Receptor

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Editorial

2008 is a great year for the country, as our sports persons made us proud by getting 3 medals in Beijing Olympics. *Abhinav bindra* brought gold medal in an individual event for the first time in 108 year Indian Olympics history.

What this shows is that nothing is impossible, if a person determines to work hard and focus on what he is doing till last moment, as *Mr Bindra* gave his best shot in the last round. We all can learn a lesson or two from the success of *Mr Bindra*.

Coming back to this new magazine, which was conceptualized few months back and we were thinking of giving a suitable name for it. Then *Dr Suyog Santosh Moon* from Mumbai suggested the name of '***Receptor***', *which sounds as one of the very basic concepts in medicine and which will be acting as a conduit for thoughts from past, present and future*. Thanks to *Suyog*.

Then we had a discussion about the contents to be included in the magazine. Many people gave lot of feed back regarding what to be included. We have included the basic contents in the first issue and we are going to improve in the coming months. We are making a small beginning and with all your support and co-operation we can make this magazine really useful to one and all.

In the inaugural issue we have two articles about opportunities in UK and Australia. We will provide more information about other countries in the coming issues. We have got people around the world, who would like to answer all your queries regarding the opportunities in various countries. We have included Andhra 2008 paper and All India model Paper. There are High yield topics in dermatology and pathology. Besides these, there are many other features which you may find interesting.

I would like to thank all our editorial team in India and Overseas, who gave constant encouragement and support to start this magazine.

Do you have something to say about an article in the current issue of receptor? This is your magazine and we would really like to hear from you.

e-mail us at **receptor@in.com**

Dr Rama Gopal Edara

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NEWS CORNER

Beijing Olympics Fallout: Drug Shortage in India

The Pharmaceutical industry could become one of the unlikely casualties of the Beijing Olympics. China has shutdown several industries including all polluting ones almost a month before the Olympics and those will remain shut for a while now.

India imports about 80% of its raw materials from China for its estimated Rs.50,000 crore Pharmaceutical industry. While two thirds of it is sold in our domestic market, India exports one third of its pharmaceutical produce and these are expected to be down by at least 75 percent from October.

Essential medicines including antibiotics, pain killers, drugs for Tuberculosis and diabetes could be among the first to go off the shelves of chemists across the country.

While most whole sale Pharmaceutical dealers hold stocks that can last till September, India may not be feeling the effects now. In the next 2 months it could get difficult to get medicines unless the Pharmaceutical industry is able to source from alternate suppliers.

World's first Health Insurance policy for HIV+ persons launched

In a first of its kind initiative that is expected to bring respite to lakhs of HIV+ individuals across the country Star Health and Allied Insurance Company has launched a health policy, which will cover illnesses of such individuals arising due to his/her weak immune system.

The group medical insurance policy meant exclusively for HIV+ patients would cover hospitalisation expenses incurred on opportunistic acquired infections. Although, the most common acquired infections affecting HIV+ individuals like, Tuberculosis and Gastroenteritis will not be covered under the policy.

The policy will also not cover any treatment for HIV like Anti Retro Viral therapy (ART), but would only cover illnesses arising out of a weak immune system.

The policy would also take care of expenses of the insured patient if he/she is declared a full blown AIDS patient. In such cases, the lump-sum amount insured as per the policy is paid to the patient.

India to help WHO define counterfeit drugs

A World Health Organization (WHO) committee International Medical Products Anti-Counterfeiting Taskforce (IMPACT) has initiated steps to take India on board while proposing a change in the definition of counterfeiting at the next World Health Assembly.

The new definition says any "false representation in relation to identity, history or source" would be considered a case of counterfeiting.

The significance of the move stems from fears that the new definition could lead to India's authorised exports of genuine drugs being termed counterfeit, if, by no fault of the exporters, the medicine is smuggled into a different foreign destination. India has opposed the new definition saying it goes beyond the issue of "quality, safety and efficacy", and could be used as a tool to project India as a centre of substandard and counterfeit drug production. India also called for further discussions among the WHO member countries to arrive at a consensus on the definition of "counterfeit" to avoid genuine medicines being tagged as counterfeit — a term normally associated with illegally produced or supplied medicines that may or may not conform to quality specifications. India had also stated that a generic or branded medicine not registered in a particular country, but available in that country (by whatever means) is not counterfeit but simply an unregistered product.

Medical Tech Park to come up near Chennai by 2012

In order to cut costs of healthcare equipment and research for new vaccines, government of India has decided to set up a medical technology park in Chennai. The proposed park, expected to be completed by 2012, will be equipped with medical device manufacturing units, healthcare infrastructure and vaccine technology facilities. The government which plans to provide some financial benefits for companies and also invite international companies into the park expects the medical park will enable us to manufacture cost-effective medical equipment for the country. The vaccine park will research on developing new vaccines.

Nine Kyrgyzstan doctors jailed for infecting kids with HIV

A court in Kyrgyzstan, a former soviet republic, has jailed nine doctors for infecting children with HIV. The doctors were sentenced to prison terms ranging from three to five years and ordered to pay 10,000 dollars in damages and interest to the children and their families, after being found guilty of negligence.

Prosecutors said 41 children and four mothers were contaminated in four different hospitals. Four doctors were sacked in July for allowing the virus, which causes AIDS, to spread. The health ministry said that the infections occurred "during injections and blood transfusions."

A similar scandal broke out last year in neighbouring Kazakhstan, where some 100 children were infected with the AIDS virus and 21 medical staff were sentenced to prison terms of up to eight years.

Study MBBS in Tamil from 2009!

From the next academic year, medical students in the state of Tamil Nadu will be given the option of choosing Tamil as the medium of instruction for their undergraduate programmes. The blueprint, jointly initiated by the vice-chancellors of four government universities, is pending approval from the state's chief minister.

In the first phase, the option will be offered at three government medical colleges — Stanley Medical College, Chennai, Tanjore Medical College, Tanjore and Madurai Medical College, Madurai. The translation of the syllabus will be completed in the next three months by a team of doctors and specialists.

The University will only do the translations for the syllabus. While there is no plan to translate any of the reference books for now it may be taken up in a phased manner later. The team involved in the translation has also decided not to translate medical terms to avoid confusion and to facilitate proper learning. The faculty will also impart lessons only in Tamil for these students.

The proposal has elicited mixed response, though the proposal has excited students and teachers of Tamil-medium schools, many professors and doctors have termed the proposal absurd.

Terror strikes Hospitals for the first time ever

For the first time ever, anywhere in the world, terror strikes in India have targeted hospital doctors, hospital workers and their families. With chilling ruthlessness, terrorists targeted hospitals in Ahmedabad to maximise casualties. Two public hospitals - Civil Hospital and L G Hospital - apart from a private hospital run by VHP's international general secretary Pravin Togadia - were targeted, killing 18 people.

The blasts were triggered by timer devices to coincide with the rush of victims from other blast sites. Two blasts at Civil Hospital near the trauma centre killed at least 15 persons, reportedly including two doctors and a medical student. The first blast took place inside an ambulance in the parking lot while the other one, planted on a bicycle, went off soon after that.

The blast at LG Hospital went off in a car parked near the emergency ward and killed at least three. When the blast rocked the hospital, injured people streaming in from other blast sites were being treated just a few metres away. Windowpanes and glasses in the ward facing the parking lot were blown off. Doctors in Ahmedabad's Civil Hospital — the worst hit by the bombings — are now battling their own fears and tragedies as they help the blast victims.

We at RECEPTOR condemn the arbitrary slaughter of innocents in the name of Terrorism. We also strongly condemn targeting of Hospitals, patients and Doctors.

Medpedia –Online Medical Encyclopaedia to Be Launched By Year End

Doctors, researchers and medical professionals in collaboration with internet majors are in the process of making the world's largest online medical encyclopaedia – Medpedia. Based on the design similar to that of Wikipedia- the online encyclopaedia - the site at www.medpedia.com will offer an online collaborative medical encyclopaedia for use by the general public as well as medical experts. However, to maintain the accuracy and update the latest medical feats' the site content will be written and edited by trained professional not less than an MD or a PhD.

Major health institutions and leading organizations including the UC Berkeley School of Public health, Stanford School of Medicine, Harvard Medical School, the National Institutes of health, the national Centres for Disease Control (CDC) and Prevention, the Federal Drug Administration (FDA) and other government research groups will contribute content to Medpedia.

Web pages with easy-to-understand information will feature content about diseases, anatomy, procedures, medications and medical facilities. Incorporating two pages for a topic, the front page will carry basic details understandable to a layman, while the second link – a technical page – will allow medical professionals to discuss the topic in a more clinical tone. Over 30,000 diseases, more than 10,000 prescription drugs and thousands of medical procedures are expected to be discussed on the online forum.

The site www.medpedia.com still under construction will be officially launched by the year's end. However, as of now contributors can apply to be included, and users can submit feedback and suggestions at the live preview site.

National Rural Health Mission Report

In the wake of the dismal state of rural health services, government may make a one-year stint in the villages mandatory for MBBS students before they can apply for a postgraduate degree.

According to the recent National Rural Health Mission report, nearly 8% of the country's 22,669 primary health centres don't have a doctor while nearly 39% were running without a lab technician and 17.7% without a pharmacist. The condition of the 3,910 community health centres, supposed to provide specialized medical care, is equally appalling. Out of the sanctioned strength, posts of 59.4% surgeons, 45% obstetricians and gynaecologists, 61.1% physicians and 53.8% paediatricians are vacant. India churns out 29,500 medical graduates annually, also, there is only one allopathic doctor for 1,634 people. According to MCI, the total number of registered allopathic doctors in the country is 6,83,582.

Doctors in UK to face regular tests of competence

Britain's 150,000 doctors will have to show they are fit to practice once every five years in the nation's biggest change to medical regulation for 150 years. Doctors falling below standard risk being struck off the medical register unless they improve, under plans published by England's Chief Medical Officer. At present doctors can only be debarred if complaints about their conduct or medical practice are upheld by regulators at the General Medical Council. Last year the GMC struck off a total of 60 doctors.

Most doctors already undergo annual peer performance reviews, looking at factors such as prescribing habits and how up to date they are on the latest medical advice and research. Under the new scheme these reviews will be standardized and patients will also be asked for their views on issues such as doctors' communication skills and ability to involve the patient in treatment decisions.

The new appraisals will begin in pilots in late 2009. Doctors will need to be recertified as competent every five years.Pharmaceutical Companies may stop free gifts to Doctors

Pharmaceutical companies in India offering any financial incentive to doctors to prescribe particular drugs may become a thing of the past if the drug manufacturers decide to follow the strict code of conduct being implemented by the Pharmaceutical Research and Manufacturers of America (PhRMA). The PhRMA is the most influential industry association of multinational drug companies in the US and had recently revised its code of business ethics, following which the companies decided to stop offering gifts or other incentives to promote drug sales.

Most of the multinational companies want their subsidiaries in other parts of the world, including in India, to follow the ethical practices they follow. The Indian Drugs Manufacturers Association (IDMA) and Indian Medical Association have also enacted its own code of conduct to restrict unethical marketing practices in drug distribution and healthcare practices. However, intense competition in the market, force most of the companies to violate the code of ethics, say industry sources.

PhRMA, which represents leading American pharmaceutical research and biotechnology companies, also insists its members to follow ethical marketing practices and focus on ways to educate the doctors on various treatment options RATHER than to promote a particular medicine.

Medical tourism needs 10000 professionals in 5 years

With medical tourism in India expected to grow 30% annually till 2012, the demand for talent is going up at a brisk pace even as it opens up a whole gamut of job opportunities in the sector. Little wonder then that a full-time course in medical tourism launched by the Indian Clinical Research Institute (ICRI) has generated a great deal of interest in the medical fraternity.

India's medical tourism is expected to be a 10,000 crore industry by 2012, up from the current 5,000 crore. Estimates also suggest that there would be a demand for 5,000-10,000 professionals specifically catering to this industry segment in the next five years. These would include international marketing professionals, patients relation managers, back office employees.

The course from ICRI would offer training in hospital & health services, financial management, marketing, OR techniques, costing and budgeting. Pricing techniques, hospitality & patient relation & conflict resolution, healthcare laws & regulations, health insurance & regulations, business ethics & corporate governance are also part of the course. A major requirement, say experts, would also be for patient relation managers who can understand the needs of people from other geographies, their food habits, language and their comfort level.

Soft skills would be in great demand. Currently, individuals with a background in medicine mainly doctors deliver such services. As the need increases and the doctors become more engaged with the medical procedures, a different pool of people would be required to man those positions.

Indian docs in Britain allege racial discrimination

The National Health Service (NHS) in Britain celebrated its 60th birthday this month. But Indian doctors — the foot soldiers of the NHS since its inception — still feel discriminated against. The British Association of Physicians of Indian Origin (BAPIO) says that immigration laws that effectively kicked 10,000 Indian doctors out of Britain in 2006 and "institutional racism" within the NHS must be reversed. Incidentally, Indian doctors represent one fifth of all NHS doctors. There are currently over 30,000 Indian doctors and 23,000 nurses in the NHS.

In 2000, faced with a severe shortage of doctors and a near collapse of the system, the British government launched a recruitment drive of Indian doctors in the UK. However, in April 2006, the UK government suddenly announced it was abolishing permit-free training for overseas doctors because many British doctors were unemployed. Nearly 10,000 Indian doctors who had gone to Britain to take the Professional and Linguistic Assessments Board Test (PLAB) were forced to leave.

A successful court ruling in November 2007 that allowed Indian doctors be treated on a par with their EU counterparts, gave BAPIO some hope. But a quota system still exists in the NHS that gives first preference to EU doctors. Physicians from other parts of the world are considered for employment only if there are no suitable candidates from the EU countries.

The BAPIO alleges that racism exists in NHS. "There is institutional racism in the NHS. Indians are rarely promoted to posts like senior consultant or professors, as British doctors are preferred," alleges Dr Mehta. The NHS, however, says it is committed to racial equality.

Docs with foreign PG from France, Germany, Russia, Denmark, Ireland, Sweden, Italy, Singapore, South Africa and Spain set to get Govt's nod

In a bid to allow Indian doctors practising abroad to return and plug the acute shortage in healthcare back home, the government may soon recognize postgraduate medical degrees of 10 foreign countries.

Degrees from France, Germany, Russia, Denmark, Ireland, Sweden, Italy, Singapore, South Africa and Spain are under consideration, which will allow Indian doctors settled in these countries to return home and practise without even a physical verification, health ministry officials said. The move was aimed at reducing the country's shortage of trained doctors, especially in super speciality disciplines. So far, doctors who had completed MBBS from a recognized university in India and completed the PG degree from any of these countries were unable to return and practise in India as their PG degrees were not recognized.

The intention also comes four months after the ministry allowed Indian doctors with PG degrees from UK, US, Canada, Australia and New Zealand to return and practise in India in any public or private hospital. The ministry is also working on amending the Indian Medical Council Act, 1956, to allow Indian doctors returning home from these 15 countries to automatically become a faculty member of a medical college, if they want to teach under-graduate students.

So far, India recognized the PG degree of a foreign country only as a reciprocal gesture, limiting the bracket to Ireland, Bangladesh and Nepal which recognized Indian degrees. However, the shortage of both doctors and faculty has made the health ministry reconsider the rule. India is increasing its number of PG seats and medical institutes offering PG degrees. Six new AIIMS-like institutions are coming up. All these will require specialized faculty which can't be generated from the present pool, so, the government is trying to remove all barriers for Indian doctors to return.

Special laws to provide protection to medical professionals in AP, TN & Maharashtra

Any uncalled for attack on a doctor or a medical institution in the State will henceforth attract imprisonment of three to 10 years, according to ordinances promulgated recently in 3 states.

The ordinance, providing protection to medical professionals, in TN is on the lines of a law enacted in Andhra Pradesh. Maharashtra is expected to pass a special act soon. The ordinances, a long-pending demand of doctors both in the private and the public sector, provides protection to all registered doctors, nurses, students of medicine and nursing and paramedical workers.

Recently, the media has contributed significantly to doctor-bashing recently. Stories of alleged negligence with a little masala, and a sobbing relative after the death of a person help increase their TRPs. Watching a mob attack a clinic or hospital on TV makes many feel that this can be done with impunity, as police often watch helplessly.

There have been mixed reactions about the Act in the medical community. While some doctors have expressed gratitude, many wonder what the need is to enact a law that creates special provisions for a privileged class. It is felt that, the existing laws are more than adequate to take care of vandals and those who break the law. The alternative to enforcement by police and prompt delivery of justice cannot be another law.

UK paves way for Indian doctors, to ease restrictions

Indian doctors wishing to practice in the United Kingdom will soon find it easier to work there, and will be spared going through rigorous screening procedures. In what can be viewed as a positive response to the Indian Health Ministry's decision to recognise foreign postgraduate degrees in medicine, the UK has now decided to proceed in the same direction. The decision also comes in the wake of a court case won by Indian doctors in Britain who protested a proposed legislation banning the recruitment of overseas doctors.

But now, according to sources in the Indian Health Ministry, the UK Department of Health has asked its counterpart in India to formulate a joint working group, which will work on the details of the new plan. Earlier this year, Union Health Minister Anbumani Ramadoss had announced that Indian doctors with postgraduate degrees in medicine from the UK, US, Canada, England and New Zealand would be allowed to practice in India. While, the other countries are still to get back to India on the issue, the UK's move to work jointly with the Indian Government comes as good news for doctors here.

The case has been won by the Indian doctors and if the UK Government also recognises the degrees of the Indian doctors, they will not have to go through PLAB (Professional and Linguistic assessments Board) Test, which is mandatory for the doctors to practice.

Ask the expert?

Readers are encouraged to send in their queries regarding various post graduate entrance examinations in India and abroad, career opportunities in various countries etc., We have got editors across the globe, who would like answer your queries. Please write to us or email us at

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This is *your* magazine.
We want to hear from you!

IT WORKS IN PRACTICE

Do you have ideas you'd like to share with colleagues around the world?
Tips, techniques; simple or sophisticated; well-tried or innovative; something that has worked well for you?
All published contributions receive cash prize!
Write to us or e-mail:

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TALKBACK!

Do you have something to say about an article in the current issue of receptor?
This is your magazine and we would really like to hear from you.
Write to us or e-mail:

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Writing for *Receptor*

Would you like to write for Receptor? We are always interested in new writers and fresh ideas. For guidelines and advice, write to us or e-mail:

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END OF THE ROAD

FOR THE IMG?

On 5 July 1948, the National Health Service (NHS) was launched with the proud expectation that it would make the UK the 'envy of the world' by Lord Aneurin Bevan

At this time, there were not enough doctors to run a good service, so doctors from the Indian Subcontinent were invited and recruited in large numbers. The medical qualifications of, for e.g. Indian doctors were recognized for direct employment and there are stories about a red carpet welcome being accorded to the first doctors to join the NHS.

However once they started working, things were not so rosy. They were subjected to various kinds of subtle and not so subtle differences in treatment. The BBC from time to time telecasts a programme which shows the treatment meted to these pioneers from overseas, who are reputed to have been the back bone of the NHS and without whom it is even now acknowledged that the NHS would have collapsed!

There is even a story about one doctor who did not have a key to his own surgery though his domestic help who cleaned the surgery had one. He reported on time every morning and would wait outside his surgery, but refused to enter the surgery till he was given his own key and won in the end due to his principled stand!

All that is history, you might say! Well history is known to repeat itself, albeit in a slightly different form. Suddenly the same medical qualification that was deemed equivalent, became unsuitable on its own and the PLAB was introduced around 1976, if memory serves me right!

The PLAB, which is in 2 parts, had to be taken in the UK and since the trip to UK was expensive, most people who could manage the trip stayed back to complete it. In violation of the existing local laws, many people shared accommodation and crowded into buildings meant for 4 people, and managed to survive on meagre rations with little or no comforts.

However, the very next day after passing PLAB, you were assured of a good job, even the luxury of being able to choose the best of several! Occasionally people like me, who used to go to London to attend courses and exams, would stay there and in the evenings, give them some tips about MCQs on Anaesthesia (in my case) and generally answer some questions and give them some encouragement.

In recent years, a combination of increase in output of medical students, increased number of doctors taking and passing PLAB, increased number of IMGs securing training posts and general change in rules to make things more even (Calman's recommendations for training being implemented), saw for the first time, a hitherto unheard of phenomenon!

Suddenly for the first time in recent years, local, 'home grown' British doctors found themselves unemployed. Organisations like British Association of Physicians of Indian Origin (BAPIO) pointed this out to GMC a few years ago, and requested GMC to include a warning to doctors taking PLAB (which GMC eventually did!).

Despite this, many IMGs continued to take PLAB and the pass rates were quite high. Things reached a head when Post Graduate selection to various training posts was carried out entirely online and then followed by interview. Usually, till then, one would apply to individual Deaneries or hospitals and then if shortlisted would be called for interview and then if successful, appointed.

Now, the number of British doctors who could not obtain a training post rose to thousands and thousands had to migrate to other countries like Australia and New Zealand.

The public and professional outcry prompted a knee-jerk reaction from the Dept. of Health (DOH) and they promptly announced a major change in Immigration rules which made most trainees from overseas, including those who were in the middle of their training programmes, ineligible to apply for further training posts.

Therefore, if you are from outside the European Union (EU), you need a work permit to secure even a training post. Before this, doctors were allowed 4 years of 'Permit Free Training' after which they could take up employment if their employer was willing to apply for a Work Permit for them.

However, to apply for a Work Permit, the employer needs to satisfy the Department For Education and Employment (DFEE) that there are no suitable local candidates available and

that service would be disrupted without employing the overseas candidate.

This automatically rendered several thousands of IMGs ineligible to continue their training. BAPIO did the unthinkable and took the DOH to court and after a long and hard struggle, gained a historic victory when the verdict was that the DOH was wrong. So IMGs on HSMP were eligible to apply for training posts!

For those not aware of this, there is a category known as HSMP (Highly Skilled Migrant Programme) which is a points based system that takes into consideration one's skills and matches it to the need of the country and many IMGs were already on this programme (which gives right of stay) and once the HSMP is extended, it virtually assures permanent residency and can lead to citizenship. Even those on HSMP were told that they needed work permit.

All these hurdles had been overcome by the court's verdict, and those who were already in UK on these visas, could breathe a sigh of relief and continue. However, anyone trying to get a job in the UK from now on, be it a training or a non-training post, would need a visa and the only visa they can get is a Work Permit. As we have seen already, this needs the employer to show a desperate need for the employee, which is hardly likely when thousands of British doctors are forced to seek employment in other countries.

Surprisingly, there are still a few doctors taking the PLAB exam, particularly those who had taken one part and wanted to complete the second part. As it stands, at present, the only way one can get a job in the UK is by obtaining a Work Permit and as we have seen, that is well nigh impossible!

So I ask myself, and so should you: 'Is this the end of the road for the IMG?'

Dr C G Nanda Kumar
Consultant Anaesthetist
Calderdale & Huddersfield NHS Trust
UK

Writing for Receptor

In the hope that reading *Receptor* has made you feel you would like to send in an article of your own, here are some guidelines to help you with your writing and us with our editing.

Readership

Receptor is a magazine for medicos and medical PG aspirants. The majority of the readers are aspirants of various post graduate courses in India and abroad.

Subject matter

Receptor has a number of regular sections and some occasional sections, as you will see if you look through the magazine. We welcome contributions for any of these sections.

Length

The length of your article will depend on the topic and maybe on the section for which you are submitting it, but try to be brief. Remember that *Receptor* is read by people like you: readers appreciate something that is clearly written and succinct.

Presentation

Please type your article on A4 paper, double-spaced and with wide margins. Send one copy to *Receptor* and keep one copy for your own reference. Alternatively, you can send your article on email to receptor@in.com

If you are sending any related photographs or illustrations, please attach with the article.

Publication

It will be assumed that your article has not been published in any other publication and that it is not being considered by any other publication. If your article is accepted, be prepared to revise it if necessary.

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OPPORTUNITIES FOR OVERSEAS DOCTORS IN AUSTRALIA

There is currently a shortage of doctors and nurses in Australia, particularly in regional areas.

General practitioners or specialists can apply for a visa to work in Australia if they have obtained their primary medical qualification in a country other than Australia or gained their medical qualifications in Australia and are not an Australian permanent resident.

Nurses are currently in high demand in Australia with opportunities for permanent and temporary work available.

Detailed information on working in Australia and how to register as a doctor is available on the DoctorConnect website. This includes:

information on Australia's healthcare system

- How to find a job
- Contact information for medical recruitment agencies
- Details on the process for obtaining full medical registration and specialist recognition in Australia
- Information on programs to assist employers in rural and regional areas
- Contact details for medical boards, professional associations, and government agencies.

The DoctorConnect website is an Australian Government initiative. It has been developed by the Department of Health and Ageing for doctors trained outside Australia and Australian medical employers.

Requirements for practice

Doctors who wish to practise in Australia must first be registered with the Medical Board in the State or Territory where they intend to practise.

After the visa is granted, doctors must apply to the Health Insurance Commission for a Medicare Provider Number if they will be working in general practice or will be prescribing drugs.

Full details on registration requirements and Medicare are available on the DoctorConnect website.

Visa Options for Doctors

There are a number of visa options available for doctors.

Doctors can apply for either a temporary or permanent visa.

For immigration purposes, doctors seeking permanent residency in Australia must hold full medical registration. The department will accept one of the following certificates issued by the State or Territory Medical Board as evidence of full registration:

- ï full/unconditional/general medical registration
- ï conditional specialist registration - this registration allows you to practise only in your particular speciality, with no further training or supervision requirements.

Note: The Australian State and Territory Medical Boards are responsible for the registration of all medical practitioners. However, in the case of specialists, the Medical Boards require an assessment from the relevant Australian Specialist Medical College before registering a doctor for practice in their field of specialisation. The decision to grant medical registration is entirely up to the relevant State and Territory Medical Board.

Temporary Visa Options for Doctors

Doctors who do not yet hold full medical registration in Australia can be employed and sponsored as a temporary resident while they are in the process of meeting the requirements to obtain full medical registration.

The following are the three types of temporary visas

Temporary Business (Long Stay) visa (Subclass 457)

The Temporary Business (Long Stay) visa is the preferred temporary visa pathway for doctors entering Australia. This is because it allows employers to take advantage of the following streamlined processing arrangements.

- ï employers and doctors are able to use a special online application form
- ï employers can have one sponsorship agreement to

cover multiple doctors, nurses and other staff employed by the same employer

- once a sponsorship agreement has been approved, employers can nominate doctors through a nomination application that is much simpler than a full sponsorship application.

With this visa you can employ overseas workers for a period of between three (3) months and four (4) years.

With this visa those people you employ from overseas can:

- work in Australia for a period of between three (3) months and four (4) years
- bring any eligible secondary applicants with them to Australia – secondary applicants can work and study
- after entering Australia, have no limit on the number of times they travel in and out of Australia.

Medical Practitioner visa (Subclass 422)

Doctors should generally apply for a Temporary Business (Long Stay) visa (subclass 457) but this visa is an alternative visa for doctors registered to work in Australia. Employers must lodge a separate sponsorship application for each doctor sponsored.

In limited situations, such as where a rural community or local council is seeking to sponsor a doctor, this visa will be the most appropriate visa.

The medical practitioner visa allows foreign nationals, who are medical practitioners, to work in Australia for a sponsoring employer for three (3) months to four (4) years.

This visa is for doctors (general practitioners and specialists).

The doctors can be either:

- overseas-trained doctors
- overseas students who have completed their medical degree in Australia.

With this visa those doctors you employ from overseas can:

- work in Australia for a period of between three (3) months and four (4) years
- bring any eligible family members with them to Australia – family members can work and study
- after entering Australia, have no limit on the number of times they travel in and out of Australia.

Occupational Trainee visa

Some doctors coming to Australia to undertake a supervised training program may be able to apply for an Occupational Trainee visa for up to 12 months. The doctor must be appointed to a designated training position that is not primarily service-providing in nature. Organisations providing occupational training programs must apply to nominate doctors for this visa.

This temporary visa is for people from outside Australia who want to improve their work skills through training with an Australian employer.

An occupational training program needs two parties:

- an occupational trainee
- an Australian based nominating organisation to provide the training.

The applicant must pay a non-refundable visa application charge when they lodge a visa application

This visa may be valid for up to two years to undertake a training program (subject to the length of the approved training program). An additional two months may be added beyond the training end date to allow you and your family members to make arrangements to leave Australia or to apply for another visa.

Note: If the training cannot be completed in the approved visa period, you can apply for a second occupational trainee visa. You and your nominating organisation must meet eligibility requirements again.

Permanent Visa Options for Doctors

There are several different permanent visas available for doctors who have full medical registration in Australia.

Australian organisations (businesses, communities or government agencies) can sponsor overseas doctors to work in Australia for up to 4 years.

Temporary visas are the usual pathway to permanent residence for doctors who do not yet hold full medical registration in Australia. Overseas trained doctors can commence a period of supervised practice and formal assessment in Australia to meet the requirements for full medical registration.

Once full medical registration is held, doctors may choose to apply for permanent residence under one of the following employer-sponsored or independent visas.

The following are the types of permanent visas

Employer Nomination Scheme (Subclass 121/856)

The Employer Nomination Scheme allows Australian employers to sponsor employees who are foreign nationals for a permanent visa to work in Australia

This visa is for Australian employers who want to sponsor highly skilled workers for a permanent visa to work in Australia. The employees can be either:

- highly skilled workers from overseas
- highly skilled temporary residents currently in Australia.

This visa allows you and any dependent family members included in your visa application to live as permanent residents in Australia.

Australian permanent residents can:

- live and work in Australia on a permanent basis
- study in Australia at school or university
- receive subsidised healthcare through Medicare and the Pharmaceutical Benefits Scheme (PBS)
- access certain social security payments (subject to waiting periods)
- be eligible for Australian citizenship (subject to the residency eligibility criteria)
- sponsor people for permanent residence.

Regional Sponsored Migration Scheme (Subclass 119/857)

The Regional Sponsored Migration Scheme (RSMS) is for employers in regional Australia, to fill skilled positions they are unable to fill from the local labour market.

Under the RSMS, employers are able to nominate staff from overseas or temporary residents currently in Australia to fill full-time, permanent vacancies.

The employees applying for a visa can be either of the following:

- skilled workers from overseas
- skilled temporary residents.

This visa allows you and any dependent family members included in your visa application to live as permanent residents in Australia.

Australian permanent residents can:

- live and work in Australia on a permanent basis
- study in Australia at school or university
- receive subsidised healthcare through Medicare and the Pharmaceutical Benefits Scheme (PBS)
- access certain social security payments (subject to waiting periods)
- be eligible for Australian citizenship (subject to the residency eligibility criteria)
- sponsor people for permanent residence.

Labour Agreements

Labour Agreements are formal arrangements to recruit a number of overseas skilled workers. Both temporary and permanent visas can be granted under the agreement. Agreements are generally effective for 2 to 3 years.

With this programme the employer can employ a number of overseas workers on temporary and/or permanent visas.

Temporary Visa

With this visa those people you employ from overseas can:

- work in Australia for up to four (4) years
- bring any eligible secondary applicants (including in the Temporary Business (Long Stay) Subclass 457 visa, an interdependent partner and children of the interdependent partner) with them to Australia, secondary applicants can work and study
- after entering Australia, have no limit on the number of times they travel in and out of Australia

Permanent Visa

With this visa those people you employ from overseas, and any dependent family members included in their visa application, can live as permanent residents in Australia.

Australian permanent residents can:

- live and work in Australia on a permanent basis
- study in Australia at school or university
- receive subsidised healthcare through Medicare and the Pharmaceutical Benefits Scheme (PBS)
- access certain social security payments (subject to waiting periods)
- be eligible for Australian citizenship (subject to the residency eligibility criteria)
- sponsor people for permanent residence.

General Skilled Migration

This programme, also known as the General Skilled Migration programme, is for people who are not sponsored by an employer and who have skills in particular occupations required in Australia. Applicants must be over 18 and under 45 years of age, with good English language ability, and recent skilled work experience or a recently completed eligible Australian qualification.

Applicants must also have skills and qualifications for an occupation listed on Australia's Skilled Occupation List (SOL).

The above information is also available online.

Please visit

http://www.immi.gov.au/skilled/medical-practitioners/visa-options-doctors.htm

http://www.amplelife.org/html/healthcare-providers.htm

— ***Dr Chaitanya Kotapati***
Australia.

Toppers Interview

Dr Narendra Reddy scored **1st rank** in highly competitive Andhra Pradesh post graduate MD/MS/Diploma Entrance Exam (APPG) 2007. Dr Narendra has scaled the pinnacle of success only by sheer hard work and dedication. At present he is pursuing M.D (Radiology) at Osmania General Hospital, Hyderabad.

Receptor : What is the secret of your success in APPG exam?

Dr Narendra : My commitment & dedication.

Receptor : How much time do you think one requires for serious preparation for this examination?

Dr Narendra : Atleast 6 hours a day.

Receptor : When did you seriously start preparing for this exam?

Dr Narendra : During the Internship.

Receptor : Which books did you read for the theory part?

Dr Narendra : Textbooks of all the subjects & Question banks.

Receptor : Which books did you read for MCQ revision? Which revision books were the most productive and which were least?

Dr Narendra : I read Amith, Ashish (for AIIMS), Mudit Khanna (AI), Choudhary (PGI). These I thought to be more productive.

Receptor : What do you think is the better way of preparation between selective, intensive study and wide, extensive study? What did you choose as your style of studying?

Dr Narendra : I think selective, intensive concept oriented study is the best of all.

Receptor : Did you attend any coaching? Were they useful?

DrNarendra : No. I think coaching centre aid in orientation.

Receptor : What was your daily timetable during the preparation? Why did you decide on such a timetable? Were you able to stick to the timetable strictly?

Dr Narendra : I have planned for a 6 hrs daily consistency during my preparation period inspite of any hurdles.

Receptor : Which subjects did you focus on?

Dr Narendra : Mainly Medicine, Surgery, Gynaecology, Paediatrics. Also Paraclinicals.

Receptor : What was your strategy for the revision? How many revisions did you do?

Dr Narendra : I have revised the subjects briefly and did it twice.

Receptor : What was your strategy for the exam day?

Dr Narendra : Nothing special.

Receptor : What is your advice to the future aspirants?

Dr Narendra : Hard work, commitment, dedication, revision of the subjects, and finally an open mind approach for solving the questions.

Receptor would like to publish interviews featuring rankers in various PG entrance exams held recently. If you have scored a rank in any PG entrance exam and want your interview to be featured in Receptor, please get in touch with Dr Rama Gopal at receptor@kalambooks.com. If you want to interview someone, who got a good rank, please let us know.

APPG -2008

Questions

1. **What is the action of anterior fibres of deltoid ?**
   - **a** flexion
   - **b** lateral rotation
   - **c** flexion and medial rotation
   - **d** extension and lateral rotation

2. **Which is not lined by stratified nonkeratinised squamaous epithelium ?**
   - **a** hypopharynx and laryngopharynx
   - **b** oesophagus
   - **c** cornea
   - **d** tympanic membrane

3. **Which of the following is not supplied by posterior division of obturator nerve?**
   - **a** obturator externus
   - **b** obturator internus
   - **c** adductor magnus
   - **d** both a and c

4. **Which of the following is true about the starting course azygous vein course**
   - **a** superior venecava
   - **b** posteriorly to inferior venecava
   - **c** anterior lumbar vein
   - **d** none

5. **Which of the following is not present at birth ?**
   - **a** mastoid tip
   - **b** mastoid antrum
   - **c** ethmoidal labrynth
   - **d** endolymphatic sinus

6. **Which is the critical temperature of nitrous oxide ?**
   - **a** -118 ^{o}C
   - **b** - 88^{o}C
   - **c** 26^{o}C
   - **d** 36.5^{o}C

7. **Which of the following is not an amino steroid derivative ?**
   - **a** alcuronium
   - **b** vecuronium
   - **c** pancuronium
   - **d** pipecuronium

8. **What is the time gap given in train of four ?**
   - **a** 10 sec
   - **b** 20 sec
   - **c** 40 sec
   - **d** 60 sec

9. **Which of the following presents as follicular pink scaly rash of chronic type with palmoplantar involvement ?**
   - **a** pitryiasis rosea
   - **b** pitryiasis alba
   - **c** pitryrias capitis
   - **d** pitryriasis rubra pilaris

10. **Which of the following presents as chronic winter rash in woman ?**
    - **a** asteatotic eczema
    - **b** statis eczema
    - **c** atopic dermatitis
    - **d** nummular eczema

11. **Which of the following presents as keratin plug without opening ?**
    - **a** comedone
    - **b** nodule
    - **c** cyst
    - **d** milia

12. **Which of the following is not a type of lesion in leprosy**
    - **a** hypopigmented patch
    - **b** vesicle
    - **c** nodule
    - **d** raised plaque

13. **Which of the following is not the cause of charcots joint ?**
    - **a** leprosy
    - **b** syringomyelia
    - **c** diabetes mellitus
    - **d** psoriasis

14. **Which of the following is called catamite ?**
    - **a** Passive victim of sodomy anybody
    - **b** passive victim of sodomy young boy
    - **c** both
    - **d** none

15. **What is transvestism ?**
    - **a** Wearing clothes of opposite sex to be known as of opposite sex
    - **b** wearing clothes of opposite sex for sexual gratification
    - **c** contact with another person to obtain sexual satisfaction
    - **d** none

16. **Contributory negligence is a defence in ?**
    - **a** civil negligence
    - **b** criminal negligence
    - **c** ethical negligence
    - **d** none

17. **Which of the following is true about pneumothorax except**
    - **a** radiolucency of underlying lung with no bronchial markings
    - **b** shift of lung to hilum
    - **c** full radio opacity of underlying lung
    - **d** moderate ventilation of underlying lung

18. Which of the following is not true about MRI ?
- **a** MRI is useful in locating small lesions
- **b** CT is better than MRI in bone lesions
- **c** MRI is better for calcified lesions
- **d** none

19. 1 Curie equals to
- **a** 3.7 M becqueral
- **b** 37 M becqueral
- **c** 3.7 G b
- **d** 37 Gb

20. Biological half life of radioactive substance in organ depends upon
- **a** initial radioactivity
- **b** substance half life
- **c** effective half life
- **d** metabolism of organ

21. Which of the following is beneficial in Electroconvulsive therapy ?
- **a** Bilateral induction of symmetrical generalised seizures
- **b** Induction of memory disturbances
- **c** use of anaesthetic agents
- **d** pulse oxymeter use

22. When extracellular potassium is increased from 4 meq to 10 meq what will happen
- **a** resting membrane potential becomes more negative
- **b** increase in conductance of sodium
- **c** increase in conduction of potassium
- **d** Na+ K+ ATpase will be stopped

23. 5 percent dextrose is ?
- **a** hypotonic **b** isotonic
- **c** normotonic **d** hypertonic

24. What is electromyogram ?
- **a** stimulation of muscle through nerve
- **b** stimulation of muscle without nerve
- **c** direct recording of electrical activity from muscle
- **d** recording motor nerve conduction

25. Guardian of genome
- **a** p53 **b** bcl2
- **c** bcl1 **d** BRCA

26. Gene is ?
- **a** codon
- **b** anticodon
- **c** cistron
- **d** okazaki fragment

27. Which of the following is not the presentation of obstructive sleep apnea
- **a** day time somnlence
- **b** nocturia
- **c** impotence
- **d** resp. insufficiency

28. Pimozide belongs to
- **a** thioxanthines
- **b** phenothiazines
- **c** buprenorhine group
- **d** diphenyl group

29. Which of the following drug is contraindicated in pregnancy and lactation ?
- **a** mebendazole
- **b** albendazole
- **c** metronidazole
- **d** none

30. Which drug causes gynaecomazia ?
- **a** ketoconazole
- **b** fluconazole
- **c** aspirin
- **d** diltiazem

31. Which of the following untrue about wilson disease?
- **a** increased ceruloplasmin
- **b** excessive deposition of copper in the liver
- **c** high urinary excretion of copper
- **d** excessive absorption of copper from small intestine

32. Which of the following condition S4 is absent ?
- **a** pulmonary stenosis
- **b** mitral stenois
- **c** systemic hypertension
- **d** pulm. hypertension

33. In which of the following conditions pulsus paradoxus absent in cardiac tamponade ?
- **a** obesity **b** pregancy
- **c** MS **d** AR

34. Sternocleidomastoid atrophy seen in
- **a** spinal muscular atrophy
- **b** olivopontocerebellar atrophy
- **c** myotonic dystrophy
- **d** duchenes muscular dystrophy

35. Krukenberg spindle present in ?
- **a** corneal endolethium
- **b** retina
- **c** lens
- **d** ciliary body

36. Photopsia seen in ?
- **a** choroiditis
- **b** retinitis
- **c** retinal detachment
- **d** all

37. Laser trabeluoplasty done in ?
- **a** open angle gluacoma
- **b** closed angle glaucoma
- **c** angle closure glaucoma
- **d** all

38. Power of Intra ocular lens is determined by ?
- **a** keratometry
- **b** retinoscopy
- **c** ophthalmoscopy
- **d** gonioscopy/Biometry

39. Brown reflex deposition seen in mercury poisoning in ?
- **a** anterior cornea
- **b** posteror cornea
- **c** anterior lens
- **d** posterior lens

40. Precocious puberty caused by all except ?
- **a** testicular feminisation
- **b** albrights syndrome
- **c** testicular tumours
- **d** brain tumours

41. Rosette cataract seen in ?
- **a** ocular trauma
- **b** diabetes
- **c** wilsons
- **d** none.

42. Which of the following disease has consistent symptoms of tinittus ?
- **a** menieres disease
- **b** CSOM
- **c** otosclerosis
- **d** mastoiditis

43. Which of the following is not related to lateral sinus thrombosis ?
- **a** greisinger sign
- **b** tobey ayer test
- **c** gradenigo syndrome
- **d** none

44. Recently found association of bells palsy ?
- **a** HSV
- **b** herpes zoster
- **c** EBV
- **d** varicella

45. Sodium chromoglygate used in ?
- **a** phlyctenular conjunctivitis
- **b** vernal conjunctivitis
- **c** mucopurulent conjunctivitis
- **d** membranous conjunctivitis

46. Most common site of cholesteatoma ?
- **a** prussaks space
- **b** hypotympanum
- **c** antram
- **d** none

47. Quinsy related to ?
- **a** paratonsillar fossa
- **b** peritonsillar fossa
- **c** crypta magna
- **d** none

48. External carotid artery is ligated at ?
- **a** above the origin of sup thyroid artery
- **b** below the origin of sup thyroid artery
- **c** at the bificuration of common carotid artery
- **d** at the origin of ascending palatine artery

49. A boy presents with unilater purulent foetid discharge from nose?
- **a** foreign body
- **b** polyp
- **c** allergic rhintis
- **d** all

50. Which is false about natal teeth ?
- **a** always present at birth
- **b** 2 incisors of mandibular teeth
- **c** severe root resorbtion problems associated
- **d** not removed

51. What is the most common organism causing spinal epidural abscess ?
- **a** staph aureus
- **b** streptococcus
- **c** bacteriods
- **d** H .influenza

52. What is the deformity seen in fixed adduction of hip ?
- **a** apparent shortening
- **b** apparent lengthening
- **c** true shortening
- **d** true lengthening

53. 10 year old boy presents with pain in the hip with flexion adduction problem, cause ?
- **a** perthes disease
- **b** transcervical fracture of neck
- **c** TB hip
- **d** Transient hip

54. Which is not secreted by stomach ?
- **a** lipase
- **b** pepsinogen
- **c** HCl
- **d** all

55. Which part of brain most often contused in RTA ?
- **a** frontal
- **b** parietal
- **c** occipital
- **d** temporal

56. Which of the following is not a barrier method ?
- **a** centchroman
- **b** Today
- **c** barrier
- **d** none

57. Which of the following associated with endometrial cancer?
- **a** metropathica haemorrhagica
- **b** dysgermniona
- **c** fibroid
- **d** all

58. Which is not true about CTEV ?
- **a** equinus of talus
- **b** varus of heel
- **c** shortened tendo achilles
- **d** triple arthrodesis is optimal treatment

59. Most common cause of fracture of neck of talus ?
- **a** fall from height
- **b** plantar flexion
- **c** dorsi flexion
- **d** inversion

60. Which is false about turners syndrome ?
- **a** mental retardation
- **b** digital deformities
- **c** web neck
- **d** short stature

61. False about klinefelters ?
- **a** most common syndrome of sex gene involvement
- **b** most common cause of Hypothalamic hypogonadotropic failure is males
- **c** mental retardation common
- **d** serum FSH levels are consistently high

62. Most common cause of perisent diarrhea in children ?
- **a** rota virus
- **b** E coli
- **c** Cholera bantti
- **d** Salmonella

63. In which of the following conditions oxygen delivery is least to muscles ?
- **a** Person inhaling 100 percent oxygent at the top of mount everest
- **b** Marathon runner at sea level
- **c** person with carbon monoxide poisoning
- **d** none of the above (this option none of the above was also there)

64. Hb o2 dissociation curve to left by ?
- **a** increase pH
- **b** Increased PCO2
- **c** Increased 2.3. DPG
- **d** Exercise

65. Blood flow to brain is not influenced by ?
- **a** paco2
- **b** po2
- **c** cerebral circulation
- **d** systemic circulation

66. Which of the following is least in protein quality ?
- **a** gelatin
- **b** lactalbumin
- **c** albumin
- **d** cashewnut protein

67. Which of the following is K channelopathy ?
- **a** episodic ataxia 1
- **b** familial hemiplegic migraine
- **c** myotonia
- **d** paramyotonia

68. Which of the following is not true about berry aneurysms ?
- **a** rupture leading to SAH
- **b** most common in post circulation
- **c** associated with polycystic kidney disease
- **d** are usually asyptomatic

69. Untrue about aneurysm in brain ?
- **a** SAH
- **b** intraventricular haemorrhage
- **c** papilledema
- **d** vasospasm

70. Which is most commonly deficient in TPN ?
- **a** zinc
- **b** chromium
- **c** selinium
- **d** magnesium

71. What type of RBC seen in chronic renal failure ?
- **a** microcytic
- **b** macrocytic
- **c** normocytic
- **d** none

72. Most common cause of thyrotoxicosis in childhood?
- **a** toxic nodular goitre
- **b** toxic adenoma
- **c** graves disease
- **d** thryotoxicosis factitia

73. Least plasma halflife ?
- **a** dehydroepiandrostendione
- **b** aldosterone
- **c** norepinephrine
- **d** dapsone

74. Assocatied with conns syndrome ?
- **a** low plasma renin
- **b** low aldosterone
- **c** both
- **d** none

75. Not associated with barterrs syndrome ?
- **a** hypokalemia
- **b** recurrent weakness
- **c** hypertension
- **d** none

76. Most common presentation in endemic goitre ?
- **a** hypothryoidism
- **b** adenoma
- **c** diffuse goitre
- **d** all

77. Which of the following is not malignant ?
- **a** adenolymphoma
- **b** adenoid cystic carcinoma
- **c** acinic cell carcinoma
- **d** none

78. Which of the following is associated with destruction of valves ?
- **a** acute infective endocarditis
- **b** libman sach's endocarditis
- **c** rheumatic Heart disease
- **d** all

79. Which of the following is not the cause of Myocardial infarction ?
- **a** coxsackie B
- **b** lead poisoining
- **c** SLE
- **d** none

80. Which of the following is dimorphic fungi ?
- **a** sporothtrix schenki
- **b** cryptococcus
- **c** trichophyton
- **d** candida albicans

81. What is the size of particle is rapid sand filter ?
- **a** 0.1 mm **b** 0.2
- **c** 0.5 **d** 0.4 to 0.7 mm

82. What is diagnosed by xenodiagnosis ?
- **a** chagas
- **b** malaria
- **c** kala azar
- **d** malaria

83. Whip test is used for ?
- **a** candida
- **b** gardenella
- **c** trichomonas
- **d** LGV

84. No need to treat partner in ?
- **a** trichomonas
- **b** gardenella
- **c** herpex genitalis
- **d** candida

85. Most common cause of primary adrenal insufficiency in india ?
- **a** autoimmune **b** TB
- **c** HIV **d** all

86. Which is false about crytpogenic TB ?
- **a** age < 40 years
- **b** weight loss
- **c** definite diagnosis by liver and bonemarrow biopsy
- **d** anorexia

87. Which is not associated with ANCA ?
- **a** PAN
- **b** wegeners
- **c** HSP
- **d** Microscopic polyangitis

88. Most common employed sterisation technique ?
- **a** pomeroys
- **b** madlener
- **c** irving
- **d** uchida

89. Pill given in lactation ?
- **a** minipill
- **b** combined pill
- **c** both
- **d** none

90. Chorangioma of placenta associated with ?
- **a** oligo hydramnios
- **b** polyhydramnios
- **c** premature labour
- **d** IUGR

91. Drug of choice in eclampsia ?
- **a** magnesium sulphate
- **b** ACE inhibitors
- **c** ringer lactate
- **d** all

92. Ligament used to maintain anteversion ?
- **a** triangular ligament
- **b** uterosacral ligament
- **c** broad ligament
- **d** round ligament

93. Which is not germ cell tumour ?
- **a** dysgerminoma
- **b** brenners tumour
- **c** clear cell tumour
- **d** mucinous tumours

94. Most common type of choledochal cyst ?
- **a** type 1 **b** type 2
- **c** type 3 **d** type 6

95. Process by which an individual gradually aquires culture and becomes a member of a social group is called ?
- **a** socialization
- **b** accultration
- **c** Socialism
- **d** custom

96. Not used in Health planning ?
- **a** increasing demands for resources
- **b** analysis of health situation
- **c** assessment of Resources
- **d** fixing priorities

97. What is not true about cross sectional study ?
- **a** also called prevalance study
- **b** tells etiology
- **c** shows pattern of disease
- **d** tells prevalance

98. What is not true about point source epidemic ?
- **a** plateau phase
- **b** no secondary waves
- **c** explosive epidemic
- **d** only one peak

99. Strain used for measles ?
- **a** edmonston **b** ra 27/3
- **c** 17 d **d** none

100. Which is not true about cephalohaematoma ?
- **a** not limited by sutures
- **b** swelling subsides in 3 months
- **c** caused by periosteal injury of skull
- **d** none

101. Most common causes of perinatal mortality ?
- **a** birth injury
- **b** intra uterine infection
- **c** birth asphyxia
- **d** LBW

102. Not seen in small for date babies ?
- **a** hypoglycemia
- **b** polycythemia
- **c** intracranial bleed
- **d** hypocalcemia

103. Diffence of LCIS from invasive carcinoma ?
- **a** age > 40 years
- **b** incidental detected
- **c** bilateral
- **d** histology similar to invasive

104. Which is not having underlying malignancy ?
- **a** paget disease of bone
- **b** paget disease of nipple
- **c** paget disease of vulva
- **d** paget disease of anal region

105. Which is not true about PBC ?
- **a** no increase in risk of hepatocellular carcinoma
- **b** OFTEN ASYPTOMATIC
- **c** elevated IgM
- **d** positive antimitochondrial antibody

106. String sign of kantor seen in ?
- **a** chrons discose
- **b** ulcerative colitis
- **c** both
- **d** none

107. Claw sign seen in ?
- **a** intussception **b** volvulus
- **c** both **d** none

108. Treament of hydatid cyst ?
- **a** excision of cyst
- **b** percutaneous drainage
- **c** conservative managment
- **d** none

109. Most common site of intra peritoneal abscess ?
- **a** morrison's pouch
- **b** omental bursa
- **c** pelvic region
- **d** left subhepatic pouch

110. Complete Rx of intussception indicates ?
- **a** free passage of barium in the terminal ileum
- **b** passage of faceus and flatus along with barium
- **c** improvement of clinical condition
- **d** none

111. Which is false about hydrocele ?
- **a** almost always fluid is transudate
- **b** get above the swelling
- **c** testis is separate from swelling
- **d** obscures inguinal hernia

112. Functional brace not used in ?
- **a** fracture neck of femur
- **b** fracture shaft of femur
- **c** fracture shaft of tibia
- **d** fracture shaft of humerus

113. Which of the following is incorrect about scaphoid?
- **a** most common carpal bone injured
- **b** non union is complication
- **c** avascular necrosis of distal part is there
- **d** x rays to be taken successively after 2 weeks

114. What is true about dequervan tenovaginitis ?
- **a** involvement of extensor pollicis brevis and abductor pollicis longus
- **b** pain and swelling over ulnar styloid process
- **c** inflammation of adductor liongus
- **d** all

115. What is incorrect about supra condylar fracture of humerus ?
- **a** extension type is common
- **b** radial nerve is injured
- **c** cubitus valgus is most common complication
- **d** all

116. Mechanism of action of mini pill ?
- **a** rendering cervical mucus thick
- **b** inhibiting ovulation
- **c** both
- **d** none

117. Incorrect about internal os of cervix ?
- **a** hegar dilators used
- **b** most common cause of first trimester abortion
- **c** both
- **d** none

118. latent period in primigravida is ?
- **a** 2 hours
- **b** 6 to 8 hours
- **c** 10 to 12 hours
- **d** 14 to 16 hours

119. Most reversible method of sterilisation ?
- **a** mini lap
- **b** pomeroys method
- **c** laparoscopic sterilisation
- **d** hysteroscopic sterilisation

120. Maltese cross (Tetrads) in RBC seen in ?
- **a** babesia **b** entamoeba
- **c** malaria **d** syphilis

121. Which is incorrect about cystic hygroma ?
- **a** brilliantly translucent
- **b** radiotherapy
- **c** sclerotherapy with bleomycin
- **d** sclerotherapy with actinomycin

122. Which of the following is not the cause of macrocytic anaemia ?
- **a** orotic aciduria
- **b** abetalipoproteinemia
- **c** lesh nyhan disease
- **d** transcobalamine deficiency

123. Not the cause of neonatal seizures ?
- **a** pyridoxine deficiency
- **b** hypokalemia
- **c** hypoxia
- **d** none

124. Anti Avidin is
- **a** biotin
- **b** thiamine
- **c** pyridoxine
- **d** folic acid

125. Which is incorrect about Burkitts lymphoma ?
- **a** High mitotic activity
- **b** High Apoptotic cell death
- **c** small nuclei proliferation
- **d** none

126. Serious complication of bacterimic shock ?
- **a** causes shock lung
- **b** decrease peripheral resistance
- **c** increase cardiac output
- **d** decrease cardiac output

127. Calcium channel blocker showing affinity to cerebral vessels ?
- **a** nimodipine
- **b** verapamil
- **c** diltiazem
- **d** all

128. Chromosome associated with familial polyposis colon ?
- **a** chromosome 5
- **b** chromosome 6
- **c** chromosome 11
- **d** chromosome 13

129. Which of the following is the cause of break of glomerular basement membrane sometimes and sub epithelial deposits in electron microscopy?
- **a** membranous glomerulonephritis (MGN)
- **b** focal glomerular sclerosis
- **c** rapidly progressive glomerulonephritis (RPGN)
- **d** minimal change (MCD)

130. Which of the following is not the branch of maxillary branch of internal carotid artery ?
- **a** inferior alveolar
- **b** middle meningeal
- **c** anterior tympanic
- **d** posterior tympanic

131. Which of the following is untrue about calcium homeostastis in chronic renal failure ?
- **a** secondary hyperparathryoidism
- **b** primary hyperparathyroidism
- **c** multiple myeloma
- **d** none

132. What is column of bertini in kidney ?
- **a** renal tumour
- **b** Tongue like papillary projection
- **c** caliculus
- **d** none

133. Skeletal muscle most sensitive to tubocurarine ?
- **a** muscles of respiration
- **b** muscles of limb
- **c** muscles of jaw and larynx
- **d** all

134. Which is not true about VVF ?
- **a** amenorrhea
- **b** hydronephrosis
- **c** uraemia
- **d** all

135. Which of the following leads to cyclical haematuria ?
- **a** vesico uterine fistula
- **b** VVF
- **c** Rectovaginal fistula
- **d** all

136. Which is correct about this ?
- **a** Sperm production is cyclical
- **b** Continous GnRH secretion is essential
- **c** sertoli cells are important for mitotic and meiotic activity
- **d** secretion of testosterone from leydig cells depends upon FSH

137. What is the stage of ovarian cancer with b/l with capsule intact, no ascites ?
- **a** IA **b** IB
- **c** IC **d** II

138. What is epicolic node ?
- **a** node draining colon
- **b** adjacent to aorta
- **c** epitracheal node
- **d** none

139. A boy draws triangle but not diamond shape age is ?
- **a** 3 years
- **b** 4 years
- **c** 5 years
- **d** 6 years

140. Which of the following is not included in Human developmental index ?
- **a** Infant mortality rate
- **b** percapita income
- **c** life expectancy at birth
- **d** Education

141. Most common presentation of Meckels diverticulum ?
- **a** Lower GI bleeding
- **b** upper GI bleeding
- **c** diarrhorea
- **d** abdominal pain

142. Bulging fissure in lung is due to infection ?
- **a** Mycoplasma
- **b** Klebsiella
- **c** TB
- **d** pnemococcus

143. Which deficiency is seen in alcoholic with dementia ?
- **a** Thiamine **b** B 6
- **c** B12 **d** folic acid

144. Which microorganism is responsible for classical presentation of hydrocephalus, chorio retinitis , intracerebral calcification ?
- **a** Toxoplasmosis
- **b** Rubella
- **c** measles
- **d** CMV

145. Which defect is not detected by amniocentesis ?
- **a** cystic fibrosis
- **b** phenyl ketonuria
- **c** downs syndrome
- **d** none

146. What is the drug of choice of antiepilepsy in porphyria ?
- **a** phenytoin
- **b** phenobarbitone
- **c** valproate
- **d** Clonazepam

147. Which type of porphyria is transmitted as Autosomal recessive ?
- **a** AIP
- **b** PCT
- **c** congenital erythropoietic porphyria
- **d** variegate porphyria

148. What is aseptic autolysis called ?
- **a** Decomposition
- **b** adipocere
- **c** mummification
- **d** none

149. What is the mechanism of abruption of SVT by carotid massage ?
- **a** decrease sympathetic discharge
- **b** increase parasympathetic discharge to SA node
- **c** increase parasympathetic discharge to conducting system from SA to AV node
- **d** ventricular depolarisation

150. Which of the following cast has no significance ?
- **a** Hyaline cast
- **b** RBC
- **c** protien
- **d** WBC

151. What is the range of proteinuria is microalbuminuria ?
- **a** 30 to 300 mg/d
- **b** 10 to 100 mg/d
- **c** 3 to 30 mg/d
- **d** 1 to 10 mg/d

152. Which semicircular canal is stimulated with cold water ?
- **a** lateral scc
- **b** posterior scc
- **c** anterior scc
- **d** medial

153. Which of the following is associated with renal stones ?
- **a** tiagabine
- **b** zonasimide
- **c** lamivudine
- **d** acyclovir

154. In which of the following conditions acetazolamide is not used ?
- **a** epilepsy
- **b** cirrhosis
- **c** meningitis
- **d** all

155. Which of the following is not the presentation of Extrinsic allergic alveolitis ?
- **a** Bronchial asthma and wheeze
- **b** B/L reticulo nodular shadows
- **c** Headache
- **d** myalgia

156. Band shaped keratopathy seen in ?
- **a** JRA **b** RA
- **c** SLE **d** DLE

157. Which of the following is incorrect about Dubin Johnson syndrome ?
- **a** alkaline phosphatase is elevated
- **b** autosomal recessive condition
- **c** conjugated hyperbilirubinemia
- **d** benign condition

158. Systolic murmur in TOF is due to ?
- **a** VSD
- **b** pulm stenosis
- **c** ASD
- **d** none

159. Which glycogen storage disease doesn't affect muscles ?
- **a** type 1
- **b** type 2
- **c** type 3
- **d** type 4

160. Cholelithiasis is due to all except ?
- **a** obesity
- **b** excessive haemolysis
- **c** high protein diet
- **d** pregnancy

161. Which is the characteristic lesion of pregnancy ?
- **a** vitiligo
- **b** pemphigus
- **c** tinea versicolor
- **d** chloasma

162. A person recently exposed to sex 14 days back presents with painless granulomatous ulcer with everted edges ?
- **a** primary chancre
- **b** chancroid
- **c** LGV
- **d** Donovanosis

163. Which type of clostridium tetani has no flagella ?
- **a** type 1 **b** type 2
- **c** type 4 **d** type 6

164. Specific congenital abnormality associated with DM ?
- **a** caudal regression syndrome
- **b** VSD
- **c** ASD
- **d** TOF

165. Fibrates acts by reducing ?
- **a** chylomicrons
- **b** VLDL
- **c** LDL
- **d** HDL

166. Shortest acting benzodiazipine ?
- **a** midazolam
- **b** lorazepam
- **c** diazepam
- **d** clonazepam

167. Severity of Aortic stenosis is determined by ?
- **a** Late ejection systolic murmur
- **b** ST -T changes
- **c** LV HYPERTROPHY with displaced apex
- **d** none

168. mRNA codes for which tail ?
- **a** poly A **b** poly U
- **c** poly C **d** poly G

169. Which of the following has propensity to metastasize through lymph nodes ?
- **a** alveolar rhabdomyosarcoma
- **b** osteosarcoma
- **c** both
- **d** none

170. Which of the following is poor prognosis factor in malnutrition ?
- **a** dermatosis **b** hepatomegaly
- **c** emaciation **d** all

171. Extended ESI benefit are all except ?
- **a** news paper establishments
- **b** non power 18 employees
- **c** non power < 18 employees
- **d** small power 10 to 18 employees

172. Which of the following is not seen due to mutiple myeloma ?
- **a** amyloidosis
- **b** proximal tube defect
- **c** light chains
- **d** none

173. Which of the follwoing condition is treated by Sacral colpoplexy ?
- **a** stress incontinence
- **b** rectovaginal fistula
- **c** retroverted uterus
- **d** vault prolapse

174. Not a contraindication for external cephalic version ?
- **a** breech presentation
- **b** obstructed labour
- **c** oligohydramnios
- **d** first baby of twin pregnancy

175. Not a leading cause of DIC in pregnancy ?
- **a** Prolonged pregnancy
- **b** abrubtio placenta
- **c** heart disease
- **d** IUP

176. Engaging diameter in brow presentation ?
- **a** mentovertical
- **b** occipiti.posterior
- **c** mento-anterior
- **d** mento-posterior

177. A blunt trauma to chest with Bp 80/50 pulse rate 100 /mt with jugular vein distention ?
- **a** cardiac tamponade
- **b** pneumothorax
- **c** arrythymias
- **d** MI

178. Which of the following doesn't change pH of stomach ?
- **a** sucralfate
- **b** H2 blocker
- **c** omeprazole
- **d** ranitidine

179. Toxicity associated with haemodialysis ?
- **a** Aluminium
- **b** magnesium
- **c** calcium
- **d** potassium

180. What is rider walker coefficent ?
- **a** Efficacy in comparision to phenol
- **b** sterilisation technique
- **c** amount of phenol used for disinfection
- **d** all

181. Which of the following doesn't cause diarrhoea ?
- **a** diabetes
- **b** hypercalcemia
- **c** hyperthyroidism
- **d** IBD

182. Which is not true about otosclerosis ?
- **a** conductive deafness
- **b** non progressive deafness
- **c** autosomal dominant
- **d** flouride is therapeutic

183. Which of the following is not associated with fulminant hepatic failure ?
- **a** herpes simplex
- **b** paramyxovirus
- **c** infectious mononucleosis
- **d** all

184. Oral hairy leukoplakia caused by ?
- **a** Ebstein barr virus **b** CMV
- **c** HIV **d** HZV

185. Contact period of chlorination ?
- **a** 1 hour
- **b** 30 minutes
- **c** 1 1/2 hour
- **d** 2 hours

186. Which of the following is not associated with vibrio cholera ?
- **a** Haemolytic uraemic syndrome
- **b** rice water stool
- **c** dehydration
- **d** none

187. Which of the following is not absorbable suture ?
- **a** catgut
- **b** polyamide
- **c** polygalactyl
- **d** polyester

188. Prognosis of breast carcinoma is best determined by ?
- **a** oestrogen/progesterone receptors
- **b** Axillary lymph node status
- **c** clinical assessment
- **d** CT

189. Sudden painless vision loss in a patient with myopia ?
- **a** Retinal detachment
- **b** Central retinal artery occlusion (CRAO)
- **c** diabetes
- **d** optic atrophy

190. Most common site of Tuberculosis of genital tract ?
- **a** endometrium
- **b** ovary
- **c** fallopian tube
- **d** cervix

191. Which of the following conditions disappear spontaneously in first year of life ?
- **a** port wine stain
- **b** Naevus flammeus
- **c** cavernous haemangioma
- **d** strawberry haemangioma

192. Which of the following is true about prostate cancer screening ?
- **a** Digital screening along with PSA is additive
- **b** Prostate cancer is common among young males
- **c** Tumor markers are diagnosed
- **d** Bleeding per rectum in earliest manifestation of disease

193. Which of the following is associated with Normal anion gap metabolic acidosis ?

a cholera
b Diabetic keto acidosis
c starvation
d vomiting

194. Gynaecomastia not seen in ?

a Myxedema
b Thyrotoxicosis
c leprosy
d ketoconazole therapy

195. Discordant twin complication in multiple pregancy is due to ?

a Twin Twin transfusion syndrome
b dizygotic twins
c fetus papyraceous
d monoamniotic twins

196. Distressing Complication after modified radical mastectomy ?

a lymphedema
b axillary vein thrombosis
c seroma
d death

197. Hyperosmolar agents in glaucoma acts by ?

a Increasing aqueous outflow
b Decreasing vitreous volume
c Decrease aqeous production
d facilitate uveoscleral outflow

198. Most common cause of death due to burns in early period is ?

a sepsis
b Hypovolemic shock
c both
d none

199. Initial management of dacrocystitis is ?

a syringing
b topical antibiotics
c massaging
d none

200. Which of the following is not a anthropozoonosis ?

a Rabies
b plague
c dracunculosis
d anthrax

*APPG 2008 Q&A Compiled by **Dr Vijaya Bhaskar Mallela** (MD)*
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APPG -2008 | Answers

1. (C) Flexion and medial rotation
(Ref. BDC/I/4th ed. Pg – 96)
- Ant. fibres flexors and medial rotators of the arm
- Post. fibres Ext and L. rotators of arm
- Acromial fibres are powerful abductors of the arm at the Sh. joint from 15°–90°.

2. (D) Tympanic membrane
(Ref. IB Singh Histology 2nd e Pg. 66, 70, 277, 291)

The mucous membrane of TYMPANIC MEMBRANE is lined by an epithelium which may be cuboidal or squamous. It is said that the mucosa over the upper part of the tympanic membrane may have patches of ciliated columnar epithelium, but this is not borne out by EM studies.

3. (B) obturator internus
(Ref. BDC vol. II, 3rd ed.)

Obturator nerve	L2 through L4	**Medial compartment** anterior divisions of thigh (gracilis, adductor longus, adductor brevis, anterior portion of adductor magnus)

Superior gemellus and obturator internus muscle are supplied by Nerve to superior gemellus and obturator internus which are branches from posterior divisions of L5 through S2.

4. (B) Posterior to inferior vena cava
(Ref. BDC 4th ed. Vol. I– 213 and Vol. II – 274)
- The azygos vein may arise from the posterior surface of IVC near the renal veins, or from the right renal vein, or may be formed by the union of right ascending lumbar vein and the right subcostal vein.

5. (A) Mastoid tip

(Ref. Langman's Medical Embryology pg. 409)

Most postnatal mastoid growth occurs in a lateral and posterior direction, with a fully developed mastoid and styloid process not appearing until the child is about age 3.

6. (D) 36.5 degree C
(Ref. Short Textbook of Anaesthesia by Ajay Yadav 2nd ed. Pg. 59)

7. (A) Alcuronium
(Ref. Short Textbook of Anaesthesia by Ajay Yadav 2nd ed. Pg. 88)

CLASSIFICATION OF NDMR
- Steroidal compounds
- Benzylisoquinoline compounds

Steroidal Compounds	Benzylisoquinoline Compounds	Others
Pancuronium	d-tubocurare	Gallamine
Pipecuronium	Metocurine	Alcuronium
Vecuronium	Atracurium	
Rocuronium	Mivacurium	
Rapacuronium	Doxacurium	
	5W89	

8. (A) 10 seconds
(Ref. Anaesthesia secretes Fig. 13-2; Pg. 88-96)

Train of four (TOF)

TOF stimulation is the most common modality used to assess degree of non-depolarising neuromuscular blockade. Four stimuli are delivered at a frequency of 2 Hz (1 every 0.5 second), and the ratio of the amplitude of the fourth to the first response in a train (T4:T1 ratio) estimates the degree of block.

9. (D) Pitryiasis Rubra Pilaris

PRP is characterized by widespread small follicular acuminate pinkish yellow scaling papules that coalesce to form patches of various sizes distributed symmetrically with palmo plantar keratoderme.

10. (A) Asteatotic eczema

Asteatotic eczema

=

Winter eczema, Eczema craquele
- Asteatotic eczema is a complication of xerosis
- It is due to decreased surface skin topid.

11. (D) Milia

A milium is a 1-2 mm superficial white to yellow keratin containing epidermal cysts.

12. (B) Vesicle

13. (D) psoriasis
(Ref. CMDT – 862)

Charcot joint = Newrogeric arthropathy

Causes: Tabes dorsalis, diabetic neuropathy, syringomyelia, spinal cord injury, Leprosy.

14. (B) Passive victim of sodomy young boy
(Ref. N. Reddy, 25th Ed. Pg – 357)
- In Sodomy when the passive agent is an adult it is called gerontophilia
- When the passive agent is child it is known as catamite.

15. (B) Wearing cloths of opposite sex for sexual gratification
(Ref. N. Reddy 25th Ed. Pg – 361)

- A transvestite is a person whose whole personality is dominated by the desire to be identified with the opposite sex
- It is usually found in the males who obtain sexual pleasure by wearing female dress.

16. (B) criminal negligence

(Ref. Reddy FMT 23rd ed. Pg. 31, 32; Textbook of FMT by Parikh 6th ed. Pg. 1.46)

Contributory negligence is a common law defence to a claim or action. It applies to a situation where a plaintiff claimant has, through their own negligence, caused or contributed to the injury they suffered. For example where a pedestrian crosses a road carelessly and is hit by a driver who is also driving carelessly.

Grievous hurt is punishable under section—IPC 320.

Perjury means giving wilful false evidence by a witness while under oath, the witness is liable to be prosecuted for perjury and the imprisonment may extend to seven years. This falls under which section of IPC → 193 of Indian Penal Code.

Section 302 of Indian penal code is for → Murder.

17. (C) full radioopacity of underlying lung.

(Ref. Grainger diagnostic Radiology 4th ed. Pg. 334)

Typical sites and signs of pneumothorax evident in the supine position include a sharply defined lucency outlining the mediastinum medially and the 'deep sulcus sign' at the lung bases. The thin line of the visceral pleura may not be visualized and the only clue may be increased and featureless lucency over the diaphragm, cardiac apex and fat pad.

18. (C) MRI is better for calcified lesions.
Disadvantages of MRI:

1. Longer time of acquisition
2. Claustrophobia.
3. Metal is absolutely contraindicated.
4. Costly.
5. Calcification is best detected by CT, not by MRI.

19. (A) 3.7 Mega Becquerel

(Ref. Grainger and Allison's Diagnostic Radiology 4th Ed.)

- The SI units of activity is the becquerel (symbol Bq) equal to one nuclear transformation per second. **3.7 × 1010 becquerels equal 1 curie (Ci) exactly**.

20. (D) metabolism of organ

(Ref. Grainger and Allison's Diagnostic Radiology 4th Ed. Pg. 239, 240)

The biological halflife; time taken for a radionucleotide to metabolise will depend upon its chemical form and upon the organ under consideration. As a general rule, the ideal radiopharmaceutical should have an effective half-life (obtained by combining the physical and biological half-lives) of the same order as the time between administration of the radionuclide and completion of the study.

21. (C) Use of anaesthetic agents

(Ref. Schatzberg's psychiatry 2nd ed. pg 528–538.)

- The majority of patients requiring ECT will need Anaesthesia ; therefore, interactions could conceivably occur between the psychotropic drugs, ECT and the anaesthetic agents utilized.

22. (C) increase in conductance of potassium

(Ref. Ganong physiology 21st ed. Figure 1–30)

Most K^+ channels are tetramers, with each of the four subunits forming part of the pore through which K^+ ions pass. Structural analysis of a bacterial voltage-gated K^+ channel indicates that each of the four subunits have a paddle-like extension containing four charges. **When the channel is closed, these extensions are near the negatively charged interior of the cell**

23. (B) Isotonic

- **Dextrose 5 per cent** is an isotonic solution that supplies calories without electrolytes. It is useful in the postoperative period when sodium excretion is reduced. It is also valuable when the salt requirements of a patient needing much fluid have been satisfied on a particular day. Prolonged administration of 5 per cent dextrose solution alone is liable to result in hyponatraemia, and may cause thrombosis of the vein used;

24. (C) direct recording of electrical activity from muscle

(Ref. Harrison's internal medicine 16th ed. pg. 2506–2507)

Electrodiagnosis

- EMG involves recording for electrical potentials from a needle electrode in muscle both at rest and during voluntary contraction of the muscle.

Electromyography is used -

- in back pain
- in constipation,
- in muscle disease,
- in peripheral neuropathy,
- in radiculopathy.

25. (A) p^{53}

(Ref. Ganong 21st ed. 27; Harper's biochemistry 27th ed. 346-347)

p53 (Policeman of human genome)

26. (C) Cistron

(Ref. Harper's Biochemistry 26th ed. 376)

The **cistron** is the smallest unit of genetic expression. The cistron is the genetic unit coding for the structure of the subunit of a protein molecule, acting as it does as the smallest unit of genetic expression.

27. (C) Impotence

(Ref. Harrison medicine 16th ed. Pg. 427)

In sleep apnea syndrome, there may occur loss of libido, but impotence is not known to occur.

28. (D) Diphenyl group

(Ref. KDT, 6th Ed. Pg – 425)

Pimozide is a Heterocyclic drug

29. (C) Metronidazole

(Ref. KDT, 6th Ed. Pg – 909)

Metronidazole, Albendazole, Mebendazole are contraindicate in pregnancy.

30. (A) Ketoconazole

(Ref. KDT, 6th Ed. Pg – 763)

- Ketoconzaole decreases androgen production from testes and it displaces testosterone from protein binding sites. Gynaecomestia, loss of hair and libido and oligospermia are manifestations.

31. (A) Increased ceruloplasmin

(Ref. MDT, Pg – 677)

- Serum ceruloplasmin, the plasma copper carrying protein is low
- Increased urinary copper excretion
- Low serum ceruloplasmin levels

32. (B) Mitral stenosis

(Ref. Harrison's Principles of Internal Medicine 16th Edition. Pg. 1308)

The *fourth heart sound* (S4)

- The *fourth heart sound* (S4)is a low-pitched, presystolic sound produced in the ventricle during ventricular filling; it is associated with an effective atrial contraction and is best heard with the bell piece of the stethoscope.
- The sound is absent in patients with atrial fibrillation.

33. (C) MS

- Paradoxical pulse occurs not only in cardiac tamponade but also in approximately one-third of patients with constrictive pericarditis. This physical finding is not pathognomonic of pericardial disease because it may be observed in some cases of hypovolemic shock, acute and chronic obstructive airways disease, and pulmonary embolus.

34. (C) Myotoric dystrophy

(Ref. Harrison's Principles of Internal Medicine 16th Edition pg. 2351)

- The clinical expression of myotonic dystrophy varies widely and involves many systems other than muscle.
- Affected patients have a typical "hatchet-faced appearance due to temporalis, masseter, and facial muscle atrophy and weakness.
- Frontal baldness is characteristic of men with the disease.
- Neck muscles, including flexors and ***sternocleidomastoids***, and distal limb muscles are involved early.

35. (C) Lens

(Ref. Basak's Ophtahlmology 2nd ed. Pg. 112)

MELANIN	Pigment dispersion syndrome (Krukenberg's spindle)	Corneal Endothelium

36. (C) Retinal detachment

(Ref. Parson's disease of eye 20th ed. Pg. 321)

Retinal detachment can remain asymptomatic for a long time. In the stage of acute posterior vitreous detachment, the patient will notice **flashes of light** (photopsia) and **floaters**, black points that move with the patient's gaze.

37. (A) Open angle glaucoma

(Ref. Lang, Ophthalmology pg. 261)

- Laser burns in the trabecular meshwork cause tissue contraction that widens the intervening spaces and improves outflow through the trabecular meshwork.

38. (D) Gonioscopy / Biometry

(Ref. Khurana ophthalmology 4th ed. 196)

CALCULATION OF *IOL* POWER (BIOMETRY)

- 'SRK' formula i.e P = A – 2.5L – 0.9K, is the most common method of determining IOL power.
- The USG machine equipped with A-scan and IOL power calculation software is called "Biometer".

39. (C) Anterior lens

40. (A) Testicular feminisation

(Ref. Harrison's Principles of Internal Medicine 16th Edition Pg. 2202; Table 326-1)

41. (A) Ocular trauma

(Ref. Khurana, Pg – 373)

Rosette cataract is the most typical form of concussion cataract.

42. (A) Menieres disease

43. (C) Gradenigo syndrome

(Ref. Dhingra 3rd Ed, Pg – 103)

Gardenigo syndrome is the triad of

(a) VIth N Palsy

(b) Retro-orbital pain

(c) Persistant ear discharge

44. (A) HSV

45. (B) Vernal Kerato Conjunctivitis

(Ref. Khurana, 3rd Ed.,)

VKC is considered a hypersensitivity reaction to some exogenous allergen (IgE mediated mechanism).

46. (A) Prussaks space

Prussak's space lies medial to pars flaccida, lateral to the neck of malleus and above the lat. Process of malleus.

47. (B) Peritonsillar fossa

48. (A) Above the origin of sup. thyroid artery

49. (A) Foreign body

(Ref. Bhargava, 166)

- Rhinolith is a concretion in the nose formed around foreign body, blood or inspissated pus.
- Concretion is due to deposition of calcium carbonate and calcium phosphate.
- Unilateral, foul smelling, blood stained discharge.
- It is removed under General anaesthesia.

50. (C) Severe root resorption problems associated

(Ref. Nelson Textbook of Pediatrics 17th edition 1206)

NATAL TEETH

- *Natal teeth* are observed in approximately 1 in 2,000 newborn infants; usually there are two in the position of the mandibular central incisors.
- Natal teeth are present at birth, whereas neonatal teeth erupt in the 1st month of life.
- Attachment of natal/neonatal teeth is generally limited to the gingival margin, with little root formation or bony support.
- They may be a supernumerary or a prematurely erupted primary tooth.
- Natal/neonatal teeth may occasionally result in pain and refusal to feed and at times may produce maternal discomfort because of abrasion or biting of the nipple during nursing.

51. (A) staph. aureus

52. (A) Apparent shortening

(Ref. Clinical orthopaedic examination by Ronald McRae 5th ed. Pg. 178)

In **apparent shortening**, the limb is not altered in length, but appears short as a result of adduction contracture of the hip, which has been compensated for by the tilting of the pelvis.

53. (A) Perthes disease

(Ref. Maheswari, Pg – 269)

- Perthes disease is an osteochondritis of epiphysis of the femoral head
- The disease occurs commonly in boys in the age group of 5-10 years
- Limitation of abduction and internal rotation and shortening.

54. (A) Lipase

55 . (A) Frontal

- Frontal and temporal lobes are most often contused in RTA.

56. (A) Centchroman

57. (A) Metropathica haemorrhagica

58. (D) Triple arthrodesis is optimal treatment

Triple arthrodesis is performed after the age of 12 years because before this the bodies are cartlagening and it is difficult to achieve fusion.

59. (C) Dorsi flexion

60. (A) Mental retardation

61. (B) most common cause of Hypothalamic hypogonadotropic failure is males

(Ref. Harrison's Principles of Internal Medicine 16th Edition pg. 2215; Table 328-1.)

62. (B) E coli

(Ref. Harrison's Principles of Internal Medicine 16th Edition pg. 879; TABLE 134-1)

Pathotype	Clinical Syndrome(s)	Defining Molecular Trait	Responsible Genetic Element
EAEC/DAEC	Traveler's diarrhea, ***Persistent diarrhea***	Aggregative/diffuse adherence	Chromosomal or plasmid associated adherence genes

63. (C) Person with carbon monoxide poisoning

(Ref. Harrison's Principles of Internal Medicine 16th Edition pg. 600)

Carbon monoxide has a higher affinity for hemoglobin than does oxygen; it can replace oxygen and diminish O2 delivery.

64. (A) increase pH

(Ref. Harrison's Principles of Internal Medicine 16th Edition pg. 210)

A *shift to the right* of the curve indicates a greater unloading of oxygen.

A *shift to the left,* conversely, indicates less unloading but slightly more oxygen loading in the lungs.

65. (B) PO2

(Ref, Ganong Physiology 22nd ed. 616)

CEREBRAL BLOOD FLOW is dependent on-Cerebral Metabolic rate, CO2, and Cardiac output.

66. (A) Gelatin

67. (A) Episodic ataxia I

(Ref. Harrison medicine 16th ed. 2339, 2363, 2536)

Disease		Pathology
1.Spinocerebellar ataxia 1	-	trinucleotide repeat (cac) Expansion in gene.
2.Episodic ataxia type 1	-	k channel gene mutations.
3.Hypokalemic periodic Paralysis	-	l-type ca^{++} channelopathy.
4.Hyperkalemic periodic Paralysis	-	point mutation sodium channel.
5.Malignant hyperthermia receptor gene.	-	mutation in ryanodine
6.Myotonia	-	mutation in cl^- channel gene.

68. (B) most common in posterior circulation

(Ref. Harrison's principles of internal medicine 16th ed. 2388)

Approximately85% of aneurysms occur in the anterior circulation, mostly on the circle of Willis. About 20% of patients have multiple aneurysms, many at mirror sites bilaterally. As an aneurysm develops, it typically forms a neck with a dome.

69. (C) Papilledema

(Ref. Harrison's principles of internal medicine 16th ed. 2388)

70. (A) Zinc

(Ref. Harrison's Principles of Internal Medicine 16th Edition pg. 420; TABLE 63-8)

71. (C) Normocytic

(Ref. Harrison's Principles of Internal Medicine 16th Edition pg. 1658)

- A normocytic, normochromic anemia attributable to CRD is observed beginning at stage 3 CRD and is almost universal at stage 4.

72. (B) Toxic adenoma

(Ref. Harrison's Principles of Internal Medicine 16th Edition pg. 2116)

Graves' disease rarely begins before adolescence and typically occurs between 20 and 50 years of age, but it also occurs in the elderly.

Multinodular goiter (MNG) occurs in up to 12% of adults. MNG is more common in women than men and increases in prevalence with age.

73. (C) Norepinephrine

74. (C) Both

(Ref. HARRISON'S PRINCIPLES OF INTERNAL MEDICINE - 16th Ed. 2039)

CONN'S SYNDROME

Conn's syndrome is primary hyperaldosteronism due to:

- o Aldosterone producing ***adrenal cortical adenoma*** (50%)
- o Bilateral idiopathic adrenal hyperplasia - idiopathic hyperaldosteronism (40%)
- o Aldosterone secreting carcinoma

75. (C) Hypertension

(Ref. Harrison's Principles of Internal Medicine 16th Edition pg. 1698)

- · Hypokalemia, metabolic alkalosis, and normal to low blood pressure are the clinical findings characteristic of Bartter's syndrome.

76. (C) Diffuse goitre

(Ref. Harrison's Principles of Internal Medicine 16th Edition pg. 2120)

Worldwide, diffuse goiter is most commonly caused by iodine deficiency and is termed *endemic goiter* when it affects 5% of the population. In nonendemic regions, *sporadic goiter* occurs, and the cause is usually unknown.

77. (A) Adenolymphoma

(Ref. Bailey 22nd ed. 475, 23rd ed. Ed. 659; robbins 5th ed. 570)

NEOPLASTIC SALIVARY GLAND LESIONS

Benign

1. Pleomorphic adenoma (mixed parotid tumor)
2. Adenolymphoma (Warthin's tumors)
3. Hemangioma in children
4. Lymphangioma in children
5. Intermediate
6. Mucoepidermoid tumors
7. Acinic cell carcinoma
8. Oncocytoma

Malignant

1. Adenoid cystic carcinoma
2. Adenocarcinoma
3. Squamous cell carcinoma

78. (B) Libman Sack's endocarditis

LSE (Libman-Sacks endocarditis) has small or medium-sized vegetations on either or both sides of the valve leaflets.

79. (B) Lead poisoning

(Ref. Harrison's Principles of Internal Medicine 16th Edition pg. 1413)

Myocarditis, i.e., cardiac inflammation, is most commonly the result of an infectious process. Myocarditis may also result from a hypersensitivity to drugs or may be caused by radiation, chemicals, or physical agents.

80. (B) Cryptococcus neoformans

(Ref. Ananthanarayan Microbiology 6th Ed, 574)

81. (D) 0.4 to 0.7 mm

(Ref. Park PSM 19th ed. 524)

82. (A) Chagas disease

(Ref. Harrison's Principles of Internal Medicine 16th Edition 1200)

Xenodiagnosis is successful in 50% of patients with chronic Chagas' disease.

83. (B) Gardenella

(Ref. Shaw 13th Edition 129)

84. (?)

We have to treat both the Partners.

85. (B) TB

(Ref. Harrison's Principles of Internal Medicine 16th Edition Pg. 2141)

- · Addison's disease results from progressive destruction of the adrenals, which must involve 90% of the glands before adrenal insufficiency appears.
- · The adrenal is a frequent site for chronic granulomatous diseases, predominantly tuberculosis but also histoplasmosis, coccidioidomycosis, and cryptococcosis.
- · In early series, tuberculosis was responsible for 70 to 90% of cases, but the most frequent cause now is *idiopathic* atrophy, and an autoimmune mechanism is probably responsible.
- · Specific adrenal antigens to which autoantibodies may be directed include 21-hydroxylase (CYP21A2) and side chain cleavage enzyme.

86. (A) age < 40 years

87. (C) HSP

(Ref. Harrison's Principles of Internal Medicine 16th Edition 2002)

ANCA are antibodies directed against certain proteins in the cytoplasmic granules of neutrophils and monocytes. These autoantibodies are present in a high percentage of patients with certain systemic vasculitis syndromes, particularly Wegener's granulomatosis and microscopic polyangiitis, and in patients with necrotizing and crescentic glomerulonephritis.

Antineutrophil Cytoplasmic Antibodies

- **cANCA = Wegener's;**
- **pANCA = Churg-Strauss + others**

Other causes of positive ANCA (usually pANCA)

inflammatory bowel disease (UC > Crohn's)

connective tissue disorders: RA, SLE, Sjogren's

autoimmune hepatitis

88. (A) Pomeroy's method

(Ref. Textbook of Gynecology by Shaw 13th ed. 236)

Tubal ligation and resection (removal) of a portion of the fallopian tube is the most frequent method of blocking the tubes. This involves tying a segment of tube and removing it. There are many variations of this technique. The tubal ligation procedure described by Dr. Ralph Pomeroy a century ago is most commonly used today.

89. (A) Minipill

90. (B) Polyhydramnios

91. (A) Mag. sulphate

92. (B) Uterosacral ligaments

(Ref. Novak's Gynecology Chapter 5)

The **uterosacral ligaments**, which provide support to the cervix and upper vagina and interdigitate with fibers from the cardinal ligament near the cervix

93. (B) Brenners tumour

94. (A) Type I

(Ref. Oxford Textbook of Surgery 2nd edition pg. 654)

CHOLEDOCHAL CYST

Cystic dilatation may affect any part of the biliary system; five patterns have been described.

- **Type 1**, a cystic or fusiform dilatation of the common bile duct, is the most common (82 per cent).
- **Type 2** (3 per cent) is a supraduodenal diverticulum of the common bile duct.
- **Type 3** (5 per cent) is a diverticulum of the intraduodenal bile duct, or choledochocele.
- **Type 4** (9 per cent) consists of multiple cysts: type-4A cysts affect both the intrahepatic and extrahepatic bile ducts, while type-4B cysts affect the extrahepatic duct only.
- **Type 5** (1 per cent) describes cysts of the intrahepatic bile ducts. These may be solitary or multiple, and this type includes Caroli disease. They can vary in size from 2 cm in diameter to giant cysts and the wall is composed of fibrous tissue that may be up to 1 cm thick.

95. (A) Socialization

(Ref. PARK PSM 19th ed. 537)

Process by which an individual gradually acquires culture and becomes a member of a social group is called ***socialization***.

96. (A) Increasing demands for resources

97 . (A) Also called prevalence study

(Ref. PARK PSM 19th ed. 67)

Simplest form of observational study based on single exam of population at one point of time – the results of which can be projected on the whole population. It is also known as "prevalence study".

98. (A) Plateau phase

(Ref. Park PSM 18th ed.58; Ref. above for explanation)

Point source" epidemics (single exposure):

- Exposure to disease agent is brief and simultaneous; all cases develop within one incubation period
- Curve has usually one peak.
- Epidemic tends to be explosive, there is clustering of cases within a narrow interval.
- Epidemic curve rises and falls rapidly, with **no secondary waves,**
- **E.g.,** food poisoning, Bhopal gas tragedy (methyl isocyanide).

99. (A) Edmonston

100. (A) Not limited by sutures

101. (C) Birth asphyxia

(Ref. Park psm 19th ed. 450, 421)

Perinatal Mortality Rate:

$$= \frac{\text{Late foetal deaths (28 weeks gestation and more + early neonatal deaths (first week) in one year}}{\text{Live births in the same year}} \times 1000$$

The most common causes of perinatal mortality is birth asphyxia.

102. (C) Intracranial bleed

(Ref. Nelson pediatrics 17th ed. 552 TABLE 86.2-2)

Problems of IUGR (SGA) Infants

- Intrauterine fetal demise
- Perinatal asphyxia
- Meconium aspiration syndrome
- Hypoglycemia
- Hypothermia
- Polycythemia
- Reduced oxygen consumption/hypothermia
- Dysmorphology Syndrome anomalads, chromosomal-genetic disorders, oligohydramnios-induced deformations, TORCH infection
- Other problems include pulmonary hemorrhage and those common to the gestational age–related risks of prematurity if born at less than 37 wk..

103. (D) Histology similar to invasive

(Ref. Shaw's gynecology 14th ed. 369)

104. (A) Pagets disease of bone

(Ref. Bailey and Love 24th ed. 656)

105. (A) No increase in risk of HCC

(Ref. Bailey and Love 24th ed.)

PRIMARY BILIARY CIRRHOSIS (PBC)

- As with PSC, the presentation of patients with PBC is often hidden with general malaise and lethargy prior to the development of clinical jaundice or the finding of abnormal liver function tests.
- The condition is largely confined to females.
- Diagnosis is suggested by the finding of circulating anti-smooth muscle antibodies and, if necessary, is confirmed by liver biopsy.
- It is slowly progressive with deterioration in liver function resulting in lethargy and malaise.
- It may be complicated by the development of portal hypertension and the secondary complications of ascites and variceal bleeding.
- The mainstay of treatment is liver trans-plantation, which should be considered when the patient's general condition starts to deteriorate with inability to lead a normal lifestyle.

106. (A) Chrons disease

(Ref. Bailey and Love 24th ed. 1123)

RADIOLOGY OF CHRON'S DISEASE

- Barium enema will show similar features to those of colonoscopy in the colon.
- The best investigation of the small intestine is small bowel enema.
- This will show up areas of delay and dilatation characterising partial obstruction. The involved areas tend to be narrowed, irregular and sometimes, when a length of terminal ileum is involved, there may be the ***"string sign of Kantor"***.

107. (A) Intusuception

(Ref. Bailey and Love 24th ed. 1068)

- A barium enema may be used to diagnose the presence of an ileo-colic or colocolic form (the claw sign) but would be negative for the ileo-ileal variant in the presence of a competent ileocaecal valve.

108. (A) Excision of the cyst

(Ref: Bailey and Love, short practice of surgery - 23rd edition -986)

- The effective **treatment of hydatid cyst(s)** in the lung is complete excision of the cyst(s) with maximum preservation of the lung parenchyma.

109. (C) Pelvic region

(Ref. Bailey and Love 24th ed. 1012)

PELVIC ABSCESS

- The pelvis is the ***commonest site of an intraperitoneal abscess*** because the vermiform appendix is often pelvic in position and also the Fallopian tubes are frequent sites of infection.

110. (A) Free passage of barium in the terminal ileum

(Ref. Bailey and Love 24th ed. 1068)

- In difficult cases the little finger may be gently inserted into the neck of the intussusception to try and separate adhesions (***Cope's method***).

111. (C) Testes is separate from swelling

(Ref. Short cases of surgery by S das pg. 314; Bailey and Love 24th ed. 1278)

HYDROCELE

Hydroceles are almost invariably translucent and it is possible to 'get above the swelling' on examination of the scrotum.

(surgical Das mentions as a rule testis cannot be felt separately as the fluid of hydrocele surrounds the body of the testis)

112. (A) Fracture neck of femur

113. (C) Avascular necrosis of distal part is there

(Ref. Maheswari, 3rd Ed.)

Common sites of Avascular Necrosis:

1. Head of the femur
2. Proximal pole of scaphoid
3. Body of Talus

114. (A) Inv. of extensor pollices brevis and abductor pollices

(Ref. Maheswari, Pg – 257)

It results from the inflammation of the common sheath of abductor pollicis longus and extensor pollicis brevis tendons.

115. (C) Cubital valgus is most common complication

(Ref. Maheswari, Pg – 85)

- Cubitus varus is the common complication of supracondylar fracture
- Cubitus valgus deformity is the completion of fracture of lateral condyle of humerus.

116. (A) Rendering cervical mucus thick

117. (B) Most common cause of first trimester abortion

The most common cause of first trimester abortion is chromosomal anomalies.

118. (B) 6 to 8 hours

119. (C) laparoscopic sterilisation

(Ref. Lippincott - Novak's Gynecology 13ed. Table 10.10. ; Shaw's gynecology 13th ed. 238)

Least failure rate is seen with Unipolar coagulation of laparoscopic sterilization.

120 (A) Babesia

(Ref. Harrison's Principles of Internal Medicine 16th Edition pg. 1233)

Dividing within RBCs, *B. microti* can form four daughter parasites attached by strands of cytoplasm; these **"tetrad" forms** are seen infrequently in human blood films but are a distinguishing feature

121. (A) Brilliantly translucent

(Ref. Bailey and Love 24th ed. 778)

- As a result of the intercommunication of its many compartments, the swelling is soft and partially compressible, it visibly increases in size when the child coughs or cries, but the characteristic that distinguishes it from all other neck swellings is that it is ***brilliantly translucent***.

122. (C) Lesch Nyhan disease

(Ref. Harrison's Principles of Internal Medicine 16th Edition ed. 601)

123. (B) Hypokalema

Causes of neonatal seizures

- ***Hypoxic-ischemic encephalopathy (HIE)***
- ***Intracranial hemorrhage:***
- ***Metabolic causes:***
- ***Infections:***
- ***Developmental defects***:
- ***Miscellaneous:*** These causes include polycythemia maternal narcotic withdrawal, drug toxicity (e.g. theophylline, doxapram), local anesthetic injection into scalp and phacomatosis (e.g. tuberous sclerosis, incontinentia pigmentii).

124. (A) Biotin

(Ref. Harrison's Principles of Internal Medicine 16th Edition pg. 407)

125. (B) High Apoptotic cell death

(Ref. Robbin's pathology 7th ed. Figure 14-14)

Burkitt lymphoma: numerous pale tingible body macrophages are evident, producing a "starry sky" appearance.

At high power, tumor cells have multiple small nucleoli and high mitotic index. The lack of significant variation in nuclear shape and size lends a monotonous appearance.

126. (A) Causes shock lung

(Ref. Harrison's Principles of Internal Medicine 16th Edition pg. 1608)

Septic shock is caused by the systemic response to a severe infection

127. (A) Nimodipine

128. (A) Chromosome 5

(Ref. Harrison's Principles of Internal Medicine 16th Edition 528)

Polyposis coli is associated with a deletion in the long arm of chromosome 5 (including the *APC* gene) in both neoplastic (somatic mutation) and normal (germline mutation) cells..

129. (A) Membranous Glomerulonephritis

(Ref. Robbin's pathology 7th ed. Table 20-6)

130. (D) Posterior tympanic

131. (B) Primary hyperparathyrodism

(Ref. Harrison's Principles of Internal Medicine 16th Edition pg. 1656)

- The pathophysiology of bone disease due to secondary hyperparathyroidism is related to abnormal mineral metabolism.
  - o (1) Decreased GFR leads to reduced inorganic phosphate (PO4 3) excretion and consequent PO4 3_ retention,

- o (2) retained PO4 3_ has a direct stimulatory effect on PTH synthesis and on cellular mass of the parathyroid glands,
- o (3) retained PO4 3_ also indirectly causes excessive production and secretion of PTH through lowering of ionized Ca2_ and by suppression of calcitriol (1,25-dihydroxycholecalciferol) production, and
- o (4) reduced calcitriol production in CRD results both from decreased synthesis due to reduced kidney mass and from hyperphosphatemia. Low calcitriol levels, in turn, lead to hyperparathyroidism via both direct and indirect mechanisms.

132. (C) Caliculus

(Ref. Grainger & Allison's Diagnostic Radiology, 4th Ed. Pg. 1560)

Partial duplication may be associated with hypertrophy of the septal cortex (hypertrophied column of Bertin). In this developmental abnormality the septal cortex is enlarged and gives the impression of a mass lesion between the upper and middle caliceal groups. It is one type of pseudotumour.

133. (C) Muscles of jaw and larynx

(Ref. Goodman Gillman Pharmacology 9th ed. 565)

- · When an appropriate dose of a competitive blocking agent is injected intravenously in human beings, motor weakness progresses to a total flaccid paralysis.

134. (A) Amenorrhoea

(Ref. Lippincott - Novak's Gynecology 13ed. Chapter 22)

135. (A) Vesico uterine fistula

136. (C) Sertoli cells are important..

(Ref. Ganong Physiology 21st ed. Chapter 23; Fig. 23-22)

In response to LH, some of the testosterone secreted from the Leydig cells bathes the seminiferous epithelium and provides the high local concentration of androgen to the Sertoli cells that is necessary for normal spermatogenesis.

137. (B) IB

138. (A) Node draining colon

(Ref. Schakelford textbook of surgery Fig. 1-12)

- · The lymphatic drainage of the colon and rectum is illustrated, showing that the lymph nodes are distributed around the arterial supply to the large intestine.
- · Four tiers of nodes are recognized:
- o *Paracolic,*
- o *Epicolic,*
- o *Intermediate, and*
- o *Principal lymph nodes.*

139. (C) 5 years

(Ref. Nelson - Textbook of Pediatrics 17th ed. 34; and . OP Ghai Paediatrics 6th ed. 48)

140. (A) Infant mortality rate

141. (A) Lower GI bleeding

(Ref. Bailey and Love 24th ed. 1159)

MECKEL'S DIVERTICULUM

- · In order of frequency, these symptoms are as follows.
- o Severe haemorrhage, caused by peptic ulceration. The blood is passed per rectum, and is maroon in colour. Although the patient may vomit, the vomit does not contain blood. There is rarely any pain and sometimes the bleeding precedes perforation. An operation is required for serious progressive gastrointestinal bleeding. When no lesion in the stomach or duodenum can be found the terminal 150 cm of ileum should be carefully inspected.

Intestinal obstruction.

142. (B) Klebsiella

143. (A) Thiamine

*(Ref. Pg. Harrison's Principles of Internal Medicine 16th Edition pg. 404, **TABLE 61-1**)*

144. (A) Toxoplasmosis

(Ref. Nelson Textbook of Pediatrics 17th edition pg. 569)

145. (B) Phenyl ketonuria

(Ref. Nelson Textbook of Pediatrics 17th edition ed. 384)

- · *Amniocentesis,* the transabdominal withdrawal of amniotic fluid during pregnancy for diagnostic purposes, is frequently performed to determine the timing of the delivery of fetuses with erythroblastosis fetalis or the need for fetal transfusion.
- · The amniotic fluid may be directly analyzed for amino acids, enzymes, hormones, and abnormal metabolic products, and amniotic fluid cells may be cultivated to permit detailed cytologic analysis for prenatal detection of chromosomal abnormalities and DNA-gene or enzymatic analysis for the detection of inborn metabolic errors.
- · Analysis of amniotic fluid may also help in identifying neural tube defects (elevation of alpha fetoprotein), adrenogenital syndrome (elevation of 17-ketosteroids and pregnanetriol), and thyroid dysfunction.

146. (C) Valproate

(Ref. Nelson Textbook of Pediatrics 17th edition 515)

147. (C) Congenital erythropoietic prophyria

(Ref. Harper 27th Ed, Pg – 285)

In general, the porphyrias are inherited in the autosomal dominant manner, with the exception of congenital erythropoieic prophyria, which is inherited in recessive mode.

148. (A) Decomposition

149. (B) Increase parasympathetic discharge to SA node

(Ref. Harrison's Principles of Internal Medicine 16th Edition pg. 1347)

TREATMENT OF PSVT

- · In patients without hypotension, vagal maneuvers, particularly carotid sinus massage, can terminate the arrhythmia in 80% of cases.
- · If these maneuvers are unsuccessful, adenosine (12 mg intravenously) is the agent of choice.
- · Beta blockers may also be used to slow or terminate the tachycardia but are agents of second choice.
- · Digitalis glycosides have a slower onset of action and should *not* be used for acute therapy.
- · When these drugs fail to terminate the tachycardia, or when the tachycardia is recurrent, atrial or ventricular pacing via a temporary pacemaker inserted pervenously may be used to terminate the arrhythmia. However, if severe ischemia and/or hypotension is caused by the tachycardia, (DC) cardioversion should be considered.

150. (A) Hyaline cast

151. (A) 30 to 300mg/d

152. (A) Lateral scc

(Ref. Bhargava 5th Ed, 36; Dhingra 3rd Ed. 55)

CALORIE TEST (HALLPIKE TEST)

- To test vestibular function by stimulating the Labyrinth by water of 30°C (cold) and 44°C (hot).
- Position of patient: Head raised to 30° from horizontal in supine position to bring horizontal semicircular canal in vertical position.
- Inference : Nystagmus produced **(COWS).**

Water	Nystagmus
Cold (30°C)	Opposite Side
Warm (44°C)	Same Side

153. (B) Zonasimide

154. (B) Cirrhosis

155. (A) Bronchial asthma and wheeze

156. (A) JRA

(Ref. Parson's 20th ed. Pg. 201-202)

After many years of chronic inflammation of the anterior chamber (chronic uveitis and keratitis) with shrinkage of the eyeball or in patients with **juvenile polyarthritis**, calcific deposits occur in Bowman's layer, causing a transverse zone of opacification in the region of the palpebral fissure.

157. (A) Alkaline phosphatase is elevated

(Ref. Robbins and Cotran pathologic basis of disease 7th edition 887-888; table 18-4)

DUBIN-JOHNSON SYNDROME

- It results from a hereditary defect in hepatocellular excretion of bilirubin glucuronides across the canalicular membrane.
- The defect is due to absence of the canalicular protein, the multidrug resistance protein 2 (MRP2; located on chromosome 10q24), that is responsible for transport of bilirubin glucuronides and related organic anions into bile.
- The liver is darkly pigmented owing to coarse pigmented granules within the cytoplasm of hepatocytes.
- Electron microscopy reveals that the pigment is located in lysosomes, and it appears to be composed of polymers of epinephrine metabolites, not bilirubin pigment.
- The liver is otherwise normal.
- Apart from chronic or recurrent jaundice of fluctuating intensity, most patients are asymptomatic and have a normal life expectancy.

158. (B) Pulmonary stenosis

(Ref. Harrison's Principles of Internal Medicine 16th Edition pg. 1310)

The so called *systolic ejection murmurs*, which are often crescendo-decrescendo in shape, and occur when blood is ejected across the aortic or pulmonic outflow tracts.

159. (A) Type I

(Ref. Nelson Textbook of Paediatrics 17th ed. 470; Harper's Biochemistry 26th ed. Pg. 152)

GLYCOGEN STORAGE DISEASES.

Glycogenosis	Name	Cause of Disorder	Clinical Presentation	Characteristics
Type I	Von Gierke's disease	Deficiency of glucose-6-phosphatase	Growth retardation, hepatomegaly, hypoglycemia; elevated blood lactate, cholesterol, triglyceride,	Liver cells and renal tubule cells loaded with glycogen. Hypoglycemia, lacticacide-mia, ketosis, hyperlipemia. and uric acid levels

160. (C) High protein diet

161. (D) Chloasma

(Ref. Oxford Textbook of Medicine 4th edition Chapter 13.13)

- **Pigmentary changes and pigmented lesions**

  There is darkening of the nipples, genitalia, and linea alba. The unsightly and sometimes psychologically distressing facial pigmentation of melasma (chloasma) affects many women, is worse with sunlight, and can be reduced by the use of high protection factor (SPF 25) UVB and UVA sun screens. Pigmented naevi can increase in number, size, and pigmentation. Melanoma may occur and is associated with a poor prognosis in pregnant women. Any rapidly changing, irregularly shaped, or irregularly pigmented mole should be biopsied to exclude a dysplastic naevus or melanoma.

162. (D) Donovanosis

163. (D) Type 6

164. (A) Caudal regression syndrome

(Ref. Textbook of obstetrics D C Dutta 6th ed. 303, 304)

Sacral agenesis may be expected in 1% of offspring of diabetic mothers. In 16% of cases of caudal regression syndrome, the mother is diabetic; rarely, the father is diabetic instead. The syndrome appears sporadically but is 100 times more common in one sib of twin births.

165. (B) VLDL

166. (A) Midazolam

Midazolam is parenterally shorter acting drug.

167. (C) LV HYPERTROPHY with displaced apex

(Ref. Harrison's Principles of Internal Medicine 16th Edition 1398)

- In patients with AS, Operation should, if possible, be carried out before frank LV failure develops; at this late stage, the aortic valve pressure gradient declines as the stroke volume and ejection fraction decline.

168. (A) Poly A

(Ref. Harper's Illustrated Biochemistry 26th edition pg. 309, 355, 365)

- The protein-synthesizing machinery begins translating the mRNA into proteins beginning downstream of the 5' or capped terminal.
- The other end of most mRNA molecules, the 3'-hydroxyl terminal, has an attached polymer of adenylate residues 20–250 nucleotides in length. The specific function of the **poly(A) "tail"** at the 3'-hydroxyl terminal of mRNAs is not fully understood, but it seems that it maintains the intracellular stability of the specific mRNA by preventing the attack of 3'-exonucleases.

169. (A) Alveolar rhabdomyosarcoma

(Ref. Robbin's pathology-7th edn-1322)

170. (D) All

(Ref. Harrison's Principles of Internal Medicine 16th Edition)

171. (D) Small power 10 to 18 employees

172. (B) Proximal tube defect

(Ref. Harrison's Principles of Internal Medicine 16th Edition pg. 656)

173. (D) Vault prolapse

(Ref. Novak's Gynaecology 13ed.Chapter 90)

- ***Colpopexy*** A different procedure is required for younger women and for women who wish to retain sexual function. For these women, the condition can be managed transvaginally or transabdominally. With the transvaginal approach, vaginal eversion is corrected by suturing one or both sides of the vaginal apex (usually the right side) to the sacrospinous ligament with one or two sutures—a ***transvaginal sacrospinous colpopexy***.

174. (D) First body of twin pregnancy

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. 380)

Contraindications to external cephalic version:

a) Preeclampsia (severe)
b) Post caesarean section
c) Placenta previa or history of bleeding in early months
d) Pelvic contraction
e) Previously known congenital malformation of uterus
f) Specially valuable baby.
g) Multiple Pregnancies
h) Fetal causes (hydrocehalic after coming head, hyper-extended head, and dead fetus).

175. (A) Prolonged pregnancy

(Ref. Textbook of obstetrics D.C. Dutta 6th ed. 628)

Causes of DIC during pregnancy:

- Abruptio placentae
- Amniotic fluid embolism
- Chorioamnionitis
- Dextran infusion
- Eclampsia and pre-eclampsia (severe)
- Hydatidiform mole
- HELLP syndrome
- IUD
- Instillation of intra-amniotic hypertonic saline
- LSCS
- Pyelonephritis in pregnancy
- Shock
- Septic abortion

176. (A) Mentovertical

177. (A) Cardiac tamponade

(Ref. Harrison's medicine 16th Ed.1416)

So, tachycardia, hypotension, and distended IJV in a case of blunt trauma abdomen, is s/o cardiac tamponade.

Cardiac tamponade

Features

- raised JVP, with an absent Y descent - this is due to the limited right

  ventricular filling
- tachycardia
- hypotension
- muffled heart sounds
- pulsus paradoxus
- Kussmaul's sign (much debate about this)
- ECG: electrical alternans

178. (A) Sucralfate

(Ref. Harrison's Principles of Internal Medicine 16th Edition 1754)

179. (B) Magnesium

(Ref. Harrison's Principles of Internal Medicine 16th Edition ed. 1664)

180. (A) Efficacy in comparision to phenol

181. (B) Hypercalcemia

(Ref. Harrison's Principles of Internal Medicine 16th Edition TABLE 35-3)

182. (B) Non progressive deafness

(Ref. Bhargava ENT 6th ed. 76; PL Dhingra 3rd Ed.114)

183. (C) Infectious mononucleosis

(Ref. Harrison's Principles of Internal Medicine 16th Edition 1047; 1834)

Most cases of Infectious Mononucleosis are self-limited. Deaths are very rare and most often are due to central nervous system complications, splenic rupture, upper airway obstruction, or bacterial superinfection.

184. (A) EBV

- Hairy Leukoplakia is caused by the EB virus
- Hairy Leukoplakia is commonly seen as a white lesion on the lateral aspect of tongue.

185. (A) 1 hour

186. (A) HUS

187. (D) Polyester

188. (B) Axillary lymph node status

(Ref. Bailey and Love 24th ed. 820)

189. (A) Retinal detachment

(Ref. Lange Ophathalmology pg. 432)

MYOPIA

- The **risk of retinal detachment** is increased in myopia. However, it *does not* increase in proportion to the severity of the myopia. Because of the increased risk of retinal detachment, patients with myopia should be examined particularly thoroughly for prodromal signs of retinal detachment, such as equatorial degeneration or retinal tears. Therefore, examination of the fundus with the pupil dilated is indicated both when the first pair of eyeglasses is prescribed and at regular intervals thereafter.

189. (C) Central retinal artery occlusion

190. (C) Fallopian tube

191. (D) Strawberry hemangioma

192. (A) Digital screening along with PSA is additive

(Ref. Harrison's principles of internal medicine 17th ed. Table 78-3)

- The most common prostate cancer screening modalities are DRE and serum prostate-specific antigen (PSA) assay.

193. (A) Cholera

(Ref. Harrison's principles of internal medicine - 16th edition – 264, table 42-3, table 42-4)

194. (A) Myxedema

(Ref. Harrison's principles of internal medicine 17th ed. Figure 340-5)

- Gynecomastia refers to enlargement of the male breast.
- It is caused by excess estrogen action and is usually the result of an increased estrogen/androgen ratio.
- True gynecomastia is associated with glandular breast tissue that is >4 cm in diameter and often tender. Glandular tissue enlargement should be distinguished from excess adipose tissue: glandular tissue is firmer and contains fibrous-like cords.

195. (A) Twin Twin transfusion syndrome

(Ref. Danforth obstetrics pg. 556)

196. (A) Lymphedema

(Ref. Bailey and Love 24th ed. 840)

- More often lymphedema is a result of treatment, either surgical excision of draining lymph nodes and/or radiotherapy.
- Lymphedema following treatment for breast carcinoma is the commonest example, but fortunately this is decreasing in incidence as surgery for the condition has become more conservative.
- Lymphedema may occur after radical mastectomy (up to 60 per cent), modified radical mastectomy (up to 20 per cent), local excision with either axillary node clearance or radiotherapy (less than 5 per cent), and local excision with axillary node clearance and radiotherapy (up to 40 per cent).

197. (B) Decreasing vitreous volume

198. (B) Hypovolemic shock

(Ref. Bailey and Love 24th ed. 267)

Burns shock occurs as a result of rapid plasma loss from the damaged tissues, causing hypovolaemia. When 25 per cent or more of the body surface area is burnt, a generalised capillary leakage may result in gross hypovolaemia in the first 24 hours. Endotoxaemia due to infection makes matters worse and large volumes of colloidal and crystalloid fluids are required for resuscitation.

199. (C) Massaging

(Ref. Basak's ophthalmology 2nd ed. 281)

The primary treatment of uncomplicated nasolacrimal obstruction is a regimen of nasolacrimal massage, usually 2–3 times a day, accompanied by cleansing of the lids with warm water. Topical antibiotics are used for significant mucopurulent drainage. Most cases of *congenital nasolacrimal duct obstruction* resolve spontaneously, 96% before 1 yr of age.

200. (C) Dracunculosis

*APPG 2008 Q&A Compiled by **Dr Vijaya Bhaskar Mallela** (MD)*
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PATHOLOGY HIGH YIELD TOPICS

INFECTIVE ENDOCARDITIS

Infective endocarditis is a condition in which there is proliferation of micro organisms on the endothelium of heart.
Bacterial endocarditis is clinically divided into 2 subtypes.

- Acute bacterial endocarditis which is commonly caused by virulent strains of staphylococcus
- Subacute bacterial endocarditis, the commonest organisms causing this include the streptococci with low virulence, predominanthy streptococcus viridans.

Most common organism causing endocarditis in IV drug abusers is staphylococcus and tricuspid valve is commonly involved. Apart from bacteria, some rickettsia, such as coxiella burnetti and fungi such as candida and histoplasma can cause infective endocarditis.

Development of uninfected platelet, fibrin thrombus is called as nonbacterial thrombotic endocarditis or "Marantic" endocarditis. It is seen in malignancies which produce hypercoagulable states especially mucinous adenocarcinoma of colon, pancreas etc.

Endocarditis seen in SLE is known as Libmansack's endocarditis.

Morphological changes				
	Infective	**Rheumatic**	**Non-bacterial thrombotic**	**Libman Sack's**
Vegitations	Large, bulky, irregular. May erode underlying myocardium to produce ring abscess	Small, warty and firm	Small, friable	Small, flat, verrucous and irregular
Valves involved	Mitral, tricuspid (Atrial surface)	Mitral, sometimes aortic	Mitral	All valves
Site on valve	On the surface of cusps	Along the lines of closure	Along the lines of closure	Both surfaces
Microscopy	• Outer cap of eosinophilic material • Middle basophilic zone • Deep zone consisting of non-specific reaction inflammatory reaction	Fibrinoid necrosis with Aschoff's bodies	Degenerated valvular tissue without inflammatory reaction	Fibrinoid necrosis with haematoxylin bodies of gross.

Duke's Criteria for diagnosis of endocarditis

Major Criteria:

1. Positive blood culture
2. Positive echocardiography (vegetations more than 2 mm are picked up)
3. New valvular regurgitant murmurs.

Minor criteria:

1. History of heart valve lesion or IV drug abuse
2. Fever more than 38°C
3. Embolic lesions (Each 1)
   - Cerebral infarction and stroke
   - Renal infarct leading to hematuria
   - Splenic infarct – Left flank pain
   - Mesenteric infarct leading to GI hemorrhage
   - Peripheral vessel emboli leading to loss of pulse and gangrene
4. Immunological response due to vasculitis (Each 1)
   - Arthralgia
   - Myalgia
   - Splincter hemorrhages under the nail
   - Petichae over skin, conjunctiva and retina (In retina, they are called as Roth's spots)
   - Osler's nodes – Tender erythematous nodules over the pulp of finger tips
   - Janeway lesions – Non tender erythematous patches on palm and soles
   - Clubbing
   - Splenomegaly
   - Focal necrotizing glomerulonephritis.

For diagnosis of endocarditis following criteria should be fulfilled
– 2 Major
or – 1 major + 2 minor
or - 5 minor

IMMUNE DEPOSITS IN RENAL DISEASE

Immunofluorescence tenchique and electron microscopy are used for detection of immune deposits in case of renal biopsy.

Immunofluorescence:

- In this technique, as soon as renal biopsy core is obtained, it is snap frozen and cut into 2-4 µm thick sections. Later these sections are stained with antisera known to be monospecific for IgG, IgM, IgA, K & λ light chains, C3, C1q and albumin. Then these stained sections are seen under fluorescent microscope. If deposition is granular it indicates immune complex disease and if deposition is intensely linear it indicates deposition of classic antiglomerular basement membrane antibodies.

Type of deposition	Conditions
1. Linear deposits along capillary wall	- Antiglomerular basement membrane disease (IgG, C3) (Good Pasteur syndrome) - Diabetic nephropathy (IgG, Albumin) - Dense deposit disease (C3)
2. Granular mesangial deposits	- IgA nephropathy (IgA) - Lupus nephritis (Full house = All type of immunoglobulins)
3. Granular deposits along capillary wall	- Membranous glomerulonephritis - Membranoproliferative glomerulonephritis - Lupus nephritis - Post streptococcal glomerulonephritis (IgG & C3)
4. Diffuse "Smudgy" mesangial and capillary wall deposits	- Primary amyloidosis (λ chain) - Fibrillary glomerulonephritis (IgG)

Electron microscopy:

For electron microscopy biopsy is fixed in gluteraldehyde or osmium tetroxide, embedded in epoxy resins and stained with toluidine blue

Site of deposits	Disease
1. Subepithelial	- Membranous GN - Lupus nephritis - Post infectious GN (Humps)
2. Intramembranous	- Dense deposit disease (MPGN II) - GN related to endocarditis
3. Subendothelial	- Membrano proliferative GNI - Lupus nephritis
4. Mesangial	- IgA nephropathy - Henoch Schonlein purpura - C1q nephropathy
5. Combined subendothelial, subepithelial and mesangial	- Lupus nephritis - Membrano proliferative glomerulonephritis

Other findings that can be seen in EM

Findings	Disease
1. Diffuse thinning of GBM	- Thin basement membrane disease
2. Diffuse thickening of GBM	- Diabetes, hypertension
3. Diffuse lamellation/ splitting of GBM	- Alport's syndrome
4. Subendothelial fluffy material	- All forms of thrombotic micro angiopathies
5. Fine granular deposits	- Monoclonal immunoglobulin deposition disease
6. Fibrillary deposits	- Amyloidosis, fibrillary GN, diabetic glomeruloscelosis, collagen type III glomerulopathy
7. Loss of foot processes	Minimal change disease

CHRONIC MYELOGENOUS LEUKEMIA (CML)

CML is a type of chronic myeloproliferative disorders, which is consistently associated with Philadelphia chromosome and/or the BCR/ABL fusion gene. According to recent WHO classification, other disorders which are included in the category of chronic myeloproliferative disorders (CMPD) are chronic neutrophilic leukaemia, chronic eosinophilic leukemia, polycythemia vera, chronic idiopathic myelofibrosis and essential thrombocythemia CML has numerous firsts to its credit. It was the first disorder for which leukaemia term was used. It was the first malignancy in which a recurrent chromosomal abnormality was noted. It is the first disorder in which a therapeutic agent has been designed to target the molecular defect.

CML is the most common form of CMPD and it comprises of about 15-20% of all leukemias. It is usually seen in 5th to 6th decade with a slight male predominance.

Formation of Philadelphia chromosome (der 22q^{-}) involves movement of ABL from the long arm of chromosome 9 to BCR on chromosome 9 (t (9:22)). There is also a reciprocal movement of a piece of chromosome 22 to chromosome 9. This translocation results in formation of a fusion gene, BCR/ABL, which codes for a specific protein called p^{210}. This p^{210} protein has abnormally high tyrosine kinase activity, because of which there is excessive proliferation of pleuripotent bone marrow stem cells.

Clinical course of CML has 2 phases. In chronic phase, patients present with anemia, hepatosplenomegaly, bleeding tendency, bone pains, etc. In accelerated phase/blast crisis, there is transformation of CML into AML or ALL. It is usually seen 30-40 months after diagnosis of CML.

Peripheral smear reveals marked leucocytosis (> 100 x 10^9/L) with excess of granulocytic precursors. Full range from myeloblast to mature neutrophils is seen with peaks in myelocytes. Basophilia indicates an impending blast crisis. Blast count becomes more than 20% when patients go into blast crisis. Bone marrow is hypercellular with left shifted myelopoiesis. In CML leukocyte alkaline phosphatase levels are decreased which help in differentiating it from leukemoid reaction.

Prognosis in CML depends on following factors (Sokal index).

- Patient's age
- Spleen size
- Number of blasts and basophils in marrow
- Amount of marrow fibrosis

Imatinib mesylate (Gleevec) is the drug of choice in treatment of CML. It acts by inhibiting tyrosine kinase produced by bcr/abl oncogene.

Juvenile CML has greater lymph node involvement & less splenomegaly. They do not have Philadelphia chromosome and carry a very poor prognosis. Bone marrow transplantation is the treatment of choice in these cases.

CARCINOGENIC AGENTS

3 important carcinogenic agents include – chemicals, radiation and viruses.

Chemical carcinogenesis:

Sir Percival Pott, for the first time demonstrated high incidence of scrotal cancer in Chimney Sweepers.

Chemical carcinogens are basically divided into 2 categories– Initiators and promoters. Initiators are highly reactive electrophiles (electorn deficient), that react with nucleophilic (electron rich) sites in the cell. They are further divided into directly acting and indirectly acting initiators. Indirectly acting carcinogens are converted into ultimate carcinogens by cyt. p450. Only some forms of cyt. P450 are able to do this conversion, such as CYP1 A1 type. So smokers with this form of Cyt. P450 have a high incidence of lung cancer. Mutational capacity of these chemicals is tested by "Ame's test" on Salmonella typhimurium. Promoters induce proliferation and clonal expansion of initiated cell.

Initiators

- Directly acting – Alkylating agents, Acylating agents
- Indirectly acting – Polycyclic aromatic hydrocarbons, aromatic amines

Promoters – Phorbol esters, phenols, hormones.

Radiation carcinogenesis:

Ultra violet rays can produce squamous cell carcinoma, basal cell carcinoma and malignant melanoma of skin . B type of UV rays (wave length 200-280 nm) commonly produce cancer, as C type is normally filtered by ozone. Patients with xeroderma pigmentosa, who have a defect in nuclear excision repair pathway, are more prone to develop UV ray induced cancers.

Ionizing raditions like x-rays, γ-rays, α and β particles also produce malignancies. Cancer developing in order of frequency include

- Leukemias except CLL
- Carcinoma thyroid
- Carcinoma of breast, lung and salivary glands.

Microbial carcinogenesis:

Genomes of oncogenic DNA viruses integrate into and form stable association with host cell genome. Viral genes that are transcribed early in the viral life cycle (early genes) are important in transformation of normal cells into malignant ones.

Carnicogenic viruses	Tumours produced by them
DNA Viruses	
HPV – 1, 2, 4, 7	- Skin warts
HPV – 16, 18, 31, 33	- Carcinoma cervix
HPV – 6, 11	- Genital warts
Epstein-Barr Virus	- Burkitt's lymphoma, B cell lymphoma, Hodgkin's lymphoma
Hepatitis B virus	Nasopharyngeal carcinoma
RNA Virus	
HTLV – 1	- Hepatocellular carcinoma - T cell leukaemia / lymphoma

Helicobacter pylori is the only bacteria which can induce malignancies. Persons with chronic H. Pylori infection are prone to develop gastric carcinoma and gastric lymphoma.

EMPHYSEMA

Emphysema is a pathological process of permanent enlargement of air spaces distal to **terminal bronchioles** accompanied by destruction of their walls and without obvious fibrosis. Enlargement of air spaces not accompanied by destruction is called as overinflation. It belongs to a category of respiratory diseases called chronic obstructive pulmonary diseases, which are charectorized by FEV_1 of less than 80%. Chronic bronchitis and few cases of chronic asthma are the other diseases included in this category.

Pathogenesis of emphysema is explained by protease-antiprotease theory. Protease levels are raised due to cigarette smoking and environmental air pollutants. α1 antitrypsin deficiency (< 11 µmol/lit, Normal 20-48 µmol/lit) also causes emphysema. Normally PiMM phenotype is present. In case of deficiency PiZZ phenotype of α1 antitrypsin is seen. This deficiency is inherited in autosomal recessive pattern. PiZZ from α1 antitrypsin is abnormally folded and instead of being secreted, it is retained within endoplasmic reticulum. Liver is also affected in the form of neonatal hepatitis and cirrhosis in later stages.

Depending on the portion of acinus involved, emphysema is classified into 3 types. Centriacinar emphysema is the most common of these, constituting more than 95% of cases. In this central portions of acinus formed by respiratory bronchioles are affected. Centriacinar type is commonly seen in smokers. Panacinar type is usually associated with α1 antitrypsin deficiency. In distal acinar / paraseptal emphysema distal part of acinus is predominantly involved. It occurs adjacent to areas of fibrosis, scarring and atelectasis.

Microscopy of emphysematous lungs reveals abnormally enlarged alveoli, separated by thin septa. Pores of Kohn are markedly enlarged.

Following are some special forms of emphysema.

- Compensatory emphysema – It is a non-destructive dilation of alveoli, secondary to loss of lung substance elsewhere.
- Senile emphysema – It refers to an age related alteration of internal geometry of lung characterized by larger alveolar ducts and smaller alveoli. There is no destruction of lung substance.
- Obstructive emphysema – Collection of air distal to obstruction is either due to ball valve action of obstructive agent or due to ventilation through collaterals that bring air from behind the obstruction. These collaterals include Pores of Kohn (interalveolar connections) and Canals of Lambert (Bronchio alveolar connections).
- Bullous emphysema – It is any emphysema that produces a large subpleural bleb measuring more than 1 cm in diameter.
- Interstitial emphysema – It is entry of air into connective tissue stroma of mediastinum and subcutaneous tissue.

HASHIMOTO'S THYROIDITIS

It is also called struma lymphomatosa, lymphadenoid goitre and autoimmune thyroiditis. It was first reported by Japanese Ophthalmologist Hashimoto in year 1912. It is a type of autoimmune disease characterised by development of auto antibodies against –

- Thyroid cell microsomes (peroxidase) – 95% cases
- Thyroid cell nuclear component
- Thyroglobulin
- Nonthyroglobulin colloid

High degree of association is seen with HLA - DR5 and DR3. Several susceptible loci have been identified on chromosomes 6p and 12q. Drugs such as amiodarone, α INF, IL-2 and G-CSF also can cause Hashimoto's thyroiditis. Sometimes it is associated with lymphocytic adrenalitis (also known as Schmidt's syndrome) and lymphocytic interstitial pneumonitis.

Grossly affected thyroid is symmetrically enlarged with semifirm consistency. Cut section is pale, gray tan, firm and nodular.

Microscopy reveals an extensive lymphoplasmacytic infiltration with occasional germinal centre formation. Thyroid follicles, at places, are lined by Hurthle cells. (Also called as Askanazy cells / oncocytes). They typically have granular eosinophilic cytoplasm. Disruption of epithelial cells is noted along with regeneration at places. Fibrosis is seen in some cases.

Patients present with goitre, associated with hypothyroidism. FNAC, thyroid function tests and autoantibody titres are done to confirm the diagnosis. These patients have a high risk of developing of tumors such as papillary carcinoma, malignant lymphoma and Hurthle cell neoplasms.

Hashimoto's encephalopathy is another complication, which is characterized by myoclonus and slow activity on ECG. This condition slowly progresses to confusion, coma and death. It has to be treated with steroids.

Treatment of Hashimoto's thyroiditis includes thyroxine supplements for hypothyroidism and subtotal thyroidectomy for pressure symptoms.

A microscopic variant – Fibrous Hashimoto's thyroidits is characterized by severe follicular atrophy along with dense "Keloid" like fibrosis. But unlike in Riedel's thyroiditis this fibrosis does not extend beyond the capsule of thyroid.

Other autoimmune thyroid diseases are

- Non specific lymphocytic thyroiditis
- Riedel's thyroiditis
- Grave's disease

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SKIN HIGH YIELD TOPICS

TUBEROUS SCLEROSIS

- TSC is an autosomal dominant disease arising from a genetically programmed hyperplasia of ectodermal and mesodermal cells and manifested by a variety of Lesions in the Skin, CNS, heart, kidney and other organs.
- TSC = EPILOIA
  - Epilepsy
  - Low intelligence
  - Adenoma Sebracum
- The characteristic triad is one of adenoma sebacum, epilepsy and mental retardation
- The foci of tuberous sclerosis gene have been localized to 9q and 16q.

Clinical features:

a) **Adenoma Sebaceum**: reddish brown, smooth dome shaped, papules 1-4 mm in size occur in a symmetrical distribution over the nose, nasolabial folds and cheeks.

b) **Ash leaf spots** are hypopigmented dull white macules which are ovate or lance shape i.e., rounded at one end pointed at the opposite end. Ash leaf spots appear to be earliest cutaneous marker of tuberous sclerosis and are present in about 85% of patients with TSC.

c) **Shagreen patch** is a localized leathery, cobble stoned, yellow brown plaque resembling pig skin that is most often found in the lumbosacral area. These are connective tissue naevi.

d) Periungual papules or nodules are Koenen's tumours (+) in TSC patients.

e) Dental enamel pitting, Focal poliosis

f) Neurological findings: Seizures, mental retardation (Hamartomas) children with onset of seizures under the age of 2 years have an 80-100% chance of mental retardation.

g) Ophthalmic: Retinal (or) optic nerve hamartomas.

h) Genito urinary System: Renal hamartomas Angiomyo lipomas are the most common renal hamartomas.

i) CVS: Multiple rhabdomyomas

j) Pulmonary: Localized cystic disease of lung parenchyma and spontaneous pneumothorax.

k) Almost half of all individuals with TSC develop bone anomalies – localized areas of sclerosis are most often seen in the skull, spine and pelvis.

IMPORTANT SIGNS IN DERMATOLOGY

- Darrier's sign: Urticaria pigmentosa (Mastocytosis)
- Auspitz sign: Psoriasis
- Nikolsky sign: A canthoytic disorders
  Eg: Pemphigus, SSSS, TEN.
- Carpet tack sign: DLE
- Button hole sign: Neurofibromatosis
- Apple jelly nodules: Lupus vulgaris
- Bulla spread sign: Pemphigus
- Gottron's sign: Dermatomyositis
- Oil drop sign: Psoriasis
- Shawl sign: Dermatomyositus
- Pseudo sign: Smooth muscle hamartomas
- Lesser Trelaut sign: E. Seborrheic keratosis
- Dennie morgan fold: Atopic dermatitis
- Hebra's triangle: Scabies
- Groove's sign: LGV
- CLUE Cells: Bacterial vaginosis
- Target Lesions: EMF
- Buschke-Ollendorf sign: Papular syphilis
- String of pearls: IgA dermatoses
- Pathergy test: Behcet disease, PG
- Kobeners phenomenon: LP, psoriasis, vitilgo, warts, Darriens, Xanthomas Reticulo histocytes
- Dimple Sign: Dermatofibroma

LICHEN PLANUS

- Lichen planus is an acute (or) chronic inflammatory dermatosis involving skin and/or mucous membranes, characterized by flat topped, pink to violaceous shiny pruritic polygonal papules on the skin.
- Age of onset 30 to 60 years (F > M)
- LP is a rare disorder in children
- A fine network of white lines present in many papules known as Wickham's striae.
- The papules of LP tend to involve the flexural areas preferentially, the common sites being the wrist, lumbar region, and around ankles
- Koebner phenomenon (isomorphic phenomenon) is a fairy common occurrence in LP and may be provoked by friction, UV light, burns or laceration.

Variants of Lp:

a) Hypertrophic LP
b) Follicular LP
c) Vesicular LP / Bullous LP
d) LP actinicus
e) Ulcerative LP
f) Linear LP
g) Lichen planus pigmentosus
h) Atrophic, anular LP
i) Oral LP
j) Guttate LP

- LP is associated with HCV infection, vitiligo thymoma, AA, Myasthenia gravis, morphea, Lichen sclerosus.

Drugs associated with LP:

Common inducers:

Gold Salts
Beta Blockers
Antimalarials
Thiazide diuretics
Furosemide
Spironolactone
Penicillamine

- Histopathologically there is liquefaction degeneration of the basal layer and degenerate keratinocytes known as civvate bodies (or) colloid bodies are found at the dermal-epidermal junction.

Management:

Glucocorticoids
Cyclosporine
Immunomodutators – Tacrolimus
Systemic retinoids
Photochemotherapy
Supportive therapy.

MECHANISM OF ACTION OF SOME DRUGS

1. **Ivermectin:**
   - It acts by intensifying GABA mediated transmission of signals in peripheral nerves
   - Ivermectin is the drug of choice in strongyloidiasis and onchocerciasis
   - It is now used in the treatment of scabies (200 µg/kgbodywt)
2. **Permethrin:** It causes neurological paralysis in insects by delaying depolarization.
3. **Tacrolimus:** (FK 506)
   - Tacrolimus is a calcineurin inhibitor (Specific T cell inhibitor)
   - Tacrolimus thus inhibits transcription and prevents IL-2, IL-4, IL-5 production, down regulates IL-8 receptors on the keratinocytes.
4. **Imiquimod:** It is an inducer of IFN-γ responsible for local antiviral, antitumour and immuno regulatory activity.
5. **Mycophenolate Mofetil (MMF):**
   - MMF blocks purine synthesis by inhibiting the enzyme inosine monophosphate dehydrogenase (IMDH).
   - MMF is best suited for individuals in whom other systemic therapies are contraindicated because of HTN, impaired renal function or liver disease.
6. **Griseofulvin:** 'Fungistatic' drug interferes with mitosis to form multinucleated, stunted an curled hyphae
   GRISEOFULVIN = Curling factor
7. **Fluconazole:**
   - Broad spectrum triazole antifungal
   - 'Fungicidal drug inhibits fungal ergosterol synthesis by blocking fungal enzyme lanosterol 14-demethylase.
8. **Itraconazole:** Inhibits fungal ergosterol synthesis like other azoles.
9. **Terbinafine:** Inhibits squalene epoxidase leading to accumulation of intracellular squalene and deficient ergosterol synthesis.

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GYNAECOLOGY TEST

Questions

1. Bartholin's duct open into (JIPMER 92)
a Labia majora
b Labia minora
c Lower vagin
d Groove between labia minora and hymen

2. Vagina is supplied by all of the following arteries except (AP 2000)
a Uterine artery b Internal iliac artery
c Middle rectal artery d External pudendal artery

3. What is the order of puberty (AI 2000)
a Telarchy - pubarchy - menarchy
b Pubarchy-telarchy -menarche
c Pubarchy - menarchy - telarchy
d Adrenarchy - telarchy - pubarchy

4. Earliest menopausal symptoms is (AI 88)
a Hot flushes b Osteoporosis
c Vaginal discharge d Spotting

5. Menopause is defined as cessation of menstruation for (KERALA2000)
a 3 consecutive months
b 6 consecutive months
c 9 consecutive months
d 12 consecutive months
e 15 consecutive months

6. The epithelial lining of endometrium and cervical canal is (AP 2002)
a Columnar epithelium
b Cuboid epithelium
c Squamous epithelium
d Transitional epithelium

7. Vaginal cytology for hormonal change are best taken from (AIIMS 87)
a Posterior wall b Anterior wall
c Lateral wall d Any wall

8. The best time to perform a curettage in a case of abnormal uterine bleeding is (AP 93)
a Proliferative phase b Secretory phase
c Menstrual phase d All of the above

9. Congential adrenal hyperplasia is associated most commonly with deficiency of (KAR 94)
a 21-hydroxylase
b 11-hydroxylase
c 3-beta-ol dehydrogenase
d 17-hydroxylase

10. Patient of 47 XXY karyotype presents with features of hypogonadism, likely diagnosis (AI 2001)
a Turners b Klinefelters
c Edward d Down syndrome

11. A girl presents with primary amenorrhea; grade V thelarche, grade II pubarche; no axillary hair; possible diagnosis (AI2001)
a Testicular feminization
b Mullerian agenesis
c Turners
d Gonadal dysgenesis

12. Precocious puberty, hyperpigmentation of the skin and bony deformity are characteristically seen in (AP 97)
a Frohlich's syndrome
b Alport's syndrome
c McCune Albright's syndrome
d Laurence- Moon- Biedl syndrome

13. Ball's operation is done for (ORISSA2000)
a Ca. Cervix b Ca. Ovary
c Ca. Fallopian tube d Pruritus vulvae

14. Vulval Carcinoma metastasizes to which lymph group (JIPMER 93)
a Para aortic nodes b Superficial Inguinal nodes
c Internal iliac nodes d External iliac nodes

15. The vaginal epithelium is lined by (AP 86)
a Columnar b Psuedostratified columnar
c Stratified squamous d Transitional

16. The Maturation Index (MI) on vaginal cytology is a diagnostic method for evaluating the (UPSC 2000)
a Adequacy of cytotoxic drug therapy
b Gender of an anatomically abnormal child\
c Malignant change at squamocolumnar junction of cervix
d Endocrine status of the patient

17. Vaginal pH in the new born is (TN 93)
a 7 b 6 c 5 d 4

18. Vaginal adenocarcinomas in children is caused by (TN 98, BHU 2002)
a Virus
b Administration of DES to pregnant mothers
c Hormonal changes
d All of the above

19. Clue cells are seen with (MAHE 99)
a Gardnella vaginalis b Candida
c Trichomoniasis d Gonorrhoea

20. Most common mode of spread of tuberculosis of genital tract is (UPSC 83)
a Hematogenous b Direct
c Lymphatic d None of the above

21. Marshall- Marchetti - Krant surgery is done for (AP 96)
a Stress incontinence b Urge incontinence
c Vesico Vaginal fistula d Bladder obstruction

22. 'Kelly's Stitch' operation is done for (CU 2000)
a Stress incontinence
b Urge incontinence
c Over flow incontinence
d Neurogenic bladder

23. The following lesions are frequently due to traumatic vaginal delivery (AIIMS 84)
a Enterocele b Ureterovaginal fistula
c Ureteral ectopia d All of the above

24. In a case of incontinence of urine, dye filled into the urinary bladder does not stain the pad in the vagina, yet the pad is soaked with clear urine. The most likely diagnosis is (UPSC 2000)
a Vesico vaginal fistula
b Ureterovaginal fistula
c Urinary stress incontinence
d Urethrovaginal fistula

25. Normal posterior urethrovesical angle, when bladder is empty is (AP 87)
a 800 b 1000 c 1400 d 1800

26. Asthenospermia means (UPSC 96)
a Failure of the formation of sperms
b No spermatozoa in the semen
c Reduction in the motility of sperms
d Sperm count less than 20 million/ml of semen

27. The effective sperm count normally is (DNB 90)
a 20 million/ml b 30 million/ml
c 40million/ml d 50 million/ml

28. The test for detecting anti sperm antibodies (TN 99)
a Post-coital test b Palm leaf test
c Fern test d Spinn Barkiet test

29. The best time of the menstrual cycle for endometrial biopsy in infertility investigation is (UPSC96)
a First day of menstruation
b One week after the onset of menstruation
c Just near due date of the next menstruation
d On the 15th day of the onset of menstruation

30. Which of the following is not indicative of ovulation (KAR 2003)
a The occurence of menses
b Secretory endometrium
c Progesterone level of above 5-6 ng/ml
d Rise in BBT

31. Post coital test is used to assess (TN 87)
a Cervical factor b Vaginal factor
c Uterine factor d None

32. Which one of the following drugs can reduce the efficacy of low dose oral contraceptive pill (UPSC 96)
a Penicillin b Tetracycline
c Ampicillin d Rifampicin

33. Yuzpe method is a type of (UPSC 2000)
a Post - coital hormonal contraception
b Male contraceptive method
c Postcoital IUCD contraception
d Minilap sterilization

34. Nonoxynol-9 (marketed as 'Today') is a/an (UPSC 96)
a Hormonal contraceptive
b Intrauterine contraceptive
c Barrier contraceptive
d Post-coital contraceptive

35. Billing's method of contraception refers to (UPSC99)
a Monitoring basal body temperature
b Cervical mucus method
c Rhythm method
d Coitus interruptus method

36. Failure rate of tubectomy is minimum in (JIPMER 95)
a Madlener procedure b Parkland procedure
c Pomeroy procedure d Irving procedure

37. Amount of oestrogen in MALA - D is (AMU 95)
a 30 ug b 50 mg c 10 Mg d 80 Mg

38. The Low Dose Progesterone only type of oral contraceptives act by (KAR 99)
a Inhibition of the midcycle surge of luteinizing hormone
b Inhibition of follicle - stimulating hormone secretion
c Preventing ovulation
d Rendering cervical mucus less penetrable by sperm

39. Long acting IUCD's are all except (AIIMS 97)
a Progestasert b Cu T
c Lippes loop d Multiload

40. The essential investigation to be included in follow up of Hydatidiform mole is (DELHI 96)
a Ultrasound abdomen
b Chest X ray
c Serum levels of HCG
d Serum levels of TSH

41. The chromosomal pattern of hydatiform mole is usually (AI 91)
a 46 XX b 46 XY
c 69 XXY d None of the above

42. In which part of Fallopian tube does ectopic pregnancy occur most frequently (KAR 93)
a Ampulla b Isthmus c Fimbria d Cornu

43. The following are features of stein leventhal syndrome except (PGI 88)
a Bilateral polycystic ovary b Amenorrhoea
c Hirsutism d Obesity
e Hypotension

44. Multiple pregnancy is caused by (AP 96)
a Gn RH b Clomiphene citrate
c Danazol d Bromocriptine

45. Most common site of origin of cervical intraepithelial neoplasia (CIN) is (AP 87)
a Erosion cervix
b Cervical glands
c Squamocolumnar junction
d Decubitus ulcer

46. Commonest site of primary carcinoma in a case of Krukenberg ovarian tumour is (AIIMS 84)
a Gall bladder b Stomach
c Breast d Lung

47. Following ovarian tumour is associated with genital abnormality (MAHE 2001)
a Theca cell b Granulosa cell
c Dysgerminoma d Choriocarcinoma

48. Pelvic endometriosis is best diagnosed by (AP 88)
a Laparoscopy b Sonogram
c Curettage d Roentgenogram

49. Which drug used for treating endometriosis is associated with increased hepatic enzyme levels and adverse lipid profiles: (UPSC 2005)
a GnRH analogues
b Low dose oral combined pills
c Antiprogestins
d Danazol

50. The treatment for a case of virilizing adrenal hyperplasia is: (AIPG 2006)
a Estrogens b Antiandrogens
c ACTH d Cortisone

All India Model Paper Answer key (Pg No. 60)

1-3, 2-1, 3-2, 4-4, 5-3, 6-3, 7-1, 8-1, 9-4, 10-1, 11-2, 12-3, 13-3, 14-3, 15-3, 16-4, 17-4, 18-1, 19-2, 20-4, 21-1, 22-2, 23-2, 24-4, 25-1, 26-3, 27-2, 28-1, 29-3, 30-3, 31-4, 32-1, 33-1, 34-1, 35-3, 36-1, 37-1, 38-2, 39-4, 40-2, 41-3, 42-1, 43-4, 44-2, 45-3, 46-4, 47-2, 48-1, 49-4, 50-3.

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GYNAECOLOGY TEST

Answers

1. (D) Groove between labia minora and hymen

(Ref: Dutta Obstetrics 6th ed page - 2)

- There are two Bartholinis glands one on each side.
- They are situated in the superficial perineal pouch.
- They are pea sized and yellowish white in colour.
- During sexual excitement, it secretes abundant alkaline mucus which helps in lubrication.
- The glands are compound racemose variety and are lined by columnar epithelium.
- Each gland has a duct which measures about 2 cm and opens into the vestibule outside the hymen at the junction of the anterior two third and post. one third in the groove between the hymen and the labium minus.
- The duct is lined by columnar epithelium but near its opening by stratified squamous epithelium.

2. (D) External pudendal artery

(Ref: Dutta Gynaecology 4th ed page - 7)

The arterial supply to vagina is derived from:

1. Cervical vaginal branch of uterine artery
2. Vaginal artery $\longrightarrow$ branch of anterior division of internal iliac or in common origin with the uterine artery.
3. Middle rectal
4. Internal pudendal.

These anastomose with one another and form two azygos arteries – anterior and posterior.

3. (A) Thelarche - pubarche - menarche

(Ref: Dutta Gynaecology 4th ed page - 46, Gyn. Shaw 13th ed page - 51, Fig. 4.3)

The most common order is beginning of the growth spurt breast budding (Thelarche)

↓

Pubic and axillary hair growth (adrenarche)

↓

Peak growth in height

↓

Menstruation (Menarche)

4. (A) Hot flushes

(Ref: Shaw Gynaecology 13th ed page - 59)

Early features of Menopause.

Hot flushes.

Sweating.

Insomnia.

Headache.

Psychological.

Cancer phobia.

Pseudocyesis.

Irritability.

Depression.

Lack of Concentration.

The most common and the most noticeable symptoms of hot flushes and sweating are the hallmark of the menopause in 85 percent women. (Due to decreased OGN levels).

5. (B) 6 consecutive months

(Ref: Shaw Gynaecology 13th ed page - 66)

- One year period of Amenorrhoea after the age of 40 is considered as menopause
- Vaginal bleeding occurring any time after 6 months of amenorrhoea in a menopausal age should be considered as postmenopausal bleeding.

Premature menopause:

- Clinically defined as 2o or secondary amenorrhoea for atleast 3 months with↑ FSH, ↑ $\frac{FSH}{LH}$ ratio and low E2 level in a woman under 40 years of age.

Precocious Menstruation :

- If menstruation starts before 10 years of age.

Precocious puberty :

- If Secondary Sexual Characters develops before 8 years age.

Primary amenorrhea :

- If menstruation fails to begin by 16 years of age (or) by 14 years of age in presence of well developed S S C.
- 2o amenorrhoea : Refers to failure of occurrence of menstruation for 6 months or longer in a women who have previously menstruated.

6. (A) Columnar epithelium

(Ref: Dutta Gynaecology 4th ed page - 8, 9)

- Endocervical canal is lined by single layer of tall columnar epithelium with basal nuclei.
- Portiovaginalis is covered by stratified squamous epithelium.
- The Transitional zone is covered by squamous epithelium.

7. (C) Lateral wall

(Ref: Shaw Gynaecology 13th ed page - 77)

- Sites for cytology

1) Cancer Cytology - Posterior vaginal wall

2) Hormonal Cytology - Upper Lateral Vaginal wall.

8. (B) Secretory phase

(Ref: Shaw Gynaecology 13th ed page - 153)

- Dilation and curettage should be carried out in the late premenstrual phage.
- Hysterosalpingography (HSG) is performed between the end of the menstrual period and ovulation.

(Usually the 10th day of cycle).

9. (A) 21 hydroxylase

(Ref. Dutta's Text book of Gynaecology 4th ed:404)

Congenital adrenal hyperplasia is due to deficiency of enzyme 21- hydroxylase.17- hydroxy- progesterone plasma level is raised. Cortisol deficiency occurs at times of stress.

10.(B) Klinefelters syndrome

(Ref: Shaw Gynaecology 13th ed page - 108)

- 47 XXY, Hypogonadism - Klinefelter's Syndrome.
- 45 XO - Turers syndrome

Klinefelter's syndrome - Male hypogonadism

- 47, XXY
- Sex chromatin positive
- Sterility
- Gynaecomastia
- Eunuchoid appearance
- Mental retardation or deliquent
- Increased sole to os pubis length
- FSH levels increased
- Testosterone levels decreased.

11.(A) Testicular feminization

(Ref: Dutta Gynaecology 4th ed page - 406)

Testicular feminization syndrome or Androgen insensitivity syndrome or male intersex.

Primary amenorrhea - absent ovaries, Grade V thelarche - well developed breasts, Grade II pubarche, no axillary hair - Scanty axillary and pubic hair. More suggestive of Testicular feminisation.

- The cases presents with primary amenorrhoea or infertility.
- They are phenotypically and psychologically female with adequate breast development.
- Absent pubic and axillary hair
- Short and blind vagina.

12.(C) Mccune - Albright Syndrome

(Ref: Nelson paediatrics 17/e page - 1867)

Mccune - Albright Syndrome:

- Sexual precocity
- Multiple cystic bone lesions (Polyostotic Fibrous dysplasia)
- Cafe-au-lait spots on the skin
- Endocrinopathies.

13.(D) Pruritus vulvae

(Ref: Shaw Gynaecology 13th ed page - 115)

- Ball's operation :- Division of cutaneous nerves by a circular incision around the vulva (Rarely performed now)
- Done for pruritis vulvae

Note: Mering's Procedure:-Under cutting of Vulval Skin in Lichen Sclerosus et atrophicus (LSA).

14.(B) Superficial Inguinal nodes

(Ref: Shaw Gynaecology 13th ed page - 379)

- Carcinoma Vulva - 90% Squamous cell carcinoma
- At first the Superficial inguinal nodes are involved. Through lymphatic emboli, but later lymphatic permeation is seen. (pg -175).
- Superficial inguinal nodes → Via Gland of Cloquet → Deep nodes.

  ↓

  External Iliac nodes, obturator nodes, Common Iliac nodes

15.(C) Stratified squamous

(Ref: Shaw Gynaecology 13th ed page - 121)

- The Vaginal epithelium is lined by squamous epithelium.
- In new borns by transitional epithelium.
- The Squamous cells are divided into three layers. Superficial, middle and deep.
- The Deep layer Consists of two types of cells, basal and parabasal.
- Vaginal smear with basal cell predominance typical of low oestrogen content.
- eg: Menopausal, Lactating or post partum smears.

Note: Cornification index is directly proportional to oestrogen levels and inversely proportional to progesterone levels.

16.(D) Endocrine status of the patient

(Ref: Shaw Gynaecology 13th ed page - 123)

- The Cornification index - the percentage of the cornified cells is useful for assessing oestrogen activity.

Cornification Index :

- Directly proportional to OGN levels
- Inversely proportional to PGN levels
- Highest in late proliferative phase
- High in new born infant because of high oestrogen levels.

17.(C) 5

(Ref: Shaw Gynaecology 13th ed page - 123)

Vaginal pH:

- Newborn - 5.7
- Children - 6–8
- Puberty - 4
- Pregnancy - 4
- Menopause - 7
- Child bearing period - 4.5

18.(B) Administration of DES to pregnant mothers

(Ref: Dutta Gynaecology 4th ed page - 315)

DES ingested during pregnancy can cause :

a) Adenosis and adenocarcinoma of vagina in young girls.

b) T. Shaped uterine Cavity in female offspring.

c) Ca - Cervix

d) Sarcoma botryoides.

19.(A) Gardnella vaginalis

(Ref: Dutta Gynaecology 4th ed page - 143)

Clue Cells - "The epithelial cells with fuzzy border due to adherence of bacteria" are seen in Bacterial Vaginosis caused by Gardenella vaginalis.

Vaginal discharge is white, milky and non viscous :

20.(A) Hematogenous

(*Ref: Dutta Gynaecology 4th ed page - 129)*

- From any of the primary sites, the pelvic organs are involved by hematogenous spread in about 90 percent cases.
- The commonest site of affection is the fallopian tubes. Both the tubes are affected simultaneously.
- The initial site of infection is in the submucosal layer of the ampullary part of the tube.

21.(A) Stress incontinence

(Ref: Shaw Gynaecology 13th ed page - 191)

- Marshall Marchetti - Krantz Operation is Surgical repair of stress urinary incontinence.
- Marshal Marchetti - Krantz is retropubic colposuspension which sutures the bladder neck and vaginal vault to the periosteum of the back of the pubic symphysis.

Surgeries for stress incontinence:

1) Stamey Operation.

2) Sling Operations (Aldridge, Millin and Shaw).

3) Marshal - Marchetti - Krantz operation.

4) Burch colposuspension.

5) pereyra operation.

6) Laproscopic colposuspension of bladder neck.

22.(A) Stress incontinence

(Ref: Shaw Gynaecology 13th ed page - 191)

- Kelly's repair - Anterior Colporrhaphy with plication of bladder neck is done for stress incontinence.

Surgeries for stress incontinence:	**Surgeries for uretero vaginal fistula:**
- Anterior colporrhapy	- Boari Operation
- Stamey	- Uretero ureteric implantation
- Kelly's repair	- leal bladder conduit
- Pacey's repair	
- MMK	
- Burch Colposuspension	
- Sling Operation.	
- Pereyra Operation.	
- Laparoscopic colposus	- pension of bladder neck

23.(B) Ureterovaginal fistula

(Ref: Shaw Gynaecology 13th ed page - 181)

- Ureteric fistula result from direct injury or devascularization of the pelvic ureters during gynecological surgery as during wertheims operation for carcinoma cervix.
- The ureter is vulnerable to injury during the clamping and cutting of infundibulo pelvic ligament during panhysterectomy, during exposure of the ureter in the ureteric canal, during placement of the clamps on parametrium.

24.(B) Ureterovaginal fistula

(Ref: Dutta Gynaecology 4th ed page - 387)

Three swab test

Observation	**Inference**
Upper most swab soaked with urine but unstained with dye. The lower two fistula swabs remain dry.	Uretero - Vaginal fistulae
Upper and lower swabs remain dry but the middle swab stained with dye.	Vesico - vaginal fistula
The upper two swabs remain dry but the lower swab	Urethro - Vaginal stained with dye

25.(B) 100^0

(Ref: Shaw Gynaecology 13th ed page - 185)

- Normal posterior urethrovesical angle is 100 degrees.

26.(C) Reduction in the motility of sperms

(Ref: Shaw Gynaecology 13th ed page - 202)

- Aspermia - No Semen
- Azoospermia - No Sperm in Semen
- Astheno spermia - No motile sperm or diminished motility
- Necrospermia - Dead Sperms
- Teratospermia - Abnormal Morphology of Sperms.

27.(D) 50 million/ml

(Ref: Shaw Gynaecology 13th ed page - 202 ; Ganong - 22-e, page 427 Table 23-4)

ESC - Effective sperm count

ESC: ESC > 50 million/ml indicative of fertility in husband

Acridine orange stain is used

Fertility of Sperm head - green nonfertile speram head - red

Semen Analysis

- Sperm Count is 60 -120 Million per ml.
- Total volume 3–5 ml.
- Average 100 Million
- 10 motile sperms per high field are considered normal.
- pH of Seminal fluid is 8
- Motility - 80–90 %, Morphology - 80%
- Counts below 20 Million per ml Oligospermia
- Azoospermia is no sperm in semen.

28.(A) Post-coital test

(Ref: Shaw Gynaecology 13th ed page - 202)

- The Presence of antisperm antibodies in cervical mucus is detected by post-coital test.
- Post coital test (or) sims test or Huhner's test.
- Done in Late proliferative phase
- Done 8 - 12 hrs after coitus
- Normally 10 - 50 motile sperms are seen per high power field in cervical mucus.

- Generally sperms shows progressive but not rotatory movements.
- Presence of anti sperm antibodies in cervical mucus imparts rotatory or shaky movements to sperms or may totally immobilize them.
- Assessment of sperm, mucus interaction can be done.
- Test reflects cervical factor.

29.(C) Just near due date of the next menstruation

(Ref: Shaw Gynaecology 13th ed page - 213)

- Endometrial Biopsy - Curetting Small pieces of Endometrium from the uterus with biopsy curette.
- Don preferably one or two days before the onset of menstruation.

Note: The testing of tubal patency and detecting tubal pathology is done in preovulatory phase.

30.(A) The occurence of menses

(Ref: Shaw Gynaecology 13th ed page - 212)

Tests of ovulation :

1) BBT -

Falls at the time of ovulation by about 0.50F

2) Endometrial biopsy :

Secretory changes prove that the cycle it as been ovulatory.

3) Fern test :

Ferning disappears after ovulation.

Ferning is due to Nacl in mucus secreted under OGN effect.

4) Spinnbarkeit test / or thread test :

Ovulation mucus has great elasticity

5) Ultrasound

Monitoring Maturation of graffian follicle.

6) Plasma progesterone :

Rises after ovulation and reaches the peak of 15 ng / ml at mid luteal phase.

31.(A) Cervical factor

(Ref: Shaw Gynaecology 13th ed page - 202)

Post coital test or sims test or Huhner's test:

- Done to asses sperm - mucus interaction.
- Done in late proliferative phase.
- Done 8 - 12 hrs after coitus.
- Normal 10-50 motile sperms / HPF
- Reflects cervical factor.

32.(D) Rifampicin

(Ref: Dutta Obstetrics 6th ed page - 545)

- Rifampicin, an antibiotic prescribed for a TB patient reduces the absorption of the pill hence it is contra indicated in TB pt with rifampicin.
- Other drugs interfering with OC pills are Tetracycline and anticonvulsant.

Effectiveness of these **drugs Decrease**	Effectiveness of these drugs **Increased.**
• Oral anticoagulants	• BETA BLOCKERS
• Oral Hypoglycaemics	• Corticosteroids
• METHYL DOPA	• Diazepam, Aminophylline
• ALCOHOL	

33.(A) Post - coital hormonal contraception

(Ref: Shaw Gynaecology 13th ed page - 233)

Yuzpe Method is a Emergency contraceptive method also called post coital contraception.

YUZPE METHOD: Two tablets of OVARL should be taken as early as possible after coitus and two more tablets are to be taken 12 hours later.

2 Tabs of OVARAL as early as possible (with in 12 hours) (0.25mg LNG and 50mg EE)

+

2 More Tablets 12 Hours Later

Failure rate of this method is 3.2 per HWY

34.(C) Barrier contraceptive

(Ref: Shaw Gynaecology 13th ed page - 221, Ref: Dutta Obstetrics 6th ed page - 535)

- Today is Vaginal contraceptive sponge
- Made up of polyurethane impregnated with one gram of NONOXYNOL-9 as a SPERMICIDE
- NONOXYNOL-9 acts as a surfactant which either immobilises or kills sperms.
- It releases spermicide during coitus, absorbs ejaculate and blocks the entrance to cervical canal.
- The Sponge should not be removed for 6 hours after inter course.

failure rate is about 10 PHWY.

Note; Female Condom - FEMSHIELD

SAHELI - CENTCHROMAN

35.(B) Cervical mucus method

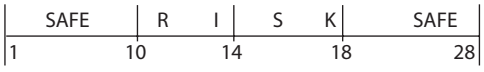
(Ref: Shaw Gynaecology 13th ed page - 218)

Mucus Method - Billings or ovulation method.

- "Cervical mucus changes under the influence of the ovarian hormones on different days of the menstrual cycle."
- The women attempts to predict the fertile period by feeling the cervical mucus
- Under oestrogen influence - mucus increase in quantity and becomes progressively more slippery and elastic.

  Under progesterone influence : Mucus becomes thicker, scanty and dry (DRY Days)
- Inter course is considered safe during the "dry days", immediately after the menses until mucus is detected.

Note: Safe period is - calculated from the first day of the menstrual period until the 10th day of the cycle and from the 18 the to the 28th day.



36.(D) Irving procedure

(Ref: Shaw Gynaecology 13th ed page - 236)

Failure rates of Tubectomy:

1) Pomeroy method	-	0.4 %
2) Madlener	-	7 %
3) Irving	-	Irreversible
4) Aldridge	-	High failure rate
5) Fimbriectomy	-	Permanent sterilization
6) Laproscopic sterilization	-	0.3–0.6%

37.(A) 30 ug

(Ref: Shaw Gynaecology 13th ed page - 226)

Mala N (Govt of India) - Norgestrel 0.30 mg (21 + 7 Iron Tabs) + Ethinyl estradiol 30 mg.

Mala D D- Norgestrel 0.30 mg. (21+7 Iron tabs) + Ethinyl oestradiol 30 mg.

Note: Progestins in milligrams

Oestrogens in micrograms.

Some of the oral contraceptives and their composition			
Commercial Names	Composition		No. of tablets.
	Progestins (mg)	Oestrogen (mg)	
1. Mala N (Govt. of India)	Norgestrel 0.30	Ethinyl oestradiol 30	21 + 7 iron tablets.
2. Mala D	D-norgestrel 0.30	-do-	21 + 7 iron tables.
3. Femilon (Infar)	Desogestrel 0.15	Ethinyl oestradiol 20	21.
4. Loette (Wyeth)	Levonorgestrel 0.1 mg	-do-	21.

38.(D) Rendering cervical mucus less penetrable by sperm

(Ref: Dutta Obstetrics 6th ed page - 548)

Progestin only pill (Minipill):

- Works mainly by making cervical mucus thick and viscus, thereby presents sperm penetration
- Atrophy of Endometrium
- In 2% cases causes inhibition of ovulation.

39.(A) Progestasert

(Ref: Shaw Gynaecology 13th ed page - 232)

Life span of progestasert is one year.

Lifespans :

a) Progestasert	- 1 year
b) Multiload 250	- 2 years
c) Copper T 200	- 3 years
d) Copper T 200 B	- 4 years
e) Lippes loop	- 5 years
f) Nova T	- 5 years
g) Copper T-308 A	- 10 Years
h) Multiload Cu 250	- 3 years
i) Multiload 375	- 5 years
j) LNG - IUD	- 5 years

40. (C) Serum levels of HCG

(Ref: Dutta Obstetrics 6th ed page - 199)

- Routine follow-up is mandatory for all cases for at least 6 months (serum, urine hcG)
- The prime objective is to diagnose persistent trophoblastic disease that is considered malignant.
- Initially the check up should be at an interval of one wk till serum HCG level becomes negative. This usually does by 4-6 wks.
- Women who undergo chemotherapy should be followed up for 1 year after hCG has been normal.

41.(A) 46 XX

(Ref: Dutta Obstetrics 6th ed page - 194)

- A complete mole is composed of 46 x x and all the chromosomes are of paternal origin.
- The partial mole demonstrates Triploid karyotype (69 chromosomes).

42.(A) Ampulla

(Ref: Dutta Obstetrics 6th ed page - 179)

- Most common site of Ectopic pregnancy - FT (97%).

1) Tubal - Commonest 97%.
   a) Ampulla 55%
   b) Isthmus 25%
   c) Infundibulum (18%)
   d) Interstitial 20%.

Ectopic pregnancy:

a) Extrauterine	b) Uterine (1.5%)
1) Tubal - 97%	1) Cervical
2) Ovarian - 0.5%	2) Angular
3) Abdominal - 1%	3) Cornual

Note: Ectopic pregnancy is one in which the fertilized ovum is implanted and develops outside the normal uterine cavity.

43.(E) Hypotension

(Ref: Shaw Gynaecology 13th ed page - 353)

PCOD (OR) STEIN LEVENTHAL SYNDROME:

- 1% female population suffers from PCOD.
- Pts are aged b/w 15-25 years of age.

There is

a) Chronic Non-ovulation
b) Hyperandrogenaemia (Raised testosterone)
c) Normal or raised oestrogen (E2)
d) Raised LH, Diminished FSH
c) Low ratio;

- The raised E2 level causes negative feedback to pitutary resulting in diminished FSH, but raised LH.
- Ovaries are often Bilaterally enlarged with thick capsule.
- Multiple cysts on ovary of 0.5 to 1 mm and at times up 20 cm.
- ATRETIC FOLLICLES.
- Theca cell hyperplasia seen which produces Excess testosterone.
- Secondary amenorrhea in young women.
- Infertility, Obesity, Hirsutism and Hypoplasia of breast
- Oestrogenic Endometrium.

44.(B) Clomiphene citrate

(Ref: Dutta Gynaecology 4th ed page - 487)

Colmiphene Citrate causes multiple pregnancy.

Side effects of clomiphene citrate:

- Hot flushes.
- Scotoma
- Hairloss
- Antioestrogenic action on Cervical mucus.
- Corpus luteal phase deficiency.
- Hyperstimulation Syndrome.
- Risk of neural tube defect.
- Multiple ovulation.
- Chronic treatment (>1 yr) - Ovarian malignancy.
- premature ovarian failure.

45.(C) Squamocolumnar junction

(Ref: Dutta Gynaecology 4th ed page - 299)

- Squamo columnar junction (SCJ) is the meeting point of Columnar epithelium, that lines the endocervical canal, with squamous epithelium that lines ectocervix.
- This SCJ is a dynamic point, that moves up and down in relation to different phase of life, eg; puberty, pregnancy and menopause.
- The metaplasia extends from the original SCJ (now Squamo - Squamous) outside the newly developed SCJ (non Squamo - Columnar) inside. This area is defined as transformation zone (TZ).

  The process of carcinogenesis starts at the transformation zone.

46. (B) Stomach

(Ref: Shaw Gynaecology 13th ed page - 402)

Krukenberg Tumour:

- The tumours are secondary growth in the ovary.
- Most often arise from a primary carcinoma stomach (70), large bowel (15%) Breast (6%).
- Invariably Bilateral.
- Shape of the ovary retained.
- Solid waxy in consistency.
- Arise by RETROGRADE lymphatic spread mostly.
- Histologically - Scattered large Signet rings cells seen.
- No tendency to form adhesions.
- No infiltration through capsule.

47.(C) Dysgerminoma

(Ref: Shaw Gynaecology 13th ed page - 361)

Dysgerminoma:

- Counterpart (Corresponds to) of Seminoma of the testis.
- Elastic rubber in consistency.
- Usually unilateral.
- Usually Neutral regarding Hormonal activity.
- Secretes placental Alkaline Phosphatase.
- Associated with genital abnormalities,
- Hypoplastic or absence of genital tract.
- Lymphocytic infiltration of fibrous septa is diagnostic.
- Seen also in pseudohermaphrodite.

48.(A) Laparoscopy

(Ref: Shaw Gynaecology 13th ed page - 444)

- Laproscopy is the gold standard in the diagnosis of Endometriosis.

Laproscopic findings of Endometriosis.

- Powder burn puckered black spots.
- Red, Vascular, blush, Blackish cysts.
- Chocolate cysts.
- Dense adhesions in pelvis.
- Yellow brown peritoneal fluid.

49.(D) Danazol

(Ref: Dutta Gynaecology 4th ed page - 304)

- Danazol causes Lowering of HDL and Liver and renal damage.

Other Side effects of Danazol:

- Wt. gain, Depression.
- Hirsutism.
- Excessive Sweating, Muscle cramps.
- Atrophy of Breasts and Vaginal epithelium.
- Teratogenic in early pregnancy causing masculinization of a female fetus.

50.(D) Cortisone

(Ref. Gyn. Shaw 13th ed, page – 103)

The treatment is administration of cortisone or hydrocortisone, or newer synthetic corticosteroids such as prednisolone.

(Courtesy: PG DIGEST, Vol.1, 2008, Kalam Books)

OBSTETRICS TEST

Questions

1. Secondary Oocyte consist of: (UP 2003)
A 46 xy B 46 xx C 23 y D 23 x

2. The zone of fibrinoid degeneration where the trophoblast and the decidua meet is known as: (AIIMS 1994)
A Folds of Hoboken B Nitabuch's layer
C Parietal decidus D Chorion

3. Oxygen saturation in umbilical vein is: (AP 1995)
A 40% B 60% C 70% D 100%

4. Amount of amniotic fluid at 12 weeks is: (PGI 1986)
A 150 ml B 100 ml C 200 ml D 400 ml

5. pH of amniotic fluid: (AIIMS-2001 Nov)
A 6.5 - 7 B 7.1 -7.3 C 7.4 – 7.8 D 7.8 – 8.1

6. Stain used for maturity assessment of Amniotic fluid cells: (JIPMER 1993)
A Leishmann's stain B Sudan red
C Nile Blue sulfate D Congo red

7. The source of HCG is: (AI 1988)
A Syncytiotrophoblast
B Cytotrophoblast
C Langhan's layer
D Chorionic villi

8. The chief source of progesterone is: (Kar 1990)
A Corpus luteum
B Adrenal cortex
C Theca cells of graafian follicle
D Granulosa cell of graafian follicle

9. Large placenta is seen in: (Orissa 96)
A Twins B Oligohydramnios
C IUGR D Preeclamptic toxemia

10. Which of the following includes the classical triad of 'enlarged upper part of uterus, soft lower part of body and firm cervix' during early pregnancy? (Maharashtra 2007)
A Hegar's sign B Jacquemier's sign
C Osiander's sign D Goodell's sign

11. Manual appreciation of fetal parts and fetal movement by examination is earliest possible at _____weeks of gestation. (MH SS CET 2006)
A 20 B 24 C 26 D 28

12. Which of the following Fetal Heart Rate (FHR) pattern is suggestive of chronic placental insufficiency?
A Early deceleration
B Late deceleration
C Variable deceleration
D None

13. The engaging diameter in brow presentation is: (AP 1987, SRMC 2000, PGI 2002)
A Suboccipitobregmatic B Suboccipito frontal
C Occipitofrontal D Mentovertical

14. On USG, in immune hydrops fetalis, following are seen EXCEPT: (AIIMS 1997)
A Skin edema B Large placenta
C Ascites D Pericardial effusion

15. Intrauterine diagnosis of anencephaly is done at what gestational age? (MH-SS-CET 2005)
A 10 to 12 weeks B 12 to 14 weeks
C 20 to 26 weeks D 22 to 26 weeks

16. The following soft markers and chromosomal abnormalities is correctly linked: (CMC vellore 2006)
A Echogenic bowel -triploidy
B Isolated facial clefts -T 13 & T18
C Exomphalos - T21.
D Cystic hygroma - 45XO.

17. Maternal serum Alpha-fetoprotein is raised in all the following conditions EXCEPT: (Kar 1994)
A Spina bifida B Multiple pregnancy
C Omphalocele D Down's syndrome

18. True about Amniocentesis:
A Is the preferred method for further investigation in pregnancy with raised serum AFP.
B Can be used to assess the severity of Rhesus disease.
C Has largely been superseded by chorionic villus biopsy.
D All of the above

19. Indications for prophylactic forceps to shorten second stage of labour include: (DNB 2005)
A Prematurity
B Previous LSCS
C Patient under epidural analgesia
D To curtail painful second stage

20. Lochia serosal persists upto: (AP1998)
A 1-3 days B 5-10 days
C 10-15 days D Upto 21 days

21. Hind mild is rich in? (Maharashtra 2007)
A Water B Fat C Proteins D All

22. Not a grave sign of preeclampsia? (AP 2005)
A Headache
B Decreased reflexes
C Epigastric discomfort
D Urine output < 600ml/day

23. Earliest sign of PIH is: (JIPMER 1998)
A Rapid gain weight B High BP
C Albuminuria D Edema

24. All of the following may be used in pregnancy associated hypertension except: (AI 2004)
A Nifedipine B Captopril
C Methyldopa D Hydralazine

25. True about Bicornuate Uterus:
A Occurs in 10 % of women.
B Is a proven cause of recurrent miscarriage.
C May be associated with urinary tract malformation.
D Is associated with placental abruption.

26. The most frequent presentation in twin pregnancy: (AP 99)
A Vertex and breech B Vertex and vertex
C Breech and breech D Breech and shoulder

27. Double Monster, fused in pelvic region is called:
A Ischiopagus B Thoracopagus
C Synencephalic D None of these

28. APH is caused by all the following EXCEPT: (AP 92)
A Placenta previa
B Abruptio placenta
C Circumvallate placenta
D Placenta accreta

29. Couvelaire uterus is seen in: (PGI 98, MAHARASHTRA 2006)
A Vasa previae B Placenta accreta
C Abruptio placentae D Placenta previae

30. During pregnancy corrective cardiac surgery is commonly indicated in: (UPSC2000)
A Mitral stenosis B Aortic stenosis
C ASD D VSD

31. Which of the following malformation in a newborn is specific for maternal IDDM? (PGI 95, AI 2006)
A TGA B Caudal regression
C Holoprosencephaly D Meningomyelocele

32. Anaemia in pregnancy is due to: (TN 94)
A Nutritional deficiency
B Dilutional anaemia
C RBC lysis
D Haemolytic anaemia

33. Chemotherapeutic agent contraindicated in TB with pregnancy? (Orissa 98)
A INH B RMP C ETM D Streptomycin

34. Feto-maternal transfusion is demonstrated in the mother by (AIIMS 91)
A Combs test
B Kleihauser count
C Electrophoretic Method
D Reticulocyte Count

35. ABO incompatibility usually occurs when the mother's blood group is (DNB 90)
A A B B C AB D O

36. Match list I (Feature) with List II (Diagnosis) and select the correct answer using the codes given below the lists:

List I	List II
A. Star gazing fetus	1. Transverse lie
B. Frog eye Appearance	2. Breech with extended head
C. Buddha's position	3. Anencephaly
D. Partus conduplicate Corpore	4. Hydrops fetalis

Codes :

A	A 1	B 4	C 3	D 2
B	A 1	B 3	C 4	D 2
C	A 2	B 4	C 3	D 1
D	A 2	B 3	C 4	D 1

37. For the treatment of urinary tract infection during first trimester of pregnancy, best drug is: (KAR 2005)
A Nitrofurantoin B Cephalosporins
C Aminoglycosides D Cotrimoxazole

38. Deep vein thrombosis in pregnancy is best treated by: (UPSC 2004)
A Heparin in the 1st trimester and warfarin in the 2nd and 3rd trimesters
B Warfarin in all trimesters
C Heparin in all trimesters
D Heparin in the 1st and 2nd trimesters and Warfarin in the 3rd trimester

39. Premature rupture of membranes is rupture: (MP 2003)
A Less than 32 wks
B Before onset of labour
C Before 2nd stage of labour
D All of the above

40. One of the following indicates death of foetus in utero (JIPMER 90)
A Spalding sign
B Failure of uterus to enlarge
C Blood strained discharge
D Absence of fetal movements

41. The most common type of female pelvis is (AFMC 94)
A Gynecoid B Android
C Anthropoid D Platypelloid

42. Commonest type of breech presentation: (AI 90)
A Complete B Frank
C Incomplete D Compound

43. Deep transverse arrest is commonly associated with which of the following types of pelvis? (Manipal 2002, Maharashtra 2007)

A Platypelloid B Android
C Anthropoid D Gynecoid

44. Which of the following is the commonest fistula as a complication of obstructed labor? (Kar 2007)

A Vesico - Vaginal Fistula
B Uretro - Vaginal Fistula
C Uretro - Abdominal Fistula
D Vesico - Cervical Fistula

45. Shoulder dystocia is predominantly seen in (TN 90)

A Transverse lie B Hand prolapse
C Anencephaly D Cord around neck

46. Definition of PPH is blood loss of (KAR 96)

A 500ml B 750 ml C 1000 ml D 1050 ml

47. Least common complication of 3rd stage of labour (AP 92)

A PPH
B Inversion of uterus
C Retention of placenta
D Hematoma of vulva

48. Placenta accreta true statement (AIIMS 99)

A Associated with previous LSCS
B Removed piece meal in GA
C Risk for amniotic fluid embolism
D Will penetrate serosa.

49. All are the risk factors associated with Macrosomia except: (AI 2005)

A Maternal obesity B Prolonged pregnancy
C Previous large infant D Short stature

50. Very low birth weight means birth weight less than: (JIPMER 93)

A 1000 B 1500 C 2000 D 2500

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OBSTETRICS TEST

Answers

1. (D) 23X

Secondary oocyte consist of 23X chromosomes.

The primary oocyte undergoes first meiotic division giving rise to secondary oocyte and one polar body. Secondary oocyte has haploid number of chromosomes. Ovulation occurs soon after formation of secondary oocyte. The secondary oocyte completes the second meiotic division only after fertilization by the sperm in the fallopian tube.

2. (B) Nitabuch's layer

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. – 34)

There is an area of fibroid degeneration, where trophoblast cells (covered with syncytium) meet the decidua. This zone is known as Nitabuch layer. This layer limits further invasion of the decidua by the trophoblast. The membrane is absent in placenta accreta.

3. (C) 70%

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. – 33 Tab. No. 3.2)

Parameter	Umbilical artery	Umbilical vein
O_2 saturation	50-60%	70-80%
PO_2	20-25 mmHg	30-40 mmHg

4. (A) 150 ml

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. – 37)

Amniotic fluid volume

a. 12th week—150 ml

b. 20th week—400 ml

c. 36–38th week—1000 ml

d. At term—600–800 ml

5. (B) 7.1 - 7.3

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. – 38)

Properties of amniotic fluid:

- pH: 7.1–7.3
- Specific gravity: 1.010
- Osmolarity: 250 mOsmol/l—a sign of fetal maturity.

6. (C) Nile blue sulfate

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. – 117)

Amniotic fluid indicators of fetal maturity:

- Physical: Osmolarity of 250m Osmol/lit
- Chemical: L: S ratio>2
  Identification of phosphatidyl glycerol creatinine> 2mg/1000ml
- Cytological: Orange colored cells>50% when stained with 0.1% Nile blue sulphate
- Spectrophotometric:
- Optical activity >0.15

7. (A) Syncytiotrophoblast

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. – 58)

The Syncytiotrophoblast of the placenta produces HCG. The half-life of HCG is about 24 hours. By radioimmunoassay, it can be detected in the maternal serum or urine as early as 8-9 days following ovulation.

8. (A) Corpus luteum

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. – 58)

In the very early stage of pregnancy, the corpus luteum secretes 17-hydroxy progesterone. Following development of trophoblast, progesterone is synthesized and secreted in increasing amount from the placenta.

9. (A) Twins

(Ref. Dutta obst 4th ed.221)

Large Placenta/Hyperplacentosis Is Seen In

- Twin pregnancy
- Hydrops fetalis
- Diabetes in Pregnancy
- IUGR

10. (A) Hegar's sign

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. – 76)

Signs of Early Pregnancy

1. Jacquemier's or Chadwick's sign (eighth week): Dusky hue of vestibule and anterior vaginal wall.
2. Osiander's sign (eighth week): Increased pulsations felt through lateral fornices.
3. Goodell's sign (sixth week): Softening of cervix.
4. Piskacek's sign: asymmetrical enlargement of uterus if there is lateral implantation.
5. Hegar's sign (6–10th week): Variation in uterine consistency due to the enlargement of upper part of the body of uterus and soft and empty lower part of the body with cervix being firm.
6. Palmer's sign (4–8th week): Regular and rhythmic uterine contractions elicited during bimanual examination.
7. Palpation of fetal parts can be distinctly made by 20th week of gestation.
8. Fetal heart may not be audible in cases of mater-nal obesity, polyhydramnios, IUD and OPP.
9. Placental sign: Cyclic bleeding up to 12th week of pregnancy until decidual space obliterated.

11. (A) 20

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. – 69)

Abdominal examination features of 2nd trimester of pregnancy

Linea nigra – visible as early as 20 weeks

Uterus feels soft and elastic

Braxton-Hicks contractions (weak, irregular, regional contractions) become evident, usually occur for weeks before the onset of actual labor.

Palpation of fetal parts can be made distinctly by 20 weeks.

Active fetal movements can be felt by placing hand over uterus as early as 20 weeks.

External ballottement is usually elicited as early as 20th week when fetus is relatively smaller than amniotic fluid volume. It is best elicited in breech presentation.

Internal ballottement can usually be elicited between 16 to 28th week. It may not be elicited when fetus is transversely placed.

FHS, the most conclusive sign of pregnancy, can be detected by 18-20 weeks by ordinary stethoscope.

12.(B) Late deceleration

(Ref: Textbook of obstetrics by Dutta - 6th ed. 609)

Peaks / accelerations are increase in FHR by 15bpm or more for at least 15 seconds for at least 15 seconds, it denotes healthy fetus.

Deceleration is decrease in FHR below base line by 15 bpm.

Base line variability of 5-25 bpm is a sign of fetal well-being.

Reduced baseline variability is seen in fetal hypoxia, sleep phase, congenital malformation and drug intake by mother like sedatives and anti-hypertensives.

Normal fetal scalp pH is 7.25 to 3.35

NST		Fetal status
1. Peaks / accelerations	-	Healthy fetus
2. Reduced baseline variability	-	Fetal hypoxia, sleep phase congenital malformation and drug intake by mother like sedatives and anti-hypertensives.
3. Early deceleration	-	Head compression
4. Late deceleration	-	Chorioplacental insufficiency
5. Variable deceleration	-	Cord compression (may disappear with change in position of patient)
6. Sinusoidal pattern	-	Fetal anemia Fetomaternal hemorrhage Fetal hypoxia Narcotics to mother

13.(D) Mentovertical

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. – 89 table)

The anteroposterior diameters of head, which may engage, are:

Diameters	Attitude of head	Presentation
1. Suboccipitobregmatic (9.5cm)	Complete flexion	Vertex
2. Suboccipito frontal Vertex	Incomplete (10.00cm)	flexion
3. Occipitofrontal (11.5cm)	Marked deflexion	Vertex
4. Mentovertical (14cm)	Partial extension	Brow
5. Submentovertical (11.5cm)	Incomplete extension	Face
6. Submentobregmatic (9.5cm)	Complete extension	Face

14.(B) Large Placenta

(Ref. Sutton Radiology 7th ed. 1228)

Immune hydrops fetalis (Erythroblastosis fetalis): features

- Anasarca (skin edema)
- Fetal ascites
- Pleural effusion
- Pericardial effusion
- Hepatosplenomegaly
- Placentomegaly (> 6cm)
- Increased umbilical vein diameter
- Increased flow in MCA

15.(B) 12 to 14 weeks

(Ref. Sutton Radiology 7th ed. 1050)

The main sonographic feature of anencephaly is symmetric absence of the skull vault, and the cerebral hemispheres but relative preservation of brainstem and portion of midbrain. Although on ultrasonographically the diagnosis can be suspected by 12-13 weeks of gestation, it is more reliable by around 15-16 weeks, when the ossification in normal calvarial bones is more obvious.

16.(D) Cystic hygroma 45XO

a. duodenal atresia T21
b. "bright bowel" T21
c. hydronephrosis T21
e. cystic hygroma 45XO.
f. nuchal oedema T21.
h. choroid plexus cysts T21.
i. sandal gap T21.
j. rocker bottom feet T18.

17.(D) Down's syndrome

(*Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. – 112)*

ABNORMALITIES OF MATERNAL SERUM alpha-FETOPROTEIN (MSAFP)

AFP is a glycoprotein produced by the yolk sac and fetal liver

Fetal serum AFP concentrations peak at ~ 13 weeks gestation

Amniotic fluid AFP concentrations peak at ~ 12 weeks gestation

MSAFP concentrations peak ~30-32 weeks gestation and rise linearly between 15-20 weeks (uE3 concentrations rise while HCG concentrations fall between 15-20 weeks)

Causes Of Raised MSAFP

Upper GI obstruction

Wrong dates (under-estimation)

Obstructive uropathy

NTD

Feto-maternal haemorrhage

Congenital nephrosis

CAML (Cystic adenomatoid malformation of the lung)

Placental / cord tumors

Sacrococcygeal teratoma

Multiple pregnancy

Maternal liver disease

Male fetuses have higher MSAFP

Abdominal wall defects

Afro-Caribbean ethnic background

Associated with increased risk of IUD / PPROM / IUGR / oligohydramnios / pre-eclampsia

Smoking

Causes Of Low MSAFP

Down's syndrome

Wrong dates (over-estimation)

High maternal weight

Trisomy 18

18.(B) Can be used to assess the severity of Rhesus disease

Babies affected by Rhesus disease have a haemolytic anaemia.

Bilirubin levels rise and some of this finds its way into the liquor.

So the severity of the process can be gauged by amniocentesis.

19.(A) Prematurity

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. – 390, 577)

Indications for prophylactic forceps (to shorten second stage of labour)

1. Previous h/o LSCS
2. Post maturity
3. Heart disease
4. Low birth weight
5. Patient under epidural analgesia
6. To curtail painful second stage
7. Eclampsia

20.(B) 5-10 days

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. – 155)

Lochia is the vaginal discharge for the first fortnight during puerperium. It has got peculiar offensive fishy smell. Its reaction is alkaline tending to become acid towards the end. It is named as:

- Lochia Rubra (red) – 1 to 4 days
- Lochia serosal 5-9 days
- Lochia alba (Pale white) 10-15 days

21.(B) Fat

(Ref. OP Ghai Essential Paediatrics 6th ed 150)

Hind milk comes later towards the end of feed and richer in fat content and provides more energy, and satisfies the baby's hunger. Thus the composition of milk also varies during the phase of feeding. And for optimum growth, the baby needs both fore and hind milk. The baby should therefore be allowed to empty one breast before being offered the other breast.

22.(D) output < 600ml/day

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. – 235)

Severe Preeclampsia

- Headache
- Epigastric pain
- BP > 160-180 systolic or 110 diastolic
- Proteinuria > 5 gm per day
- Oliguria (< 400 ml/24 hours)
- Pulmonary edema
- Jaundice
- Elevated liver enzymes
- Low platelets
- Growth restriction

23.(A) Rapid gain in weight

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. – 240)

Manifestations of preeclampsia usually appear in the following order:

Rapid gain in wt visible edema and/or hypertension Proteinuria

24.(B) Captopril

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. – 507)

ACE inhibitors are contraindicated in (captopril, Enalapril)

i. Bilateral renal artery

ii. Unilateral

iii.Pregnancy

25.(C) May be associated with urinary tract malformation.

- Significant uterine malformation is said to occur in <1 % of women, but in >10 % of those with recurrent miscarriage.
- It is not thought to be the major cause.
- The genital and urinary tracts develop hand in hand, abnormality in one is associated with an increased risk of malformation in the other.

26.(B) Vertex and vertex

(Ref. Textbook of obstetrics D C Dutta 6th ed. 218)

The commonest lie of foetus is longitudinal (90%) but malpresentations are quite common.

The combinations of presentation of the fetuses are:

1. Both vertex (commonest)
2. First vertex and second breech
3. First breech and second vertex
4. Both breech
5. First vertex and second transverse

But rarest possibility is both twins in transverse lie when possibility of conjoined twins should be ruled out.

27.(A) Ischiopagus

The term ischiopagus is used to indicate a connection by any part of the pelvic girdle, usually they are joined by inferior margin of sacrum and coccyx.

28.(D) Placenta accreta

(Ref. Textbook of obstetrics D C Dutta 6th ed. 256, 276)

Ante-Partum Haemorrhage

Bleeding from the genital tract after the gestation age for fetal viability (20-22 weeks)

CAUSES

- Placenta previa (~30%)
- Placental abruption (~20%)
- Other causes – vasa previa, trauma, cervical polyp / ectropion, 'show', vulvo-vaginal varices, genital tract malignancy, infection.

29.(C) Abruptio placentae

(Ref. Textbook of obstetrics D C Dutta 6th ed. 269)

"Couvelaire uterus" is a phenomenon wherein the retroplacental blood may penetrate through the thickness of the wall of the uterus into the peritoneal cavity. This may occur after abruptio placentae.

30.(A) Mitral stenosis

(Ref. Textbook of obstetrics D C Dutta 6th ed. 297)

In pregnant patients with rheumatic heart disease, the murmurs of mitral or aortic stenosis are amplified; those of mitral or aortic insufficiency are diminished. Patients with asymptomatic or only mildly symptomatic mitral or aortic insufficiency usually tolerate pregnancy without difficulty; those with severe symptoms are often advised to have valve replacement before becoming pregnant. Reported maternal and fetal mortality rates among patients with aortic stenosis are high, and patients with severe stenosis should be advised to have surgical correction before becoming pregnant.

- Mitral stenosis is especially dangerous because the tachycardia, increased blood volume, and increased cardiac output of pregnancy interact with this lesion to elevate pulmonary capillary pressure; atrial fibrillation is also common. Together, these factors increase the risk of pulmonary edema, the most lethal complication of mitral stenosis.
- Mitral valvotomy can be performed during pregnancy, but open heart surgery increases the risks of abortion and fetal damage.
- Prophylactic antibiotic therapy should be continued during pregnancy.
- Medical management is based on limiting physical activity, fatigue, and anxiety; preventing or promptly treating anemia; and promptly treating infection.
- In patients with mitral stenosis, digoxin 0.25 mg/day po is used if atrial fibrillation develops.
- Labor and delivery are best tolerated at full term, and close attention to analgesia and to relief of anxiety is essential.
- Generally the most hazardous time is during peak cardiac output (at 20 to 34 wk).

31.(B) Caudal regression

(Ref. Care of Newborn by Maherban singh 6th ed. 74; Textbook of obstetrics D C Dutta 6th ed. 303)

Congenital anomalies associated with IDM are:

1. Congenital heart disease
2. Neural tube defects
3. Musculoskeletal diseases
4. Caudal regression (Sacral agenesis)
5. Renal agenesis
6. Left lazy colon syndrome

Almost half of all cases of Caudal regression are seen in IDMs, characterize by varying degree of development defects of legs, LS spine, vertebrae, and corresponding segment of spinal cord.

32.(B) Dilutional anaemia

(Ref. Obstetrics by Dutta 13th ed. 262)

Anaemia In Pregnancy

- WHO definition of anaemia in pregnancy is hemoglobin less than 11 g/100 ml (Delhi-99).
- MCHC is the most sensitive index of iron deficiency anaemia in pregnancy, serum ferritin being the other important index.
- Total elemental iron required = 0.3 x weight in pounds (100-Hb %) + 0.5.
- WHO recommends supplemental 60 g. iron tablet daily to a pregnant mother after first trimester.
- The real threat of anaemia in pregnancy is postpartum hemorrhage.

33.(D) Streptomycin

(Ref. Textbook of obstetrics D C Dutta 6th ed. 299)

Streptomycin is ototoxic and hence avoided in TB with pregnancy.

34.(B) Kleihauser count

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. 356)

Approximate volume of fetal blood entering into the maternal circulation is to be estimated by Kleihauser count using acid elution technique to note the number of fetal red cells (dark, retractile bodies) per so low power fields.

35.(D) O

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. – 481)

ABO incompatibility is common if mother's blood group is 'O', Fetal blood group is 'A' and father's blood group is 'A'.

36.(D)

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. – 481)

Transverse lie Partus conduplicate Corpore

Star gazing fetus Breech with extended head

Hydrops fetalis Buddha's position

Anencephaly Frog eye Appearance

37.(A) Nitrofurantoin

Nitrofurantoin is safe for the treatment of urinary tract infection during first trimester of pregnancy.

38.(A) Heparin in the 1st trimester and warfarin in the 2nd and 3rd trimesters

No drug is absolutely contraindicated - need to balance potential risks and benefits and the availability of alternative therapies. Heparin safe in the 1st trimester and warfarin in the 2nd and 3rd trimesters.

39.(B) Before onset of labour

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. 337)

Spontaneous rupture of membranes anytime beyond 28th week of pregnancy but before the onset of labour is called prelabour rupture of members or premature rupture of membranes.

40.(A) Spalding sign

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed.344, 345)

- Robert's sign (gas in heart and great vessels) appears as early as 12 hour of death. It is the reliable sign of IUD.

41.(A)

Based on shape of inlet, the female pelvis is divided into 4 parent types:

Gynecoid (50%) - Inlet is round

Anthropoid (25%) - Inlet is anteroposteriorly oval

Android (20%) - Inlet is triangular

Platypelloid (5%) - Inlet is transversely oval.

42.(A) Complete

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. 375)

- Breech	-	Complete
	-	Incomplete
- Complete (Fixed breech)	-	Common in multiparae

- Incomplete breech - Breech with extended legs – Frank (common in primigravida breech)
  Footing presentation
  Knee presentation

43.(B) Android

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. 372)

DTA

Etiology of DTA:

- Android pelvis
- Weak uterine contraction
- Lax pelvic floor

Treatment of DTA:

- Ventouse is ideal
- Application of forceps can be useful
- LSCS, if big baby, inadequate pelvis
- In about 20% patients' normal delivery can occur.

44.(A) Vesico - Vaginal Fistula

(Ref. Jeffcoat's Gynaecology 6th ed. 252)

VVF is a communication between bladder and vagina. As such it leads to constant dribbling incontinence. World wide, it is most often the aftermath of obstructed labour.

45.(C) Anencephaly

(Ref. Dutta Obst. 5th ed. 437)

Predisposing factors for shoulder dystocia:

1) Fetal Macrosomia
2) Obesity
3) Excessive weight gain in pregnancy
4) Midpelvic instrumental delivery
5) Anencephaly
6) Fetal Ascites
7) Short cord or cord tightly around neck.

46.(A) 500ml

(Ref. Dutta Obst. 5th ed. 441)

Definition of PPH: Blood loss in excess of 500ml following birth of baby.

Types:

1) Primary: Haemorrhage within 24 hours following birth of baby

   Third stage Haemorrhage - Bleeding occurs before expulsion of placenta.

   True post partum Haemorrhage - Bleeding occurs Subsequent to expulsion of placenta.

2) Secondary: Haemorrhage occurs beyond 24 hours and within puerperium, also called delayed or late puerperal Haemorrhage.

47.(D) Hematoma of vulva

(Ref. Textbook of Obstetrics D.C. Dutta 6th Ed. 441)

The important complications of 3rd stage of labour are:

1) Post partum Haemorrhage
2) Retention of placenta
3) Shock: (Haemorrhagic and Non-hemorrhagic)
4) Pulmonary embolism (amniotic fluid lair)
5) Uterine inversion.

48.(A) Associated with previous LSCS

(Ref. Dutta Obstetrics 6th ed. 451)

Placenta Accreta

- Absence of decidua basalis.
- Absence of Nitabuch fibrinoid layer.
- Varying degree of penetration of villi into the muscle bundles (Placenta increta) or up to serosal levels (placenta percreta).
- Management: Manual removal of placenta if mother is young and primi, under GA Hysterectomy if mother is old and multiparous.

49.(D) Short stature

Fetal macrosomia is common with maternal obesity, prolonged pregnancy and diabetic mother. Maternal short stature is not a risk factor for fetal macrosomia.

By definition, birth weight >4 kg, a head: abdomen ratio of <0.9 indicates significant head to body disproportion indicate macrosomia.

There is increased risk of shoulder dystocia.

50.(A) 1000

(Ref. Text book of Obstetrics by Dutta 6th ed. 457)

Low birth weight is defined as one whose birth weight is less than 2500gm irrespective of the gestational age.

Very low birth weight infants weight 1500gm or less and extremely low birth weight infants weight 1000gm or less.

(Courtesy: PG DIGEST, Vol.1, 2008, Kalam Books)

ALL INDIA Model Test Paper

Total marks: 300 Time: 3&1/2 hrs

Compiled by **Dr Bipin V Daga**, MD

1. **A 43-year-old woman came with a large abscess in the middle of the right posterior triangle of the neck. The physician incised and drained the abscess. Five days later the patient noticed that she could not extend her right hand above her head to brush her hair. Which of the following are the signs and symptoms of additional harm?**
   1. Damage to Scalenus medius
   2. Injury to suprascapular nerve
   3. Injury to spina accessory nerve
   4. Spread of infection to shoulder joint
2. **All of the following structures pass through superior aperture of thoracic EXCEPT:**
   1. Right recurrent laryngeal nerve
   2. Left CCA
   3. Left sympathetic trunk
   4. Thoracic duct
3. **Venous drainage from neurohypophysis is routed through all of the following EXCEPT?**
   1. Portal vessels to adenohypophysis
   2. Superior hypophyseal veins to ventricular tanycytes
   3. Inferior hypophyseal veins to dural venous sinuses
   4. Capillaries to median eminence and hypothalamus
4. **The floor of the orbit is formed by all the following EXCEPT:**
   1. Orbital plate of the maxilla
   2. Zygomatic bone
   3. Orbital process of the palatine bone
   4. Lacrimal bone
5. **The lining epithelium of auditory tube is**
   1. Simple squamous
   2. Pseudostratified columnar ciliated
   3. Simple columnar ciliated
   4. Stratified squamous nonkeratinized
6. **Which of the following is true about the embryological development?**
   1. Pineal gland develops from mesencephalon
   2. Superior parathyroid develops from 3rd branchial pouch
   3. Maxillary artery is the artery of first branchial arch
   4. Muscles of palate develops from occipital myotome
7. **Anterior part of Jugular foramen contains:**
   1. Inferior petrosal sinus
   2. Vagus nerve
   3. Superior petrosal sinus
   4. Internal jugular vein
8. **All of the following tracts pass through inferior cerebellar peduncle, EXCEPT:**
   1. Ventral spinocerebellar tract
   2. Dorsal spinocerebellar tract
   3. Vestibulocerebellar tract
   4. Olivocerebellar tract
9. **True regarding Golgi apparatus:**
   1. The Golgi apparatus is the processing, packaging and secreting organelle of the cell.
   2. The Golgi apparatus is a system of membranes, made up of flattened sac like structures called cisternae.
   3. It works closely with the endoplasmic reticulum & modifies proteins for export by cell.
   4. All of the above
10. **Recurrent artery of Hubner is a branch of:**
    1. ACA
    2. MCA
    3. PCA
    4. ICA
11. **Structures made up of Dura:**
    1. Tela choroida
    2. Diaphragm sellae
    3. Interclenoid ligament
    4. Habenular commisure
12. **Which of the following thalamic nucleus is concerned with Papez circuit of recent memory?**
    1. VPL
    2. VPM
    3. Pulvinar
    4. Ventral tier
13. **The vertebral artery traverses all of the following EXCEPT:**
    1. Foramen magnum
    2. Subarachnoid space
    3. Intervertebral foramen
    4. Foramen transversarium
14. **Which of the following is an intraarticular tendon?**
    1. Sartorius
    2. Semitendinosus
    3. Anconeus
    4. Biceps
15. **Rotation of mid gut occurs in ___degrees anti-clock wise direction**
    1. 90 2. 180
    3. 270 4. 360
16. **Which of the following is incorrect match?**
    1. Symphysis → Manubriosternal joint
    2. Synchondrosis → Joint between epiphysis and diaphysis of a long bone
    3. Syndesmosis → Inferior tibiofibular joint
    4. Synostosis → Sacroilliac joint
17. **Which of the following is incorrect match?**
    1. Pressure epiphysis → head of femur
    2. Traction epiphysis → Mastoid
    3. Atavistic epiphysis → Os trigonum
    4. Aberrant epiphysis → Coronoid process of scapula

18. Commonest cartilage to ossify?
1. Hyaline
2. Elastic
3. Fibrous
4. Fibroelastic

19. Characteristic features of skeletal muscles:
1. Striations and intercalated discs
2. Striations and hypolemmal nucleus
3. Striations and syncytium
4. Striations and spindle-shaped fibers

20. Lumbar hemivertebra results due to the abnormal development of:
1. Dorsal sclerotome
2. Intermediate cell mass
3. Notocord
4. Ventral sclerotome

21. Vanilloid receptors are activated by:
1. Pain
2. Vibration
3. Touch
4. Pressure

22. Which of following organs secrete zinc in large amount in man?
1. Seminal vesicle
2. Prostate
3. Epididymis
4. Vas

23. In those mammals which are seasonal breeder, the females are receptive only once a year, the cycle is termed as:
1. Follicular
2. Estrous
3. Menstrual
4. Luteal

24. Cushing's Triad includes:
1. Hypertension, Bradycardia and Hypothermia
2. Bradycardia, Hypothermia and Irregular respiration
3. Hypotension, Bradycardia, and Irregular respiration
4. Irregular respiration, Tachycardia and Hypertension

25. Nernst potential of Sodium is:
1. – 60 mV
2. – 90 mV
3. + 60 mV
4. + 45 mV

26. The principle and the most potent estrogen secreted by mature ovary:
1. Estrogen
2. Estriol
3. Estradiol
4. Estrone

27. Anticoagulant not effective in VITRO:
1. Heparin
2. Coumarin
3. EDTA
4. Sodium citrate

28. An oral direct thrombin inhibitor that may replace warfarin for some indications:
1. Agatroban
2. Lepirudin
3. Bivalirudin
4. Ximelagatran

29. Which of the following is not correct regarding Brown adipose tissue?
1. It is rich in mitochondria and cytochromes but has low activity of ATP synthase.
2. Substrate level phosphorylation does not occur in it
3. It is significantly increased in obese individuals.
4. Thermogenin is an uncoupling protein is found in it,

30. Which of the following is not correct regarding mechanoreceptors?
1. Meissner's corpuscles are rapidly adapting receptors responding to stroking & fluttering types of tactile stimuli.
2. Merkel disc receptors are slowly adapting receptors and respond to pressure and texture.
3. Pacinian corpuscles are slowly adapting and respond to proprioception.
4. Ruffini endings are slowly adapting receptors that respond to skin stretch.

31. Normally, ADH secretion ceases when plasma osmolality falls below__.
1. 325 mOsm/kg
2. 275 mOsm/kg
3. 225 mOsm/kg
4. 200 mOsm/kg

32. During which phase of action potential neuron cannot react to additional stimuli (*absolute refractory period*)?
1. Depolarization
2. Hyperpolarization
3. Repolarization
4. All of the above

33. In which phase of cell cycle an important cell cycle control mechanism is activated, which ensures that, everything is ready for DNA synthesis?
1. G1 phase
2. G2 phase
3. S phase
4. G0 phase

34. A cell that after reaching to an end stage of development will no longer divide and go in permanent G0 phase:
1. Neurons
2. Islet cells of Pancreas
3. Epithelial cells
4. All of the above

35. A molecule, which mediates iron absorption from intestine is:
1. Hephaestin, a Peroxidase
2. Hephaestin, a Ferroreductase
3. Hephaestin, a Ferroxidase
4. Hephaestin, a Ferrochelatase

36. Defect in metabolism of Leucine, Isoleucine and valine is found in:
1. Maple Syrup Urine Disease
2. Phenylketonuria
3. Glutaric aciduria
4. Galactosaemia

37. Which of the following is known as "*molecular currency*" of intracellular energy transfer?
1. ATP
2. ADP
3. NADPH
4. AMP

38. In facilitated diffusion of molecules, both the Na+-glucose Symport and Sodium-Ca++ Antiport are examples of:
1. Primary active transport.
2. Secondary active transport.
3. Direct active transport.
4. Passive transport.

39. Condition required for sodium-potassium pump to operate:
1. There must be sodium ion in the cytoplasm
2. There must be ATP available to drive the protein molecular reconfiguration
3. There must be potassium ion for exchange in the extracellular environment.
4. All of the above

40. Which of he following is a metabolite of serotonin?
1. VMA
2. HIAA
3. Metanephrine
4. Histamine

41. Pneumocystis carinii stains positively with:
1. Congo-red.
2. Crystal violet.
3. Methenamine silver.
4. Thioflavin T

42. A 50-year-01d male presented with signs and symptoms constrictive heart disease. A right ventricular endomyocardial biopsy revealed deposition of extracellular eosinophilic hyaline material. On transmission electron microscopy, this material is most likely to reveal the presence of:
1. Non branching filaments of indefinitive length.
2. Cross banded fibres with 67 nm periodicity.
3. Weber Palade bodies.
4. Concentric whorls of lamellar structures.

43. An undifferentiated malignant tumor on immunohistochemical stain shows cytoplasmic positivity of the tumor cells for HMB-45. The most probable diagnosis of the tumor is:
1. Sarcoma.
2. Lymphoma.
3. Carcinoma.
4. Malignant Melanoma.

44. 120. Sections from a solid-cystic unilateral ovarian tumor in a 30-year-old female show a tumor composed of diffuse sheets of cells with doubtful nuclear grooving and scanty cytoplasm. No Call-Exner bodies are seen. The ideal immunohistochemistry panel would include:
1. Vimentin, epithelial membrane antigen, inhibin, CD99.
2. Desmin, S-100 protein, smooth muscle antigen, cytokeratin.
3. Chromogranin, CD 45, CD 99, CD 20.
4. CD 3, chromogranin, CD 45, synaptophysin.

45. A 50 year-old woman presented with a 3-month history of pain in the lower third of the right thigh. There was no local swelling; tenderness was present on deep pressure. Plain X-rays showed an ill-defined intra medullary lesion with blotchy calcification at the lower end of the right femoral diaphysls, possibly enchondroma or chondrosarcoma. Sections showed a cartilaginous tumor. Which of the following histological features (If seen) would be most helpful to differentiate the two tumors?
1. Focal necrosis and lobulation.
2. Tumor permeation between bone trabeculae at periphery.
3. Extensive myxoid change.
4. High cellularity.

46. A 20 years old male presents with complains of swelling and intermittent pain involving middle finger of right hand. X-ray of the hand reveals a well-defined, lobulated, radiolucent lesion localized to the shaft of the middle phalanx of right middle finger, extending minimally into epiphysis. The overlying cortex is thinned by endosteal scalloping. Few ill-defined patchy, radiodensities are also seen in the lesion. Biopsy shows bluish white to gray translucent cartilaginous tissue with whitish yellow granular areas of calcification & little cellularity. Which of the following is most likely diagnosis?
1. Chondrosarcoma
2. Aneurysmal bone cyst.
3. Giant Cell Tumor
4. Enchondroma

47. Most characteristic feature of apoptosis:
1. Cell shrinkage
2. Chromatin condensation
3. Cytoplasmic blebs
4. Apoptotic bodies.

48. Apoptosis occurs in following settings EXCEPT:
1. In burns
2. As homeostatic mechanism to maintain cell population
3. As defense in immune reaction
4. In aging

49. Which of the following is correct?

1. Hypertrophy is an increase in tissue size due to increased cell number
2. Hyperplasia is an increase in tissue size due to an increase in cell size
3. Metaplasia is a change form one abnormal tissue type to another
4. A hamartoma is a developmental abnormality

50. Septic shock is characterized by:

1. Systemic vasodilatation and decreased peripheral vascular resistance
2. Increased myocardial contractility
3. Widespread endothelial injury
4. Activation of coagulation cascade

51. Most common congenital lung malformation:

1. Hypoplasia of lung
2. Congenital cyst
3. Vascular anomalies
4. Lobar sequestration

52. Not true about Multiple myeloma:

1. Results from a polyclonal proliferation of lymph node plasma cells
2. Often presents with back pain or pathological fractures
3. Hypercalcemia develops in 50% of patients
4. Most patients have a serum paraproteinaemia

53. Not true regarding Amyloidosis:

1. Appears as extracellular basophilic hyaline material
2. Show an apple green birefringence in polarised light
3. Is a complication of medullary carcinoma of the thyroid
4. Can occur in Hodgkin's lymphoma

54. Membranous glomerulonephritis is not characterized by which of the following?

1. Most common cause of nephrotic syndrome in adults
2. Associated with Drugs, malignant tumours, SLE & infections.
3. Presents as massive hematuria with non-nephrotic range proteinuria
4. Sub epithelial dense deposits

55. Endothelium Derived Relaxing Factor (EDRF) induced vasodilatation is mediated by:

1. Increased intracellular AMP.
2. Decreased intracellular AMP.
3. Increased intracellular GMP.
4. Decreased intracellular GMP.

56. All of the following are mediators of inflammation EXCEPT:

1. Tumor necrosis factor
2. Interleukin – 1.
3. Myeloperoxidase.
4. Prostaglandins.

57. Stave cells are present in:

1. Lung.
2. Liver
3. Spleen.
4. Thymus.

58. In which of the following types of food poisoning, the mechanism is ingestion and multiplication of the infective organism in the intestine of the host?

1. Staphylococcal food poisoning
2. Salmonella food poisoning
3. Botulism
4. B. cereus food poisoning

59. A 72-year-old male presents to the Emergency department with the chief complaint of shortness of breath that awakens him at night. Further questioning confirms recent dyspnea on exertion. As you pursue the diagnosis of congestive heart failure using the Framingham criteria, you note the findings below. Which of the findings is not considered a major Framingham criterion?

1. Raised JVP
2. S3 gallop
3. Pleural effusion
4. Acute pulmonary edema

60. Which of the following is not an appropriate treatment for Primary Pulmonary Hypertension?

1. Bosentan
2. Treprostinil
3. Sildenafil citrate
4. Heart transplant

61. Nazer prognostic index is for which of the following disease?

1. Cystic fibrosis
2. Wilson's disease
3. Alpha 1 anti-trypsin deficiency
4. Gaucher's disease

62. Best prophylactic treatment for recurrent hemorrhage in a patient with portal hypertension and varices?

1. Propranolol
2. Endoscopic band ligation
3. Combination of endoscopic band ligation and propranolol
4. Portosystemic shunt surgery

63. ST segment elevation is feature of:

1. Hypercalcemia, hyperkalemia, and hypothermia
2. Hypocalcemia, hyperkalemia, and hypothermia
3. Hypocalcemia, hypokalemia, and hyperthermia
4. Hypercalcemia, hypokalemia, and hypothermia

64. Normal oxygen consumption of heart:

1. 80-100 (L/ min/ m2)
2. 110-150 (L/ min/ m2)
3. 160-200 (L/ min/ m2)
4. 170-220 (L/ min/ m2)

65. The most effective treatment for atrial flutter?

1. DC cardioversion
2. Atrial pacing
3. Digitalis
4. Ibutilide

66. Major risk factors for atherosclerosis are all the following EXCEPT:

1. Age > 35 years
2. BP > 140/90 mm Hg

3. HDL cholesterol < 40 mg/dl
4. BMI > 30 kg/m2

67. Absolute contraindications for LOSARTAN are all the following EXCEPT:

1. Gout
2. Pregnancy
3. Bilateral RAS
4. Hyperkalemia

68. Criteria for hospital admission of an adult with Community Acquired Pneumonia is?

1. RR > 48/ min
2. SBP < 90 mm Hg
3. Pleural effusion > 1 cm on lateral decubitus chest X-ray
4. Hypoxemia with PO_2 < 60

69. Smoking is risk factor for all the following EXCEPT:

1. Pulmonary Langerhan's Cell Histiocytosis
2. Good pastures syndrome
3. Alveolar microlithiasis
4. Pulmonary alveolar proteiniosis

70. Extensive accumulation of macrophages in intraalveolar space with minimal interstitial fibrosis is histologic hallmark of:

1. Desquamative Interstitial Pneumonia
2. Lymphocytic Interstitial Pneumonia
3. Respiratory Bronchiolitis
4. Bronchiolitis Obliterans with Organizing Pneumonia

71. Abnormal enhancement of mamillary bodies on T2w MRI is typical of:

1. Central pontine myelinolysis
2. Japanese B encephalitis
3. Wilson's disease
4. Wernicke's encephalopathy

72. Secondary achalasia cardia can be seen with all the following EXCEPT:

1. Eosinophilic gastroenteritis
2. Carcinoma esophagus
3. Eosinophilic gastroenteritis
4. Peptic ulcer disease

73. Second tier therapies for refractory elevated IntraCranial Pressure do not include:

1. Pressor therapy
2. High dose barbiturate therapy
3. Aggressive hyperventilation
4. Hemicraniotomy

74. Which of the following immunosuppressive drug forms trimolecular complex with calcineurin and cyclophilin to block cytokine production and thus immunosuprtession?

1. Cyclosporine
2. Mycophenolate
3. Sirolimus
4. OKT3 antibodies

75. Interstitial nephritis can be caused by all EXCEPT:

1. Cephalosporins
2. NSAID
3. Captopril
4. Rifampicin

76. Irrespective of final osmolarity of urine, fluid that enters the DCT is always:

1. Hypertonic
2. Hyperosmolar
3. Isoosmotic
4. Hypoosmolar

77. Which of the following is known causative agent for focal segmental glomerulosclerosis?

1. NSAIDs
2. Penicillamine
3. Heroine
4. Allopurinol

78. A middle-aged man presents with progressive atrophy and weakness of hands and forearms. On examination, he is found to have slight spasticity of legs, generalized and hyperreflexia. T2 weighted MRI reveals increased signal in the corticospinal tracts. The most likely diagnosis is:

1. Multiple sclerosis
2. Amyotrophic lateral sclerosis
3. Subacute combined degeneration
4. Progressive spinal muscular atrophy

79. Vascular ectasias at gastric antrum are known as:

1. Watermelon stomach
2. Dieulafoy's lesion
3. Mallory Weiss anomaly
4. Sentinel clot

80. Reynold's pentad is feature of:

1. Ascending cholangitis
2. Emphysematous cholecystitis
3. Hemorrhagic pancreatitis
4. Gastric volvulus

81. "Transfer dysphagia" is a characteristic feature of:

1. Schatzki's ring
2. Achalasia cardia
3. Zenker's diverticulum
4. Pharyngeal motor disorders

82. Simple, rapid, noninvasive test for detecting H. pylori and also useful for early follow up:

1. Urea breath test
2. Rapid urease test
3. Stool antigen test
4. Histological staining with Warthin starry stain

83. Which of the following is not a correct statement regarding H. pylori?

1. Gram positive microaerophilic rod found in deep mucous gel.
2. Membrane protein, urease & vacuolating cytotoxin are vital determinants for colonization & pathogenesis.
3. H. pylori infection is virtually always associated with development of chronic gastritis
4. Transfer of infection is from person to person

84. The only FDA approved radioactive antibody that can be used for treatment of NHL:

1. Transtuzumab
2. Ibritumomab
3. Rituximab
4. Imatinib

85. Most common source of metastasis to pericardium:
1. Carcinoma breast
2. Carcinoma bronchus
3. Melanoma
4. Carcinoma colon

86. Normal Pulmonary Capillary Wedge Pressure is:
1. 2-8 mm of Hg
2. 8-12 mm of Hg
3. 12-16 mm of Hg
4. 15-30 mm of Hg

87. Bilateral renal carcinoma can be seen in:
1. Von Hippel Lindau syndrome
2. Bonneville's disease
3. Neurofibromatosis
4. Sturge Weber syndrome

88. Polychronotropism is shown by:
1. Renal cell carcinoma
2. Urothelial tumors
3. Astrocytoma
4. Ependymoma

89. Characteristic aneurysmal dilatation & intramural dissection of intrarenal arteries is seen in:
1. Takayasu's disease
2. Polyarteritis nodosa
3. Systemic lupus erythematosus.
4. Churg-Strauss syndrome.

90. Not a characteristic feature of benign prostatic hypertrophy:
1. Increased trabeculations in bladder
2. Enlargement of lateral lobes of prostate
3. 'J' shaped/ 'fish hook' distal ureters
4. Narrowing of prostatic urethra

91. Which of the following is a wrong match?
1. Hirschsprung disease: Transition zone
2. Sigmoid volvulus: Apex in left iliac fossa
3. Rectosigmoid carcinoma: Acquired megacolon
4. Bowler's hat sign: Colonic polyps

92. Which of the following is best to predict severity of Acute Pancreatitis?
1. Glasgow score
2. APACHE score
3. CT severity score
4. Ranson's criteria

93. Which of the following is incorrect statement regarding GI Bleeding?
1. The sensitivity of angiography for detecting GI Bleeding is about 10-20% less as compared to Nuclear Imaging
2. Angiography can image bleeding at a rate of 0.05-0.1 ml/min or less
3. 99mTc-RBC scan will image bleeding at rates as low as 0.05-0.1ml/min
4. Angiography will detect bleeding only if extravasation is occurring during the injection of contrast.

94. "Kissing Ulcers" are seen in:
1. Lesser curvature of stomach
2. First part of duodenum
3. Gastric antrum
4. Second part of duodenum

95. A 62-years-old retired automobile engineer is brought by his family members to the hospital with history of gradual onset weight loss, loss of appetite and generalized vague bone pains. On examination patient is found to have oral thrush and a bogy swelling in scalp, which is tender to touch. Ultrasound abdomen reveals enlarged both kidneys with smooth outline but effaced corticomedullary differentiation and mild prostatomegaly. Lab studies show Hb of 9 gm %, TLC of 11, 000/cu mm, ESR 105 mm at the end of one hour and BSL of 124 mg%. CXR shows multiple well-defined punched out lytic lesions in the ribs with generalized osteoporosis. X-ray skull reveals similar small well-circumscribed multiple lytic lesions. The most likely diagnosis is:
1. Metastases from carcinoma prostate
2. Multiple myeloma
3. Hodgkin's lymphoma
4. Renal osteodystrophy

96. Which of the following can be used for in-situ ablation of Liver secondaries?
1. Ultrasonic waves
2. Infra red rays
3. Alcohol ablation
4. Acetic acid ablation

97. Which of the following is the most beneficial technique of using chemotherapy with a course of radiotherapy in head & neck malignancies?
1. Neo adjuvant chemotherapy
2. Adjuvant chemotherapy
3. Concurrent chemotherapy
4. Alternating chemotherapy & radiotherapy

98. Which of the following is not an indication of radiotherapy (in pleomorphic adenoma of parotid?
1. Involvement of deep lobe
2. Second histologically benign recurrence
3. Microscopically positive resection margins
4. Malignant transformation

99. Stereotactic radiosurgery can be used for treating:
1. Solitary cerebral metastasis
2. Small meningiomas and Schwannomas
3. Pituitary adenomas
4. All of the above

100. Which of the following is a *Hypoxic cytotoxin*?
1. Tirapazamine
2. Misinidazole
3. Amifostine
4. Buthinione

101. The treatment of choice for chondrosarcoma is:
1. Radical surgical ablation
2. Radiotherapy
3. Chemotherapy
4. Chemoradiation

102. The different effective alternatives of treatment for intracranial AV Malformation include all the following EXCEPT:
1. Conservative therapy
2. Surgical resection
3. Cryosurgery
4. Radiotherapy.

103. Expansile osteolytic metastases are not produced by:

1. Islet cell carcinoma
2. Carcinoid
3. Thyroid carcinoma
4. HCC

104. Which of the following statements regarding treatment of brain metastases is incorrect?

1. Radiation is primary treatment for brain metastases.
2. Whole brain irradiation is usually used.
3. Usually 30-37.5 Gy is administered in 10-15 fractions.
4. Stereotaxic radiosurgery is of benefit in patients with ten or less metastases as on MRI.

105. RF ablation is effective treatment for of all the following EXCEPT:

1. Varicose veins
2. Palliative treatment of HCC
3. Uterine leiomyomas
4. Aberrant conduction tracts in myocardium

106. A 27 years old female patient presents with a small solitary thyroid nodule in right lobe. On ultrasound, the composition of nodule is found to be purely cystic and appearing anechoic. The radionuclide scintigraphy reveals it to be a cold nodule. What should be the line of management for such case?

1. Hemithyroidectomy
2. Ultrasound guided aspiration
3. Radioactive iodine therapy
4. Further evaluation with CECT

107. Investigation of choice for preoperative evaluation of endometrial carcinoma:

1. Hysteroscopy
2. CEMRI
3. HRCT
4. Transvaginal ultrasound

108. A 25-years-old postpartum female presents with history of recurrent episodes of convulsions, sudden onset severe headache, & altered mental status since 2 days after delivery. She is a case of preecclamptic toxemia & the baby was delivered 4 days back by LSCS. On examination, her BP is 170/110 mm Hg, she did not have any focal neurological deficit, but she is confused and irritable. Her CT scan of brain shows patchy low-density lesions predominantly in the white matter of posterior parietal & occipital lobes with generalized cerebral edema. The probable diagnosis is:

1. Acute meningitis
2. Herpetic encephalitis
3. Hypertensive bleed
4. Pregnancy related encephalopathy syndrome

109. A 36-years-old female has been complaining of recurrent headaches since four months. On examination, she has papilledema. MRI of brain showed an extra-axial, dural based and enhancing lesion in frontoparietal region with positive 'dural tail' sign. Which of the following is the most probable diagnosis?

1. Meningioma.
2. Glioma.
3. Schwannoma.
4. Pituitary adenoma.

110. Most common fracture of cervical spine missed on cervical spine radiograph:

1. Ring of atlas
2. Body of axis
3. Odontoid process
4. Burst fracture of body of upper cervical vertebrae

111. Split cord is seen in:

1. Spina bifida aperta
2. Myelodysplasia
3. Caudal regression syndrome
4. Diastematomyelia

112. Bilateral symmetrical Sacroiliitis is hallmark of:

1. Ankylosing spondylitis
2. Juvenile Rheumatoid arthritis
3. Nail Patella syndrome
4. Osteitis condensans ilii

113. The most sensitive and accurate means of detecting changes in avascular necrosis:

1. MRI
2. Spiral CT scan
3. Bone scan
4. Digital radiography

114. Bell Towse operation is a method of surgical treatment for:

1. Old Monteggia fracture
2. Old Galeazi's fracture
3. Comminuted fracture of Olecranon
4. Supracondylar fracture of humerus

115. Anterolateral decompression, a surgical procedure for the treatment of tuberculosis of spine involves removal of all of the following EXCEPT:

1. Vertebral body
2. Lamina
3. Pedicle
4. Transverse process

116. All of the following statements are true about development dysplasia (DDH) of the hip, EXCEPT:

1. It is more common in females
2. Oligohydramnios is associated with a higher risk of DDH
3. The hourglass appearance of the joint capsule may prevent a successful closed reduction.
4. When the ossification center is in the lower medial quadrant, the hip is dislocated

117. The "bare orbit" sign because of the absent or dysplastic sphenoid wing is seen in:

1. Von Hippel Lindau syndrome
2. Neurofibromatosis type 1
3. Neurofibromatosis type 2
4. Sturge Weber syndrome

118. Wormian bones are feature of all EXCEPT:

1. Hypothyroidism
2. Down's syndrome
3. Pyle's disease
4. Osteogenesis imperfecta

119. Number of carpel al bones present at birth:
1. 0 2. 1 3. 2 4. 5

120. "Comma-shaped" soft tissue calcification is seen in infection with:
1. Cysticercus cellulosae 2. armillifer armillatus
3. Guinea worm 4. Loa Loa

121. Percentage of pulmonary emboli that proceed to pulmonary infarction?
1. 0-5% 2. 5-15% 3. 20-30% 4. 30-40%

122. Most common type of Choledochal cyst:
1. type 1 2. type 2 3. type 3 4. type 6

123. The most sensitive and practical technique for detection of myocardial ischemia in the perioperative period is:
1. Magnetic Resonance Spectroscopy.
2. Radio-labeled lactate determination.
3. PET imaging.
4. Regional wall motion abnormality detected with the 2D TEE.

124. Which of the following is not a cardiovascular monitoring technique?
1. Transesophageal echocardiography.
2. Central Venous Pressure monitoring.
3. Pulmonary artery catheterization.
4. Electrical impedance cardiographic technology

125. A 2-years-old child is brought to emergency medical service department with complaints of cough, dyspnea & stridor. On examination, child has tachypnea & tachycardia. Breath sounds are decreased on left side. CXR shows homogenous opaque left hemithorax. The most likely diagnosis is:
1. Spontaneous pneumothorax
2. Massive consolidation
3. Massive pleural effusion
4. Foreign body aspiration

126. Which of the following is the most correct match?
1. Rheumatoid arthritis: Diffuse pulmonary hemorrhage
2. Scleroderma: ' Shrinking lung' syndrome
3. SLE: Lung nodules
4. Wegener's granulomatosis: Cavitating lung lesions
5. Sarcoidosis: Progressive pulmonary fibrosis

127. Which of the following of organs should always be imaged in a suspected case of bronchogenic carcinoma?
1. Adrenals and liver 2. Kidneys and liver
3. Spleen and adrenals 4. Pancreas and liver

128. Bilateral symmetrical hilar adenopathy is hallmark of:
1. Polyarteritis nodosa 2. Bronchogenic carcinoma
3. Sarcoidosis 4. Asbestosis

129. Lower zones are early / commonly affected in:
1. Coal worker's pneumoconiosis
2. Silicosis
3. Sarcoidosis
4. Asbestosis

130. Photonegative pulmonary edema is characteristic of:
1. Hypersensitivity pneumonitis
2. ARDS
3. Lymphangioleomyomatosis
4. Idiopathic pulmonary fibrosis

131. Not true regarding PET imaging:
1. Needs parallel hole high energy lead collimators.
2. Detects 511 KeV annihilation photons in coincidence.
3. Most accurate non-invasive method of detecting and evaluating most cancers.
4. A 'unique tool' to study & quantify physiological & pathological function of tissues & organs.

132. Regarding Mammography, which of the following statements is correct?
1. A baseline study that should be done for all women at the age of 30.
2. It uses less radiation energy than a chest X-ray.
3. Average glandular dose is 4 rads.
4. It provides an effective substitute for biopsy of suspicious lesions.

133. Which of the following drugs is not used topically for treatment of open angle glaucoma?
1. Latanoprost 2. Brimonidine
3. A cetazolamide 4. Dorzolamide

134. Which drug can cause macular toxicity when given intravitreally?
1. Gentamycin 2. Vancomycin
3. Dexamethasone 4. Ceftazidime

135. Which of the following anti-glaucoma medications can cause drowsiness?
1. Latanoprost 2. Timolol
3. Brimonidine 4. Dorzolamide

136. Which of the following medications is contraindicated in patients with allergy to sulphonamides?
1. Levobunolol 2. Bimatoprost
3. Brinzolamide 4. Brimonidine

137. Which is drug of choice for treatment of corneal ulcers caused by filamentous fungi?
1. Itraconazole 2. Natamycin
3. Nystatin 4. Fluconazole

138. The retina receives its blood supply from all EXCEPT:
1. Posterior ciliary artery
2. Central retinal artery
3. Retinal arteries
4. Plexus of Zinn and Haller arteries

139. The average distance of the fovea from the temporal margin of the optic disc:
1. 1 disc diameter 2. 2 disc diameter
3. 3 disc diameter 4. 4 disc diameter

140. Which one of the following stromal dystrophy is a recessive condition?
1. Lattice dystrophy 2. Granular dystrophy
3. Macular dystrophy 4. Fleck dystrophy

141. A patient had seven irregular hyperpigmented macules on the trunk and multiple small hyperpigmented macules in the axillae and groins since childhood. There were no other skin lesions. Which is the most likely investigation to support the diagnosis?

1. Slit lamp examination of eye
2. Measurement of intraocular tension
3. Examination of fundus
4. Retinal artery angiography

142. In which of the following uveitic conditions it is contraindicated to put in an IOL after cataract surgery?

1. Fuch's heterochromatic cyclitis
2. Juvenile rheumatoid arthritis
3. Psoriatic arthritis
4. Reiter's syndrome

143. The most common cause of vitreous hemorrhage in adults is:

1. Retinal hole
2. Trauma
3. Hypertension
4. Diabetes

144. A vitreous aspirate from a case of metastatic endophthalmitis on culture yields Gram positive round to oval cells, 12-14 micron in size. The aspirate on Gram staining shows the presence of pseudohyphae. Which of the following is the most likely etiological agent?

1. Aspergillus
2. Rhizopus
3. Candida
4. Fusarium

145. Which of the following is incorrect about pthisis bulbi?

1. The intraocular pressure is increased
2. Calcification of the lens is common
3. Sclera is thickened
4. Size of the globe is reduced.

146. Which of the following is incorrect about optic nerve glioma?

1. Has a peak incidence in first decade
2. Arises from oligodendrocytes
3. Causes meningeal hyperplasia
4. Is associated with type I Neurofibromatosis

147. Most common cause of ocular morbidity in India is:

1. Cataract
2. Conjunctivitis
3. Refractive error
4. Trachoma

148. SAFE strategy is recommended for the control of?

1. Trachoma
2. Glaucoma
3. Diabetic retinopathy
4. Cataract

149. Under the National Programme for Control of Blindness, who is supposed to conduct the vision screening of school students?

1. School teachers
2. Medical officers of health centers
3. Ophthalmologists
4. Health assistants

150. As per 1986-1989 NPCB survey, what was prevalence of blindness in India (at visual acuity < 6/60 in better eye)?

1. 1.38 %
2. 1.49 %
3. 1.72 %
4. 1.8 %

151. According to the WHO the definition of blindness is:

1. Visual acuity < 6/60 in the better eye with available correction
2. Visual acuity < 3/60 in the better eye with available correction
3. Visual acuity < 6/60 in the better eye with best correction
4. Visual acuity < 3/60 in the better eye with best correction

152. Among the retinal ganglion cells, the fastest signal transmission to the brain and prompt responsiveness for rapid changes in visual image is the function of:

1. W cells
2. Y cells
3. X cells
4. Horizontal cells

153. Organ of corti is situated on:

1. Reissner's membrane
2. Sharpnel's membrane
3. Membrana tectoria
4. Basilar membrane

154. All of the following procedures are used for treatment of allergic rhinitis, EXCEPT:

1. Radiofrequency ablation of the inferior turbinate
2. Laser ablation of the inferior turbinate
3. Submucosal placement of silastic in inferior turbinate
4. Inferior turbinectomy

155. Difference between central and peripheral vertigo:

1. Nystagmus associated with central vertigo is unidirectional
2. Purely horizontal nystagmus without torsional component is common in central vertigo
3. Central is more severe than peripheral vertigo
4. Tinnitus and deafness are often present in central vertigo

156. Endolymphatic hydrops is related to:

1. Ménière's disease
2. Monoaural Diaplacusis
3. Lermoyez Syndrome
4. Otosclerosis

157. Schwartz operation is done in:

1. CSOM
2. Serous otitis media
3. Otosclerosis
4. Acute mastoiditis

158. The segment of facial nerve most commonly involved in CSOM (cholesteatoma)?

1. Tympanic part
2. Mastoid part
3. Intracanalicular part
4. Intracranial part

159. Indications for tracheostomy are all EXCEPT:

1. Acute epiglottitis
2. Maxillofacial trauma
3. Laryngeal malignancy
4. Extensive consolidation of lung

160. All of the following can be part of treatment of inverted papilloma, EXCEPT:

1. Midfacial degloving
2. Endoscopic approach
3. LASER therapy
4. Interferon therapy

161. True statement about FAUCIAL DIPHTHERIA is all Except:

1. Pearly white membrane is formed over tonsils and adjacent parts
2. Bleeding occurs if the membrane is tried to remove
3. The membrane is tenacious
4. Membrane can be removed easily

162. Which of the following statements about congenital Nasolacrimal duct obstruction is correct?

1. Should be treated with long-term antibiotics
2. Probing must be performed as early as possible
3. Probing is usually advised around the age of 12 to 18 months
4. Results of probing are not good

163. Male voice if doesn't break in puberty, it will be known as:

1. Pubophonia
2. Dysphonia plica ventricularis
3. Esophageal voice
4. Mogiphonia

164. Following ovarian tumor is associated with genital abnormality:

1. Theca cell
2. Granulosa cell
3. Dysgerminoma
4. Choriocarcinoma

165. A 32-year-old woman has a 3-year history of oligomenorrhea that has progressed to amenorrhea during past year. She has observed loss of breast fullness, reduced hip measurements, acne, increased body hair, and deepening of her voice. Examination reveals frontal balding, clitoral hypertrophy, and a male escutcheon. Urinary free cortisol and DHEAS are normal. Her plasma testosterone level is 6 ng/mL (normal is 0.2 to 0.8). The most likely diagnosis is:

1. Cushing syndrome
2. Arrhenoblastoma
3. Polycystic ovary syndrome
4. Granulosa-theca cell tumor

166. All of the following tumors metastasize to ovary except:

1. Gastric carcinoma
2. Colonic carcinoma
3. Cervical carcinoma
4. Breast carcinoma

167. Which of the following statements regarding ovarian cancer is correct?

1. A surgical debulking procedure is unhelpful.
2. Nulliparity is a risk factor.
3. Stromal cell and germ cell tumors of the ovary are the most common histologic subtypes.
4. Histologic grade is not an important prognostic factor.

168. Which of the following chemotherapeutic agents is associated with secondary leukemia?

1. Vinblastine.
2. Etoposide.
3. Cisplatin.
4. Bleomycin.

169. Which of the following is anti-androgenic drug?

1. Bicalcutamide
2. Oxymetholone
3. Letrozole
4. Stanozolol

170. Which one of the following is an aromatase inhibitor?

1. Tamoxifen.
2. Letrozole.
3. Danazol.
4. Taxane.

171. Neostigmine antagonizes non-depolarizing blockade by all of the following mechanisms, except:

1. Decreasing the break down of Acetylcholine at the motor end plate.
2. Preventing K efflux from the cell.
3. Increasing the release of Acetylcholine at the motor endplate.
4. Depolarization of the motor endplate.

172. Which of the following anti-HIV drug should never be given as rechallange once history of producing allergic reaction with that drug is known?

1. Lamivudine
2. Abacavir
3. Zidovudine
4. Nelfinavir

173. Regarding Alfimiprase incorrect statement among the following is:

1. It is a novel thrombolytic based on snake venom derived protein.
2. It is a direct fibrinolytic
3. It is a plasminogen activator
4. It is neutralized by alpha macroglobulin.

174. Which of the following is fusion inhibitor?

1. Enfuvirtide
2. Lopinavir
3. Efavirenz
4. Emtricitabine

175. Incorrect about Mifepristone (RU 486):

1. It is a steroid with an affinity for progesterone receptors.
2. Adding pg (Misoprostol) on last day improves the rate of complete abortion.
3. It does not prevent fertilization, but by blocking action of progesterone on endometrium, causing sloughing and shedding of deciduas and brings about abortion.
4. Emptying is complete and surgical evacuation is not needed.

176. Not true regarding Sildenafil citrate

1. Acts by selectively inhibiting phosphodiesterase-5.
2. Causes relaxation of smooth muscle in corpus cavernosum and blood vessels supplying it.
3. Enhances NO action, especially in corpus cavernosum.
4. Decreases penile tumescence during sexual arousal.

177. False regarding Leflunomide

1. It is a immunosuppressive agent
2. It acts by inhibiting de novo Pyrimidine synthesis by inhibiting dihydroorotate dehydrogenase
3. It has an anti-proliferative effect on B cells.
4. It is effective in rheumatoid arthritis and SLE

178. CAMP reaction is shown by which streptococci?

1. Group A
2. Group C
3. Group B
4. Group D

179. Alpha hemolysis is produced:

1. Streptococcus fecalis
3. Streptococcus pneumoniae
2. Streptococcus viridans
4. Streptococcus agalactiae

180. Test for differentiating virulent from non-virulent tubercular bacilli:

1. Aryl sulphatase test
2. Neutral red test
3. Niacin test
4. Catalase peroxidase test

181. In a poultry farm, many chickens developed diarrhea, emaciation and mucopurulent discharge. After about 2 hours the farmer developed fever, chills, headache, and breathlessness. The most likely diagnosis is:

1. Anthrax
2. Relapsing fever
3. Q fever
4. Ornithosis

182. In Trachoma, Halberstaeder-Prowazek bodies can be demonstrated in conjunctival discharge by staining with:

1. Gram stain
2. Carbol fuchsin
3. Giemsa stain
4. Fontana stain

183. Stains used for demonstration of Capsular material of Cryptococcus neoformans is:

1. Alcian blue
2. Mucicarmine stain
3. India ink preparation
4. All of the above

184. True regarding Timolol:

1. It is selective b blocker
2. It has additional local anaesthetic action
3. It has intrinsic sympathomimetic activity.
4. The ocular hypotensive action produced by it is smooth and well sustained.

185. Strain used for chickenpox vaccine:

1. Edmonston Zagreb strain
2. 'Danish' 131
3. Oka strain
4. RA 27/3 strain

186. True regarding Loa loa

1. Microfilariae live in subcutaneous tissues.
2. Adult parasites circulate in blood with a diurnal periodicity that peaks between 12.00Noon and 2.00Pm.
3. Manifested by evanescent localized areas of angioedema and erythema developing on the extremities
4. Albendazole is treatment of choice.

187. Function of IgA:

1. Acts as mucosal barrier for infection
3. Kills virus infected cells
2. Activates macrophages
4. Causes delayed hypersensitivity reaction.

188. The following are true for T lymphocytes EXCEPT:

1. Constitute 70-80% of circulating pool of lymphocytes
2. Release macrophage activator factor
3. Secrete specific antibodies
4. Release lymphotoxin

189. According to the Biomedical Waste Rules (1998), for the hospital waste products disposed by incineration, the temperature of primary chamber of incineration should be:

1. 600 +/- 50^{0}C
2. 1000 +/- 50^{0}C
3. 800 +/- 50^{0}C
4. 1200 +/- 50^{0}C

190. Savlon contains:

1. Cetavlon + Hibitane
2. Hibitane + Chlorhexenol
3. Cetavlin + Chlorhexidine
4. Cetavlon + Chlorhexenol

191. Not true about Lymphokines:

1. Interleukin 2 (IL-2) is a T-cell growth factor
2. The action of lymphokines is not antigen specific
3. All CD4+ T-cells do not produce the same Lymphokines
4. Colony stimulating factors (CSF) stimulate bacterial growth

192. A diabetic patient developed cellulitis due to Staphylococcus aureus, which was found to be Methicillin resistant on the antibiotic sensitivity testing. All the following antibiotics will be appropriate EXCEPT:

1. Quinepristin
2. Imipenem
3. Teichoplanin
4. Linezolid

193. A 19-year-old male has a history of athlete's foot but is otherwise healthy when he develops the sudden onset of fever and pain in the right foot and leg. On physical exam, the foot and leg are fiery red with a well-defined indurated margin that appears to be rapidly advancing. There is tender inguinal lymphadenopathy. The most likely organism to cause this infection is:

1. Staphylococcus epidermidis
2. Streptococcus pyogenes
3. Streptococus fecalis
4. Tinea pedis

194. A 40-years-old patient admitted to an ICU is on central venous line for the last one week. He is on ceftazidime and amikacin. After 7 days of antibiotics, he develops a spike of fever and his blood culture is positive for gram-positive cocci in chains, which are catalase negative. Following this, vancomycin was started but the culture remained positive for same organism even after 2 weeks of therapy. The most likely organism causing infection is:

1. Staphylococcus aureus.
2. Viridans streptococci.
3. Enterococcus faecalis.
4. Coagulase negative Staphylococcus.

195. What are the clinical consequences of Bacillus anthracis endospores coming in contact with abrasion on arm?

1. The endospores germinate in the skin, gain access to the blood, and cause death due to massive sepsis.
2. The endospores germinate in the skin, gain access to the lymphatic system, and cause significant axillary lymphadenopathy.
3. The endospores germinate in the skin, gain access to the blood, and cause fatal pneumonia.
4. The endospores are engulfed by dermal macrophages and are transported by them to the blood, at which point they germinate; the ensuing bacterial proliferation causes death due to massive sepsis.

196. Which of following enzymatic preparation is produced from *Clost histolyticum* by process of fermentation?

1. Streptodornase
2. Collagenase
3. Streptokinase
4. Altepase

197. Curved gram-negative rod frequently associated with outbreaks of diarrhea and with a history of animal contact. Most likely organism is:

1. Campylobacter jejuni
2. E. coli
3. Shigella
4. Salmonella

198. Milk ring test is for:

1. Brucellosis
2. TB
3. Bacteroides
4. Salmonellosis

199. A young boy had a flea bite while working in a wheat grain godown. After 5 days he developed fever and had axillary lymphadenopathy. A smear was sent to the laboratory to perform a specific staining. Which one of the following staining method would help in the identification of the suspected pathogen:

1. Albert staining
2. Mc Fadyean's staining
3. Zeihl-Neelson staining
4. Wayson staining

200. Cough plate method is used to identify:

1. Y. Pestis
2. B. Pertusis
3. Mycoplasma
4. M.Tb

201. Generation time of tuberculous bacillus is:

1. 20 days
2. 20 min
3. 20 hours
4. 4 weeks

202. An army officer posted in a remote forest area had fever and headache. His fever was 104ºF and pulse was 70/min. He had an erythematous lesion of about 1 cm on the leg surrounded by small vesicles, along with generalized lymph adenopathy at the time of presentation to the referral hospital. His blood sample was collected to perform serology for the diagnosis of Rickettsial disease. Which one of the following results in Weil-Felix reaction will be diagnostic in this clinical setting?

1. High OX-2
2. High OX-K
3. High OX-19
4. High OX-19 and OX-2

203. A 45-year-old man has excessive fatigue. He gives a history of being treated successfully for testicular cancer 10 years earlier. The physical examination is unremarkable. Routine blood tests reveal a normal complete blood count, normal creatinine, normal -fetoprotein, and normal -human chorionic gonadotropin, but his hepatic transaminases are each three times the upper limit of normal. Knowing that the patient had received blood transfusional therapy while receiving cancer chemotherapy, the physician orders serologic studies for hepatitis viruses, which reveals evidence of having had a prior infection with hepatitis C virus (HCV). The next appropriate diagnostic or therapeutic strategy would be:

1. Detection of HCV RNA by polymerase chain reaction (PCR) analysis
2. Liver biopsy
3. Begin interferon (IFN) therapy
4. Repeat the serologic test for hepatitis C virus

204. All the following are true about HIV EXCEPT:

1. It is a DNA virus belonging to Lentiviridae
2. Attacks CD4 lymphocytes
3. Reversal of CD4:CD8 ratio
4. Mostly spreads by heterosexual contact

205. Some amount (variable degree) of pancreatic fat necrosis occurs due to exposure to:

1. Extremely high temperature
2. Extremely low temperature
3. Traumatic injury
4. Burns

206. Railway spine refers to one of the following types of injury to the spinal cord:

1. Contusion
2. Laceration.
3. Concussion.
4. Transection.

207. In typical hanging, the position of the knot on the neck is:

1. At the nape of the neck.
2. Under the chin.
3. Anywhere other than the back of neck.
4. Just beneath the angle of jaw.

208. The first permanent tooth to erupt is the:

1. Canine.
2. Lateral incisor.
3. First molar.
4. Central Incisor.

209. Statutory rape, is rape on a girl below:

1. 10 years.
2. 12 years.
3. 15 years.
4. 16 years.

210. The irresistible desire to steal articles is known as:

1. Kleptomania.
2. Dipsomania.
3. Pyromania.
4. Mutilomania.

211. When the broader surface of skin comes in contact with the uneven rough object it produces:

1. Scratches
2. Grazes
3. Impact Abrasions
4. Pressure Abrasions

212. Wrong regarding postmortem lividity:

1. Typically, lividity has a pinkish colouration.
2. In deaths from carbon monoxide poisoning, it is classically described as "cherry red"
3. In potassium chlorate, nitrates, and aniline poisoning it appears chocolate brown
4. In deaths from exposure to cold, it is bright pink
5. Cyanide poisoning results in lividity which is described as pink, bright scarlet, and violet.

213. The *most useful single indicator* of the time of death during the first 24 hours post mortem:

1. Algor mortis
2. Rigor mortis
3. Livor mortis
4. Adipocere formation

214. The presence of adipocere indicates that the post mortem interval is:

1. At least days and probably several weeks
2. At least weeks and probably several months
3. At least months and probably several years
4. At least years and probably several decades

215. Typically, the first visible sign of putrefaction is a greenish discolouration of the skin of the anterior abdominal wall. This most commonly begins in the:

1. Right iliac fossa
2. Left iliac fossa
3. Periumbilcal region
4. Epigastrium

216. 'Crocodile flash' burns are seen in:

1. Frostbite
2. High voltage electrical burns
3. Chemical burns
4. Lightening

217. Chronic cocaine use result in

1. Paranoia
2. Formication
3. Myoglobinuria and renal failure.
4. Peripheral neuropathy

218. Characteristic Features of Poisonous Snakes include all except:

1. Fangs – Present
2. Pupils - Elliptical pupil
3. Anal Plate - Single row of plates
4. Bite Mark - Row of small teeth

219. Which of the following applies to a situation where a plaintiff claimant has, through their own negligence, caused the injury they suffered:

1. Contributory negligence
2. Comparative negligence
3. Criminal negligence
4. Corporate manslaughter

220. When strangulation is effected by compressing the victim's neck against forearm:

1. Throttling
2. Mugging
3. Garroting
4. Bansdola

221. Which of the following consists of life expectancy at birth and adjustment of time spent in poor health?

1. Health Adjusted Life Years
2. Disability Adjusted Life Years
3. Human Development Index
4. Kupuswamy index

222. Median incubation period means:

1. The time required for 50% of the cases to occur following exposure.
2. Time gap between onset of primary and secondary case
3. Interval between first clinical detection and final critical point
4. Time betwn exposure to risk factor & subsequent development of clinical manifestations of particular disease

223. Change in the affective level after communication and health education means change in:

1. Knowledge
2. Attitude
3. Skills
4. All

224. Not a Salient feature of population growth in the world:

1. About 55% of population growth is occurring in developing countries
2. UNFPA estimates that world population is likely to reach 10 billion by year 2050.
3. Expected number of births/women is 1.7 for developed, 3for developing and 5.2 for underdeveloped countries.
4. World's population is growing at the rate of 176/min, 10564/hour, 253452/day & 92543000/ year.

225. Part II of the 'death certificate' deals with:

1. Immediate cause and the direct underlying cause which started the whole trend of events leading to death
2. Any significant associated diseases that contributed to the death but did not directly lead to it.
3. Approximate interval between onset and cause of death.
4. The mode of death

226. Regarding the factories act, incorrect is:

1. The Act applies to the whole of India except the State of Jammu and Kashmir.
2. A minimum of **500 Cu ft** of space has been prescribed.
3. Employment of children below the age of **14 years** should be prohibited
4. Total numbers of hours of work should not exceed **40 hours per week**.

227. A "problem village" has been defined as:

1. One where no source of safe water is available within a distance of 0.6 km, or where water is available at depth of more than 10 meters, or water source has excess salinity, iron, fluorides and other toxic elements or where water is exposed to the risk of cholera.
2. One where no source of safe water is available within a distance of 1.0 km, or where water is available at depth of more than 25 meters, or water source has excess salinity, iron, fluorides and other toxic elements or where water is exposed to the risk of cholera
3. One where no source of safe water is available within a distance of 1.6 km, or where water is available at depth of more than 15 meters, or water source has excess salinity, iron, fluorides and other toxic elements or where water is exposed to the risk of cholera
4. One where no source of safe water is available within a distance of 2.6 km, or where water is available at depth of more than 5 meters, or water source has excess salinity, iron, fluorides and other toxic elements or where water is exposed to the risk of cholera

228. Standardization of food by the directorate of marketing and inspection of government of India is known as:

1. PFA standards
2. Codex Alimentarius
3. AGMARK standard
4. Bureau of India standards

229. Mosquitoes whose larvae lie horizontal on water and thus rest parallel to surface of water:

1. Aedes
2. Anopheles
3. Culex
4. Mansonides

230. UNDP works as:

1. The main source of funds for technical assistance
2. The main source of funds for child health
3. The Source of funds for research and development
4. Education source for developing countries

231. Global fertility rate is _____ at present.

1. 1.8
2. 2.8
3. 3.8
4. 4.8

232. The epidemic which took place in 1854 in the Golden square district of London was due to the common water pump in Broad street was investigated as a source of infection of Cholera epidemic by:

1. Louis Pasture
2. Robert Frost
3. John Snow
4. Parkin

233. In Kwashiorkor, the letter 'K' is post-fixed to indicate:
1. Edema
2. Skin changes
3. Weight for height
4. Muscle wasting

234. Developmental events dependent on the production of maternal or fetal glucocorticoid, EXCEPT:
1. Induction of thymic involution
2. Production of surfactant by type II alveolar cells
3. Functional thyroid
4. Functional hypothalamopituitary axis

235. Late onset Hemorrhagic disease of newborn is characterized by all the following EXCEPT:
1. Usually occurs in cow milk fed babies
2. Onset occurs at 4-12 weeks of age
3. Intracranial hemorrhage can occur
4. Intramuscular vitamin K prophylaxis at birth has a protective role

236. Which of the following malformation in a newborn is specific for maternal IDDM?
1. TGA
2. Caudal regression
3. Holoprosencephaly
4. Meningomyelocele

237. All of the following are the complications in the new born of a diabetic mother except:
1. Hyper bilirubinemia.
2. Hyperglycemia.
3. Hypocalcemia.
4. Hypomagnesemia.

238. All of the following are features of prematurity in a neonate EXCEPT:
1. No creases on sole
2. Abundant lanugo
3. Thick ear cartilage
4. Empty scrotum

239. The following are characteristic of autism EXCEPT:
1. Onset after 6 years of age
2. Repetitive behavior
3. Delayed language development
4. Severe deficit in social interaction

240. Brain abscess in cyanotic heart disease is commonly located in:
1. Cerebellar hemisphere
2. Thalamus
3. Temporal lobe
4. Parietal lobe

241. The prognosis of rhabdomyosarcoma is likely to be poor if the site of tumor is:
1. Orbit
2. Paratesticular
3. Extremity
4. Urinary bladder

242. Vaginal pH of new born is:
1. 7
2. 6
3. 5
4. 4

243. Neonatal seizures are most commonly associated with the deficiency of:
1. Thiamine
2. Folic acid
3. Pyridoxine
4. Cyanocobalamin

244. Level of lactose in human milk:
1. 1.1 gm/L
2. 3.4 gm/L
3. 4.6 gm/L
4. 7.1 gm/L

245. The genes responsible for alpha thalassemia are located on which chromosome?
1. Chromosome 7
2. Chromosome 11
3. Chromosome 16
4. Chromosome 18

246. Thiamine deficiency is known to occur in all of the following EXCEPT:
1. Food Faddist
2. Homocystinemia
3. Chronic alcoholic
4. Chronic heart failure patient on diuretics

247. Total blood volume increased during pregnancy is about:
1. 10%
2. 20%
3. 30%
4. 60%

248. Total blood volume increased during pregnancy is about:
1. 10%
2. 20%
3. 30%
4. 60%

249. Foetal Hemoglobin (HbF) EXCEPT
1. Adult Hb appears at 24-30th weeks of gestation.
2. It has greater affinity for O2 due to lower binding of 2,3DPG compared to adult Hb.
3. It is also resistant to acid.
4. Life span of fetal RBCs is 2/3rd of adult i.e. 80 days.

250. Which of the following includes the classical triad of ' enlarged upper part of uterus, soft lower part of body and firm cervix ' during early pregnancy?
1. Hegar's sign
2. Jacquemier's sign
3. Osiander's sign
4. Goodell's sign

251. Which of the following presentation has most UNFAVOURABLE outcome?
1. Breech
2. Face
3. Brow presentation
4. Occipitoposterior

252. Diagonal conjugate is:
1. Distance between upper border of symphysis and sacral promontory
2. Lower border of symphysis and sacral promontory
3. Lower border of symphysis and 3rd piece of sacrum
4. Lower border of symphysis and tip of sacrum

253. Quadruple test for Down's syndrome include:
1. AFP, uE3, free beta-HCG and Inhibin-A at 14-20 weeks gestation
2. AFP, uE3, free beta-HCG and CEA at 14-20 weeks gestation
3. AFP, uE3, free beta-HCG and Progesterone at 14-20 weeks gestation
4. AFP, uE3, free beta-HCG and PPAP at 14-20 weeks gestation

254. Cervical ripening is mainly due to action of:

1. PGE2 2. PGF2 3. PGI2 4. PGG2

255. The patient with pre-eclampsia diagnosed remote from term, which of the following is NOT necessarily an indication for expeditious delivery?

1. Blood Pressure 170/115 on medication
2. Proteinuria 5 g. per 24 hours
3. Platelet count 80,000/ul.
4. Serum transaminase levels three times normal

256. Commonest cause of ectopic gestation:

1. Previous salpingitis 2. Dysfunction of cilia
3. Uterine abnormalities 4. Delayed fertilization of ovum

257. Third generation oral contraceptive pills containing norgestrel and gestodene along with estrogens:

1. Are more lipid friendly
2. Decrease the risk of venous thromboembolism
3. Increase the risk of break through bleeding
4. Are not used for emergency contraception

258. At what period does tuberculosis flare up most commonly in a pregnant patient?

1. First trimester 2. Second trimester
3. Third trimester 4. Puerperium

259. For the treatment of urinary tract infection during first trimester of pregnancy, best drug is:

1. Nitrofurantoin 2. Cephalosporins
3. Aminoglycosides 4. Cotrimoxazole

260. Which of the following is true about transmission of HIV infection in neonates from infected mother?

1. Breast-feeding is almost absolutely safe
2. Vaginal delivery is the most common and most effective mode of transmission
3. Chances of perinatal transmission is 75% in a established HIV mother
4. With proper precautions, the rate of transmission in delivery by caesarean section is 0%

261. Which of the following methods is commonly employed in delivery of after coming head in breech presentation:

1. Burn - Marshall Method
2. Forceps delivery
3. Mavriceav snellie - viet method
4. Pinards nanoeuvre

262. Definition of PPH is blood loss of:

1. 500ml 2. 750 ml 3. 1000 ml 4. 1050 ml

263. Best drug for the control of postpartum hemorrhage:

1. Methargin 2. Ergometrine
3. Oxytocin 4. Misoprostol

264. Which is not true of placenta accreta:

1. May penetrate serosa
2. Invades myometrium
3. Absence of Nitabuch membrane
4. More common in primigravida

265. Essential obstetric care includes the following, EXCEPT:

1. Early registration of pregnancy
2. Provision of safe delivery
3. 24-hours delivery services at primary health centers (PHCs)
4. Provision of minimum three antenatal check-ups

266. The denominator in Maternal Mortality Rate is:

1. Total number of pregnancies in same area and year.
2. Total number of females in the child-bearing age in the same area and year.
3. Total number of live births in the same area and year
4. Total number of married females in the same area and year.

267. Not true regarding changes in fetal circulation at birth:

1. Functional closure of the umbilical arteries occurs within a few minutes of birth.
2. The umbilical vein forms the Ligamentum teres hepatis.
3. Hypoxia can cause ductus arteriosus to become patent.
4. Prostaglandin F, low calcium, low glucose and high pulmonary pressure keep ductus arteriosus closed.

268. A 7-year-old girl is referred for evaluation of vaginal bleeding for 2 months. The mother says that she has not been exposed to exogenous estrogens. Physical examination reveals height at the 98th percentile, Tanner stage III breast development, and no axillary or pubic hair. No abdominal or pelvic masses are palpated. Neurologic examination is normal. Radiographic and laboratory evaluations reveal the following:

- **1· Brain MRI: normal pituitary and hypothalamus**
- **Bone age: 10 years**
- **Urinary 17-ketosteroids: 1.7 mol (0.5 mg)/g creatinine per 24 h**
- **Urinary gonadotropins: undetectable**

The appropriate next step in the management of this girl would be

1. Abdominal CT scanning and/or pelvic sonography
2. Plasma androstenedione level
3. Exploratory laparotomy
4. Karyotype analysis

269. Menopause is defined as cessation of menstruation for:

1. 3 consecutive months 2. 6 consecutive months
3. 9 consecutive months 4. 12 consecutive months

270. A 35 year old woman was referred to the gynecology out patient department with the complaints of vaginal irritation, greenish yellow discharge, and intense pruritis of recent origin. Physical examination was normal but for diffuse vaginal erythema. Microscopic examination of the discharge revealed motile organisms with flagella. One of the following statements is false regarding this case:

1. It is a sexually transmitted disease.
2. Oral metronidazole is the treatment of choice.
3. Vaginal pH is usually less than 2.5.
4. Even sexual partner needs treatment.

271. A 40 years old woman presented to the gynecologist with complaints of profuse vaginal discharge. There was no

discharge from the cervical os on the per speculum examination. The diagnosis of bacterial vaginosis was made based upon all of the following findings on microscopy EXCEPT:

1. Abundance of gram variable coccobacilli
2. Absence of Lactobacilli
3. Abundance of polymorphs
4. Presence of clue cells

272. Indications for epidural analgesia may include all EXCEPT:

1. Maternal request for painless labour
2. Twin pregnancy
3. Pregnancy induced hypertension
4. Active maternal hemorrhage

273. Which of the following is not a sign of stellate ganglion block?

1. Meiosis
2. Exopthalmus
3. Nasal congestion
4. Conjunctival redness

274. Which one of the local anaesthetics belongs to the ester group?

1. Procaine
2. Bupivacaine
3. Lignocaine
4. Mepivacaine

275. Which of the following is not true about Etomidate?

1. It is an intravenous anesthetic
2. It precipitates coronary insufficiency
3. It inhibits cortisol synthesis
4. It causes pain at the injection site

276. Which of the following inhalational anesthetic agents is the induction agent of choice in children?

1. Methoxyflurane
2. Sevoflurane
3. Desflurane
4. Isoflurane

277. A two month old infant has undergone a major surgical procedure. Regarding post-operative pain relief which one of the following is recommended:

1. No medication needed, as infant do'nt feel pain after surgery due to immaturity of nervous system
2. Only Paracetamol suppository is adequate
3. Spinal narcotics via intrathecal route
4. Intravenous narcotic infusion in lower dosage

278. A 5 year old patient is scheduled for tonsillectomy. On the day of surgery he had running nose, temperature 37.5°C and dry cough. Which should be the most appropriate decision for surgery?

1. Surgery should be cancelled
2. Can proceed for surgery if chest is clear and there is no history of asthma
3. Should get X-ray chest before proceeding for surgery
4. Cancel surgery for 3 week and start patient to be on antibiotic

279. Which of the following inhalational agents has the minimum blood gas solubility co-efficient?

1. Isoflurane.
2. Sevoflurane.
3. Desflurane.
4. Nitrous oxide.

280. The following anaesthetic drug causes pain on intravenous administration:

1. Midazolam.
2. Propofol.
3. Ketamine.
4. Thiopentone sodium.

281. Which of the following fluorinated anaesthetics corrodes metal in vaporizers and breathing systems?

1. Sevoflurane.
2. Enflurane.
3. Isoflurane.
4. Halothane.

282. Proteins are linear polymers of amino acids. They fold into compact structures. Sometimes, these folded structures associate to form homo- or hetero- dimmers. Which one of refers to associated form?

1. Denatured state
2. Molecular aggregation
3. Precipitation
4. Quaternary structure

283. Regarding the replication of DNA, which one of the following function of enzyme is incorrect?

1. DNA polymerase-I has a proof reading activity, which is also known as 3' —> exonuclease activity.
2. DNA Helicase allows for processive unwinding of DNA.
3. DNA topoisomerases are the necking-resealing enzymes
4. DNA ligase seals the single strand nick between the nascent chain and Okazaki fragments on the lagging strand

284. Base substitution mutations include all the following EXCEPT:

1. Null mutation
2. Silent mutation
3. Missense mutation
4. Frameshift mutation

285. There are more than 800 variants of human hemoglobin gene. Among these only a few are fatal. Hence the most important factor to be conserved in a protein for its function is the:

1. Amino acid sequence
2. Ligand binding residues
3. Structure
4. Environment

286. Heterchromatin is the region of DNA that is relatively:

1. Uncondensed
2. Condensed
3. Overcondensed
4. Partially condensed

287. A part from Escherichia coli, the other most common organism implicated in acute suppurative bacterial peritonitis is:

1. Bacteroids
2. Klebsiella
3. Peptostreptococcus
4. Pseudomonas

288. Most commonly used tendon for tendon transfer:

1. Plantaris
2. Palmaris longus
3. Extensor Digitorum
4. Flexor carpi radialis

289. The following statement is not true of wound infections:

1. Staphylococcus aureus is the most common organism to infect the surgical wound
2. MRSA wound infection is usually the result of wound contamination by hospital staff
3. Anaerobic organisms exert their lethal effects by producing endo- and exotoxins
4. Necrotizing fasciitis is commoner in carrier of MRSA

290. True statements concerning necrotizing fasciitis are correct:

1. Antibiotic therapy and hyperbaric oxygen do not limit the spread
2. There is a severe infective process, but the skin initially appears normal
3. Extensive excision of the necrotic fascia and skin and muscle should be carried out within 24 hours
4. It is not common after minor trauma
5. High doses benzylpenicillin (4 mega units) given intravenously are indicated

291. A 34-year-old white woman is treated for a UTI with amoxicillin. Initially she improves, but 5 days after beginning treatment, she develops recurrent fever, abdominal bloating, and diarrhea with six to eight loose stools per day. The best diagnostic test for this patient will be:

1. Identification of Clostridium difficile toxin in the stool
2. Isolation of C. difficile in a stool culture
3. Stool positive for white blood cells
4. Detection of IgG antibodies against C. difficile in the serum

292. Surgically used suture material Polydioxone (PDS):

1. Is non absorbable and remains encapsulated
2. Undergoes hydrolysis and complete absorption
3. Undergoes phagocytosis and enzymatic degradation
4. Is specifically used for heart valves or synthetic grafts

293. Major complications of massive blood transfusion include:

1. Metabolic alkalosis, Hypocalcaemia, Hypernatremia, Hypokalaemia
2. Metabolic acidosis, Hypocalcaemia, Hypomagnesaemia, Hyperkalaemia
3. Metabolic acidosis, Hypercalcaemia, Hypernatremia, Hypokalaemia
4. Metabolic alkalosis, Hypocalcaemia, Hypernatremia, Hyperkalaemia

294. A 64 years old previously healthy man is admitted to a hospital because of a closed head injury and ruptured spleen following a roadside accident following an automobile accident. During the first 4 days of hospitalization, following Laparotomy and Splenectomy, he receives 5% dextrose 0.5% normal saline solution at a rate of 125 ml h. Recorded daily fluid outputs include 450 to 600 ml of nasogastric drainage and 700 to 1000 ml of urine. The patient is somnolent but easily aroused until the morning of the 5th hospital day, when he is noted to be is deep coma) By the after noon he begins having seizures. The following laboratory data are obtained:

Serum electrolytes (meq L): Na^+ 130; K^+ 1.9; Cl^- 96, HCO_3^-; 19.

Serum osmolality: 260 mOsm L;

Urine electrolytes (meq L); Na^+ 61; K^+ 18

Which of the following statements about diagnosis or treatment of this patient's condition is true:

1. Emergency carotid arteriogram to be done
2. Secondary to metabolic acidosis there is hypokalemia
3. A small quantity of hypertonic saline to be given
4. IV infusion of 20 ml of 50% $MgSO_4$ given for 4 hours

295. Type-I lymphedema means:

1. Nonpitting edema up to ankle
2. Pitting edema up to ankle
3. Edema decreasing after overnight rest
4. Pitting edema up to the knees

296. Dacron vascular graft is:

1. Nontextile synthetic
2. Textile synthetic
3. Nontextile biologic
4. Textile biologic

297. A 75-year-old female is brought to the emergency department because of increasing obtundation. She is found to communicate poorly. Brief physical examination reveals diminished skin turgor. Blood pressure is 100/60, pulse 120, respiratory rate 20, and temperature 37°C (98.6°F).

Blood tests reveal the following serum electrolytes:

Sodium 160 mmol/L, Potassium 5.0 mmol/L, Bicarbonate 30 mmol/L, Chloride 110 mmol/L.

The most appropriate management at this time would include administration of:

1. 5% dextrose in normal saline, 100 mL/h
2. 0.5% normal saline, 100 mL/h
3. 5% dextrose in 0.5% normal saline, 200 mL/h
4. 5% dextrose in water, 150 mL/h

298. Regarding cardiovascular disease in the surgical patient, which of the following is not true:

1. Following a myocardial infarct elective surgery should be deferred for over 6 months
2. 60% of post-operative re-infarctions are clinically silent
3. The mortality of a post-operative myocardial infarct is about 40%
4. Transesophageal echocardiography is not useful for assessing the risk of perioperative myocardial ischemia

299. A 59-year-old woman, has a left femoral venous thrombosis during a pregnancy 30 year ago. The left greater saphenous vein had been stripped at age 21. She now presents with a large non-healing ulceration over the medial left calf, which has continuously progressed despite bed rest, elevation, and use of a support stocking. Descending phlebography of the left leg demonstrates a patent deep venous system, with free flow of dye from the groin to foot. The first profunda femoris valve is competent. Appropriate management might include which of the following:

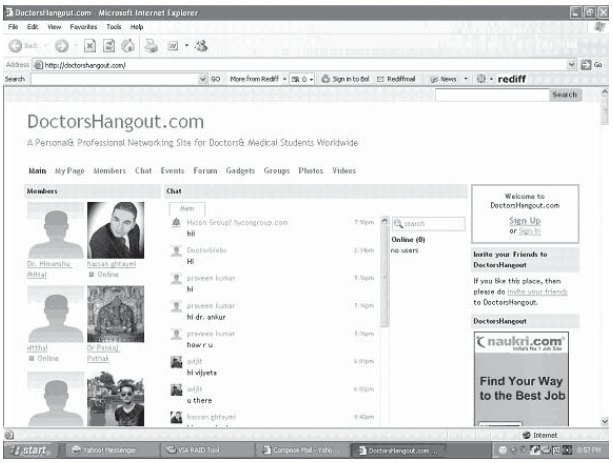
1. Division of the superficial femoral vein in the groin and transposition of its distal end into the profunda femoris vein below the level of the competent profunda valve
2. Saphenous venous crossover graft with anastomosis of the end of the right saphenous vein into the side of competent femoral vein
3. Ligated iliofemoral venous thrombectomy with creation of the temporary arteriovenous fistula
4. Subfascial ligation of perforating veins in the left calf

300. Nesbitt's Operation is done for:

1. Fournier's disease
2. Epididymal cyst
3. Peyronie's disease
4. Spermatocele

(Answer key for All India Model paper is on **Page No. 45**)

Webwatch



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- Add some gadgets to your personal page
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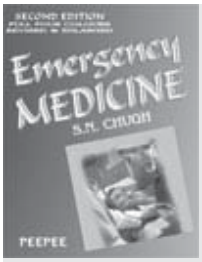
BOOK REVIEW



Title	Emergency Medicine
Author	SN Chugh
Publisher	Peepee Publishers and Distributors
ISBN	81-88867-79-9
Price	Rs 375
Type of Book	Text Book
Exams covered	Clinical Practise

Intended for

House Surgeons (CRRI / Interns)

Post Graduates

Practising Clinicians

ICU

Impressed with

1. A diagram at the first page of every chapter that sums up the differential diagnosis
2. Pathogenesis of the conditions are discussed
3. Treatment elucidated
4. Tables, Flow charts and Diagrams

Review

The main attribute that a doctor needs is the skill in managing emergencies. Every one knows that fever can be supressed by "Calpol" and a small wound healed by "Nebasulf" and our Indian population is well known for the favour they show to the over-the-counter prescriptions and a doctor is not usually consulted for these seemingly trivial aspects

Another competition General Practitioners face is from the quacks. and the paramedical who practice illegally (not to mention the magic remedies more rampant than you can imagine in rural India, even after almost 6 decades of Independence)

This is easier said than done. A junior doctor finds it extremely hard (especially if he has not concentrated on his Internship, but solved MCQs at that time) to manage emergencies for the simple fact that they are not taught so in their undergraduate time. The Indian MBBS undergraduate spends his time learning cases (mitral regurgitaion and Ca Stomach) which he is not going to treat alone.

Compounding this problem is that Textbooks dealing with emergencies are few and the western books are grossly inadequate in this regard. Those books deal do not pay attention to common indian problems. Even for the few conditions covered there, the management schedule prescribed is for their conditions and can be hardly followed in our setup.

The book Emergency Medicine written by Dr.SN Chugh and published by Peepee Publishers is a book tailor made for India and the book is divided into the 11 units and 95 Chapters.

A chapter typically begins with a diagram than schematically depicts the various etiologies for that conditions. For example the chapter on Hemoptysis has a diagram that shows TB, Bronchogenic Carcinoma, Pulmonary Infarction, Mitral Stenosis, Acute Pulmonary Edema, Bronchectasis etc. Then the Related History, Signs and Investigations are dealth with in detail followed by the management.

Then we have the definitions and common causes and the associated symptoms of the various etiologies, which help one get to the diagnosis in a flash. This chapter is followed by chapters each dealing with the individual causes.

Highlights

Almost any emergency that a doctor can come across is dealt with detail and the Explanation of the Pathophysiology helps in better understanding of the conditions. If you have to work in Casualty / ICU or if you are at a peripheral hospital where you have to manage emergencies by your own, this is an ideal book for you. A book best suited to be kept in the doctor's table.

Reviewed by

Dr Bruno

The Genesis, Growth and Development of GUNTUR MEDICAL COLLEGE

Dr K Vasudeva Rao, MD

Education, without doubt, is an instrument of social change. It is a profound equalizer. Any community, family or individual who possessed the urge for higher education prospered. While these generalizations are true with reference to collegiate and university education, they carry more significance in the matter of professional education. Whatever may be the reason, our country was really underdeveloped before 1947 in the field of medical education. When India became an independent nation in August 1947, there were only 29 Medical Colleges. For a long time, there was only one Medical college with a teaching Hospital, between Madras and Calcutta. It was Andhra Medical College, Visakhapatnam, established in 1923.

The town of Guntur had a great a history. It was in the forefront of Nationalist movement. It was a centre of culture. Stalwarts of Telugu literature lived there. In the field of general education, the town excelled in Andhra. There were three Arts Colleges imparting wholsesome and relevant education. But the urge, the insatiable thirst, and the practical necessity for medical education were neglected by the provincial government for a long time. When Andhra was part of the Madras state, several representations were made by the leaders of Guntur region to start a medical college in Guntur. Disregarding these requests, the Madras Government planned for a Medical College in Madurai. C. Rajagopala Chari, then Chief Minister, sanctioned the financial grant for this. Leaders of the Medical Profession and the Guntur branch of the IMA sent several representations to start a Medical College in Guntur so that the people of coastal area and Rayala Seema would benefit.

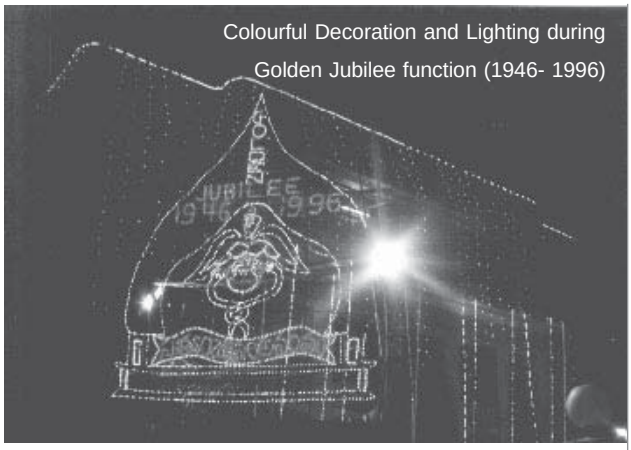
The Expert Committee

To the luck of Andhras, there was a change in the leadership of the state in 1945. Tanguturi Prakasam Pantulu became the Chief Minister. He took Mrs. Achanta Rukmini Lakshmipathi as the Health Minister in his cabinet. She evinced a keen interest in the establishment of a medical college in Guntur. There was a favourable climate in the government. Dr. Ravu venkata Rao was the District Medical Office (DMO) at Guntur. He made a comprehensive survey of the buildings available, the clinical material that can be anticipated for teaching purposes and the ultimate suitability of Guntur for starting a Medial college. He submitted the report to the Surgeon-General, who on February 2, 1946, ordered the appointment of an expert committee to visit Guntur and report on the establishment of a Medical College.

The committee consisted of two eminent physicians Dr. P. Kutumbaiah and Major Shone and a renowned pathologist Dr. T. Bhaskara Menon. These three men met at Guntur on March 25 and 26, 1946 and came to an unanimous opinion that opportunities did exist for a medical college and a collegiate hospital at Guntur but no steps should be taken till an adequate water supply was laid. The committee also recommended a comprehensive scheme for the college, hospital, hostels, library and other departments on 100 acres of land. The committee recommended the location of Guntur Medical College (GMC) at Nallapaadu. This recommendation did not take shape due to various reasons.

The Establishment of Guntur Medical College

The report of the committee was thoroughly examined by Mrs. Rukmini Lakshmipathi, and she visited Guntur on June 18, 1946 with the Surgeon-General. The Government of Madras issued an order on June 22, 1946 stating that Guntur Medical College would start functioning from July 1, 1946 admitting 50 students. The matters moved at a great speed and a long awaited, long cherished dream came true. Guntur Medical College was a reality. The help rendered by Mrs. Rukmini



Colourful Decoration and Lighting during Golden Jubilee function (1946- 1996)

Lakshmipathi was spectacular. All those who received their education in this great institution are indebted to her.

Guntur Medical College came into being like the Wonder Lamp of Alladin. But many problems lay ahead. There were no facilities of any kind to impart instruction. The government requested the Principal of Andhra Christian (AC) College, Guntur to provide teaching facilities for the medical students who were to join the Pre-Registration course. This practice, in vogue then, was intended to teach Biology, Physics and Chemistry. Mr. Sypes, the Principal of AC College, readily agreed to take the students of Guntur Medical College into his institution. Thus, the first batch of students of Guntur Medical College had their instruction in Andhra Christian College. The 50 students admitted comprised of Andhras, Tamilians, Malayalees and Kannadigas.

Meanwhile, Dr. R. Mahadevan, Special Officer, Madurai Medical College Scheme, was appointed as Special Officer, Guntur Medical College Scheme, in addition to his duties. He visited Guntur on June 28, 1946 and prepared plans for indenting the equipment, chemicals, furniture and other things. Dr. GV Satyanarayana Murthy (Dr. GVS) was appointed as the Special Officer, Guntur Medical College Scheme, and he took charge on September 17, 1946.

The Early Years

Dr. GVS did a lot of spadework to establish the college on sound lines. Senior medical practitioners of the town like Drs. P. Veeraiah Chowdary, PH Vithal Rao, C Rama Das, C. Hanumantha Rao and others offered their assistance and suggestions. The Guntur Medial College Development Committee did an extra-ordinary job. Messers Desiraju Hanumantha Rao, Maddi Sudarsanam, and M.V. Krishna Rao as members guided the institution at all times.

A building constructed in 1927 by the Government, with an idea of starting a licentiate medical school but never used for the intended purpose, was thought to be the best place as a home for Guntur Medical College. This building (now housing the departments of Biochemistry and Physiology) was under the control of the Education Department till 1942 and later became the shelter for Andhra University during the Second World War, when apprehension prevailed that the University might be destroyed due to the Japanese bombing. All the departments of Andhra University (except the Chemistry department) were lodged in the building. The war ended in 1945. Andhra University moved back to Waltair. The stage was set for occupation of the building on June 16, 1947 under the name of Guntur Medical College. It was decided to impart training in the preclinical Subjects only and then transfer the students to Andhra Medical College for their clinical courses.

The first students of the few batches who joined the Guntur Medical College were really variegated. Some were Andhras, some Tamilians and a few Malayalees and Kannadigas. The students had great problems regarding accommodation. Dr. R. Venkata Rao, the DMO, was successful in procuring a nice government building amidst official quarters and the Guntur Medical College Women Students' Hostel was established in September 1946. A building in 3rd line Brodiepet was rented in August 1947 for establishing the Men Students' Hostel.

The students were really brave, understanding and adjusted themselves to a great deal of hard ship. Many students of the first four batches later became professors in various medical colleges in the state. They did very well in their academic pursuits and the results in the university examinations were very encouraging. The Guntur Medical College Students Association was established in 1946. The inaugural address was delivered by Lt. Col. CK Prasada Rao. M. Rayaleswara Rao was the first General Secretary of the Students Assocaition.

Dr. GV Satyanarayana Murthy was transferred to Bellary as District Medical Officer. Dr. C. Vareed (Professor of Physiology) succeeded him as Principal. A series of transfers took place in the subsequent years. Thus, Drs. Mrs. B. Lazarus, K. Govind Menon, DV Subba Reddy, Mrs. Sarah J Sowri, and V. Sita Rama Rao functioned as Principals.

The history of Andhras, and indeed the history of the country, took a spectacular turn in 1953. A separate Andhra State was carved out of the composite Madras State on October 1, 1953. It was possible due to an ardent struggle of the Andhras and the supreme sacrifice by Sri Potti Sreeramulu. Kurnool was chosen as the capital of Andhra State. Sri T. Prakasam Panthulu was the first Chief Minister.

Dr. DJ Reddy Becomes the Principal

The Government was very considerate to the representations from the citizens of Guntur and granted permission to upgrade the Guntur Medical College into a full fledged Medical College, so that there was no need to go to Visakhapatnam for Clinical Studies. It was an important landmark in the history of GMC. A G.O. issued clearly specified for the expansion of the Guntur Medical College and a commensurate expansion of the District Hospital into a

teaching Hospital. Dr. D. Jagannadha (DJ) Reddy who was then the Professor of Forensic Medicine, Andhra Medical College, Visakhapatnam, was posted as the Special Officer and Principal of the Guntur Medical College. His arrival was something of a talisman. He contributed to the growth of the Institution immediately. He was largely responsible for making GMC prominent on the Medical Map of India, as the later history would endorse.

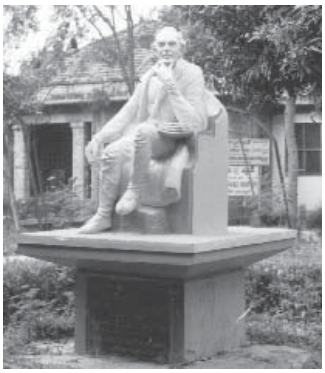
Dr. D. Jagannadha Reddy took charge on July 26, 1954. The college development was included as one of the developmental schemes in the First Five Year Plan. Grants were released. Building work went on with a great speed. The land in front of the Physiology Block, which was used as a cricket ground for the students, was improved and a two-story block, called at that time the Pathology Block, was planned. Sri AB Shetti, Health Minister in the composite Madras Sate, laid the foundation stone on September 13, 1953. Andhra Kesari Sri T. Prakasam (Chief Minister) inaugurated the clinical courses on July 6, 1954. The Building was completed and it was declared open on 19-09-1955 by Dr. B. Gopala Reddy the Chief Minister of Andhra.

The Block housed the departments of Pharmacology, Community Medicine, Microbiology, Pathology, Forensic Medicine and the Administrative Section in addition to the lecture galleries. The building was grand and beautiful. Landscaping added more charm to the college. With dining halls located at the rear of the main building and the library at the rear of the Physiology Block, the college was complete in many respects. The excellent Pathology Museum was considered the best in the country. Great attention was paid towards the aesthetic aspects. The college had a large number of statues, portraits and meaningful quotations displayed at various places. The campus rated high in cleanliness, neatness and the total richness of impression. Academic standards were very high. In the matter of extra-curricular activities, the college excelled many institutions.

The Development of the Government General Hospital

The clinical departments located in the new General Hospital were established on modern lines. Dr. M. Munuswamy, Professor of Surgery, was the first Superintendent. The outpatients' clinic and the wards were organized well to suit the needs of the patients and the medical students who were posted for learning. Dr. K. Kondandaramaiah as Professor of Medicine and Dr. Mrs. R. Satyabhama Reddy as Professor of Obstetrics & Gynecology organized their departments in a superb manner. Drs. G. Ethirajulu, C. Sobhanadri, V. Raghavachar, K. Krishna Murthy, JS Sarma and YR Reddy contributed a lot to the growth of the Hospital in the formative years. Honorary professorial system was introduced. Dr. C. Sambasiva Rao as Honorary Professor of Medicine and Dr. N. Balakrishna Reddy as Honorary Professor of Surgery provided their valuable services to strengthen the clinical teaching. The College and Hospital derived great benefit from the expertise and experience of Drs. Pinnamaneni Venkateswara Rao, K. Sada Siva Rao, M. Gopala Krishna who joined as Honorary Professor of Surgery, and Dr. U. Venkata Ratnam who joined as Honororay Professor of Medicine in the later years.

MCI Recognition



The first batch of MBBS students who had their full studies in Guntur appeared for the final MBBS Examination in April, 1958. The performance was commendable. The intake of students increased to 105 in 1957 and then to 125 in 1958 and finally to 105 in 1959. The old Intermediate course was replaced by the Pre-University course in 1957. As a consequence of this, the Pre-Professional course (PPC) was introduced effective from August, 1958. This course comprised the subjects of English, Biology, Physics and Chemistry. It was proposed to add another floor to the main building to lodge these departments as well as the department of Anatomy. The construction of this floor was completed in 1959. The magnificent three-storied main building of Guntur Medical College was named "Achanta Rukminamma Memorial Building" in memory of the great lady without whose help the institution would not materialize. Major KN Rao, the Director of Medical Services, was instrumental in obtaining all the necessary Governmental approvals and aid. He played a key role in the growth of Guntur Medical College. We owe him a lot.

The Medical Council of India accordance full recognition for the College in 1959. The General Medical Council granted recognition in 1960. The Hostel for Men Students, built on the Amaravathi Road, was opened in 1958.

Mention must be made a several stalwarts who gave shape and direction to the college. They include senior academicians like Drs. V. Ramachandra Rao (Anatomy), ASR Murthy (Physiology), B. Naganna (Bio-Chemistry), VS Venkarasubbu (Pharmacology), NU Rao (Microbioloyg), BS Ramachandran (Community Medicine) and D. Sundara Siva Rao (Forensic Medicine). Many Professors were deputed abroad for short-term training under various schemes. Dr. D. Jagannadha Reddy went to U.S.A. in 1959 and attended the World Congress on Medical Education held at Syracuse. Many research schemes were undertaken with good results. There was an excellent academic atmosphere with lively and enthusiastic clinical meetings. Many students of the college achieve honors at the university examinations. In the field of sports, elocution, debating and dramatics the students of GMC scored laurels and kept the banner of the college high.

Permission for PG Courses

Development was at a high pace. Permission was granted to start the post-graduate (PG) courses in 1958. The response was very good. After some organizational changes, the PG Courses were offered full scale and with the examination center in GMC itself. The keen desire of many doctors for pursuing post-graduate medical education was satisfactorily answered. Many efforts were made to offer health education through Health and Medical Exhibitions. They were held in

1956, 1958 and 1960 during the Principalship of Dr. DJ Reddy. They were very useful. The public had great praise for them. A separate building for Library-cum-Auditorium was constructed. It was opened on July 2, 1962 by Major KN Rao. The Library has a good collection of books. The Auditorium serves the dual purpose of a meeting hall and examination hall. A vast range of functions were conducted there over the last 40 years. Rural Health Center was located at Tadikonda. In the field of Education and Research, in the arena of extra curricular activities, in the field of NCC, in the matter of medical care provided to patients through its teaching hospital, the GMC emerged as a supreme institution and earned an excellent name in the country and abroad. During his stay of eight years, Dr. D. Jagannadha Reddy rendered very meaningful and concrete service to the Guntur Medical College. His name and GMC were considered synonyms. He was transferred to Visakhapatnam in November, 1962.

The Post DJ Years

Dr. I. Chalapathi Naidu, an eminent Surgeon and a man of great integrity, succeeded Dr. Jagannadha Reddy as Principal. He did good service regarding the construction of the second block of the men's hostel. He imparted very good training to the under-graduates and post-graduates. He, however, did not remain long in that position. He was transferred to Kurnool Medical College in 1964. Dr. P. Narasimha Rao, the doyen of ENT Surgeons in the country, took over as Principal. A senior administrator, teacher, and member of the Andhra University syndicate, he had a sharp intellect and a keen judgment. He was responsible for making the GMC a centre for the PG Exams in 1966. He used his good offices to obtain two buses to solve the problem of transport of the hostellers. He streamlined the administration. The Open-air Auditorium was built during his term. Similarly the college cafeteria came into existence when he was Principal. An impressive Medical and Health Exhibition was conducted in February 1968, and it was opened by Mr. PV Narasimha Rao the then Health Minister of AP. He endeavored his best to improve the academic atmosphere. The clinical meetings were conducted with great regularity and scientific conducted with great regularity and scientific zeal. He retired from office in December, 1968.

Dr. K. Kondandaramaiah, an eminent Physician and Professor of Medicine, succeeded him. The mode of selection of the Medical Students changed in 1970. An entrance test was conducted in August, 1970. Dr. Kondandaramaiah and his team conducted the test in a flawless manner and acquired a good reputation. During his Principalship, the Guntur Medical College celebrated its Silver Jubilee in February, 1971. It was a grand function extending for a week. It was really colorful and memorable. Eminent actors like SV Ranga Rao visited the college. During these celebrations, a good Health and Scientific Exhibition was arranged under the direction of Dr. V. Kameswara Rao. Dr. Kondandaramaiah did a great deal of service in obtaining additional units in the departments of ENT, Ophthalmology and Orthopedics. The department of Cardiology was established during his term. Dr. Kondandaramaiah retired in 1972. Dr. N. Subhadra Devi, a renowned obstetrician and gynecologist, succeeded him. She introduced many changes in the library and in the nature of post-graduate Education. In quick succession, there followed Drs. L. Suryanarayana, B. Shanmukheswara Rao, D. Bhaskara Reddy, G. Ethi Rajulu, VSN Murthy and others who functioned as principals and guided the affairs of the institution. Drs. ENB Sarma, C. Savitri, and P. Lakshman Rao provided valuable services to the college in various respects. Many principals occupied the office for short durations except Dr. K. Rajendra Babu. 47 Principals have presided over the development of the college since its inception. The college celebrated its Golden Jubilee in 1996. The Prime Minister Mr. HD Deve Gowda was the Chief Guest. A pylon was erected near the main entrance to mark the occasion.

The General Hospital underwent a metamorphosis over the past five decades. Significant improvements were initiated to augment the nature of Medical Care. The stewardhip was in the hands of Drs. S. Venkateswarlu, K. Kondandaramaiah, S. Ramachandra Rao, VS Raghunadhan, L. Suryanarayana, N. Veerabhadra Reddy, YR Reddy, P. Lakshman Rao for a long time who introduced timely changes in the hospital. In recent history, many developments in the hospital were carried out under the leadership of Dr. K. Anji Reddy and Dr. Fayaz Ahmed. The Department of Cardiology was organized on modern lines. The CCU facility has been of great help. The Guntur Heart association rendered exceptionally good service to the public. The Government granted advanced specialties and properly qualified personnel were posted to run these departments. The departments of Pediatric Surgery, Plastic Surgery, Neuro

Surgery, Neurology, Gastro-Enterology were organized on a scientific basis providing the much needed tertiary care in our areas. Several doctors contributed towards the success of these specialties. However, mention must be made of Drs. K. Anji Reddy, B. Subba Rao, Y. Nayudamma, U. Surya Kumari and Taraka Nath whose constant endeavors and dynamism lent a stamp of quality There are many others who need to be acknowledged if space permits.

The TB Sanatorium at Mangalagiri was used for teaching purposes till 1989. Fever Hospital or Hospital for Infectious Diseases was constructed on the Amaravathi Road in 1965. It underwent suitable expansion in the years that followed.

The Alumni Organizations

The Old Students Association of Guntur Medical College was formed in 1971 on the occasion of the Silver Jubilee of the college. Now referred to as GMCOSA, the organization has annual programs to sustain old memories, to honor distinguished students, to arrange CME programs, and to conduct cultural events.

A large number of doctors who graduated from the Guntur Medical College migrated to United States of America, United Kingdom, the Middle East and other countries. The migration to USA is the maximum in terms of numbers. It started in 1965 and registered a rapid escalation during 1970-1975. To this day, we find considerable number of our doctors emigrating to USA almost every year. They are doing exceptionally well in that country. They, by virtue of their hard work, diligence and talent earned a good name for themselves and their alma mater. Our doctors specialized in almost all the branches of Medicine. They contributed immensely to medical care, education and research in their country of adoption. Indeed, Andhra Pradesh must be proud of these doctors.

A significant development took place on December, 1981 when our alumni in USA incorporated an organization called Guntur Medical College Alumni of North America (GMCANA) as a General Not for Profit Corporation in the State of Missouri.

GMCANA has noble goals. Their commitment and interest to give assistance to the development of their mother institution are extremely laudable. No praise is too high for their love and affection towards GMC. They donated in a liberal manner to various projects like CME Center, Emergency Operation Theatres, Ultrasound and X-ray machines, Physiotherapy, Neonatal Care and the crowning masterpiece namely the Auditorium. They have also donated a large number of books and educational material to the college. They have a distinct vision of realizing the best potential of these institutions and a well thought out road map on how to reach their goals.

Eminent Faculty and Alumni

It is a matter of great pleasure to note that many faculty members who served the GMC rose to eminence in many walks of life. Dr. P. Narasimha Rao served as president of Medical Council of India. Drs. DJ Reddy, B. Swamy, D. Bhaskara Reddy, KRR Mohan Rao, L. Suryanarayana, K. Rajya Lakshmi and CS Bhaskaran served as Vice-Chancellors of universities.

Guntur Medical College has turned out some of the brilliant medical men and women who settled in India and abroad. They achieved great fame. The names of Drs. CM Hababullah, Gullapalli N Rao, B. Soma Raju, D. Prasada Rao stand out prominently. These four doctors were conferred Padmasri by the Government of India in recognition of their outstanding contributions and services. Outstanding scientists like Drs. B. Sadasivudu, G. Joseph, Naga Gopal and T. Prabhakar were all students of GMC. The Pediatric Surgeon Dr. Y. Nayudamma who did pioneering work on conjoint twins, Cardio-thoracic Surgeons Drs. Gokhale and Gopi Chand who performed Heart Transplantation surgeries deserve accolades. Dr. Jayaprakash Narayan, an eminent civil servant and now the convenor of Lok Satta, was our student. Some of our alumni became important figures in the field of politics. They include Drs. Y. Sivaji, Kolli Sarada, K. Siva Prasada Rao, M. Peda Rattaiah, R. Srinivas, S. Aruna and MV Ramana Reddy. Prominent writers like Drs. Dakshina Murthy, Ravindra Babu, Venu Gopal Reddy, Indira Priyadarshini, Ketu Butchi Reddy, Bapuji Rao, Jampala Chowdary and Y. Rama Raja Bhushanudu were all students of GMC. Actors, speakers, singers, sports men and social workers emanated from the ranks of Guntur Medical College in large numbers. Dr. CMK Reddy, President of Tamilnadu Medical Council, was a student of GMC during 1958-1963. Space is the main constraint in giving a complete list of the names that earned distinction in several fields.

Guntur Medical College and the Government General Hospital have rendered commendable service to the people of Andhra Pradesh. They played a significant role in nation development. The college established in 1946 amidst uncertainness and a vast range of problems weathered many a storm. The institution had the right kind of leadership at the right time. Medical graduates trained in the Guntur Medical College are now found in every town and city of Andhra Pradesh. Their distinguished services in the professional context and in various social activities are always laudable. The graduates who settled abroad have achieved great fame to themselves and to their alma mater. Very few institutions in India have such a superlative record as to match the GMC. There are, of course, some lacunae and blemishes in some areas. But they do not minimize the profound role played by the Guntur Medical College in the last six decades. We wish a glorious future for this illustrious institution.

GOD BLESS GMC! LONG LIVE GMC!

(Courtesy: Reflections, january 21-23, 2005)

QUIZ Contest - 1

RULES

All students preparing for PG entrance exams can participate in Receptor Quiz contest.

Answers marked only on the entry form of the magazine/photocopy of form will be accepted.

More than one response to a question will be disqualified.

PRIZES

Top 10 winners will get Rs.500/- worth of books published by Kalam Books every month.

The decision of the editor will be final and binding in all cases and will not be a matter for consideration of any court and no correspondence will be entertained.

Receptor is not responsible for any postal delays, transit losses or mutilation of entries.

The entries should reach **on/before 25th October 2008** to -

Receptor Quiz contest, Kalam Books, 3-6-640/1, St.No.8, Himayatnagar, Beside St.Anthony's School, Hyderabad-500029

1. **Serum ferritin levels beyond which Iron therapy in CFR is contraindicated?**
   a. 500 µg/L
   b. 600 µg/L
   c. 700 µg/L
   d. 800 µg/L

2. **Correction factor used to calculate GFR in female by using Cockcroft-Gault equation?**
   a. 0.65
   b. 0.75
   c. 0.85
   d. 0.95

3. **Taste sensations are reduced in?**
   a. Diabetes mellitus
   b. Addison's disease
   c. Hyperparathyroidism
   d. Acromegaly

4. **In Operation Theater by using filter of 5 mm pore size with 20 air changes and adequate ventilation, bacterial count can be reduced to _____CFU/m3.**
   a. 100
   b. 200
   c. 300
   d. 400

5. **Kaenen's tumor is seen in?**
   a. Von Reckling Hausen disease
   b. Sturge Weber syndrome
   c. Tuberous sclerosis
   d. VHL disease

6. **A 42-yr-old man is brought to emergency department because of the acute onset of severe headache. His wife says his general health is pretty good except for a few episodes of hematuria over past few weeks. Hi blood pressure is 150/90 mm HG. A CT scan of head shows acute SAH. Which of the following is most often associated cardiac abnormality with this disease?**
   a. HOCM
   b. ALCAPA
   c. Mitral valve prolapse
   d. Tricuspid regurgitation

7. **In an isomeric contraction of a skeletal muscle, the force of contraction cannot be altered by?**
   a. Changing the resting length of muscle
   b. Increasing the stimulation frequency
   c. Adding sarcomeres in series
   d. Adding sarcomeres in parallel

8. **Which of the following is not a fibrocartilage?**
   a. Intervertebral disc
   b. Eustachian tube
   c. Epiglottis
   d. Costal

9. **In which of the following would you NOT expect the plasma bicarbonate to be above normal (>24 mmol/L)?**
   a. Completely compensated respiratory acidosis
   b. Uncompensated respiratory acidosis
   c. Uncompensated metabolic alkalosis
   d. Uncompensated respiratory alkalosis

10. **'One-and-a-half' syndrome occurs due to lesion of?**
    a. Ipsilateral Medial longitudinal fasciculus and the contralateral abducens nucleus.
    b. Medial longitudinal fasciculus and the abducens nucleus on the same side.
    c. Medial longitudinal fasciculus on the same side.
    d. Abducens nucleus on the same side.

11. **The conduction pathway for the somatesthetic senses?**
    a. Anterior spinothalamic tract
    b. Lateral spinothalamic tract
    c. Medial leminiscal system
    d. Rubrospinal tract

12. Locking of the knee joint is produced by?
a. Quadriceps femoris
b. Adductor magnus
c. Popliteus
d. Sartorius

13. The ability of sperms to move forward, which is acquired in the epididymis, involves activation of a unique protein called?
a. Capasitor
b. Spermin
c. Catsper
d. Motilin

14. A 3 yr old boy is brought to physician by his mother because of 2 day history of puffy eyes and smoky urine. His mother says he had some skin infection 2 weeks prior to the onset of these symptoms. He is febrile and his BP is 140/90 mm Hg. Lab studies show low complement levels. Which of the following electron microscopic finding is associated with this patient's disease?
a. Glomerular BM disruption, but no deposits
b. Effacement of epithelial foot processes
c. Mesangial immune complex deposits
d. Subepithelial immune complex deposits

15. Which of the following ensure that the final "proper" conformation of the nascent protein is reached?
a. Chaperones
b. Ribozymes
c. Scaffold proteins
d. Apoproteins

16. Mutation of which of the following gene predisposes to melanoma?
a. p16NK4A b. PATCH
c. MSH2 d. p53

17. In a patient on Magnesium sulphate therapy, usually at what levels the patellar (knee) reflex disappears?
a. 6 mEq/L
b. 8 mEq/L
c. 10 mEq/L
d. 12 mEq/L

18. Major heparan sulfate proteoglycan of basement membranes and connective tissues?
a. Perlecan
b. Dystrophin
c. Sarcoglycan
d. Alpha dystroglycan

19. The most important naturally occurring thrombin inhibitor in normal plasma?
a. Antithrombin III
b. Alpha2-Macroglobulin
c. Heparin cofactor II
d. Alpha1-antitrypsin

20. Locus heterogeneity is?
a. Mutation at different loci can produce same phenotype
b. One gene has more than one effect on an individual's phenotype
c. Occurs when the cells in the body have different genetic make up
d. Tendency of certain alleles at two linked loci to occur together more often than expected by chance

21. Which of the following is a malignant, small-cell tumor of neuroepithelial origin seen in children and adolescents?
a. Plasmacytoma
b. Askin tumor
c. Fibromatosis
d. Chloroma

22. Follicular lymphoma is negative for?
a. CD19 b. CD20
c. CD10 d. CD5

23. Transient cold agglutinins occur commonly in?
a. Yellow fever
b. Chlamydial infections
c. Infectious mononucleosis
d. Atypical mycobacterial infection

24. Type-III RPGN is seen is?
a. HSP
b. SLE
c. Wegener's granulomatosis
d. Good Pasture's syndrome

25. Carbonic anhydrase is active in high concentration in the?
a. Duodenal mucosa
b. Pnacreatic duct cells
c. Chief cells of stomach
d. Parietal cells of the stomach

26. Alien limb phenomena is a characteristic of?
a. Olivopontocerebellar degerneration
b. Progressive supranuclear palsy
c. Corticobasal degeneration
d. Pick's disease

27. Contraceptive of choice in sickle cell disease?
a. Progesterone only pills
b. Rhythm method
c. OC pills
d. IUCD

28. Calot's triangle is bounded by the following EXCEPT?
a. Hepatic artery
b. Cystic duct
c. Common hepatic duct
d. Liver

29. Feature of reversible cell injury?
a. Mitochondrial swelling with dense densities
b. Plasma membrane blebs
c. Lysosomal rupture
d. Pyknosis

30. Type of necrosis occurring in cerebral infarct?
a. Coagulative necrosis
b. Liquifactive necrosis
c. Caseation necrosis
d. Fatty necrosis

31. True regarding Xenon anaesthesia include the following EXCEPT:
a. Non inflammable
b. Minimal cardiac effect
c. Low blood gas solubility
d. Slow induction & slow recovery

32. Acetylcholine esterase levels are highly specific for:
- a. Omphalocele
- b. Gastroschisis
- c. Open spina bifida
- d. Sacrococcygeal teratoma

33. Facilitated diffusion can be distinguished from simple diffusion by which of the following?
- a. Facilitated diffusion is saturable, simple diffusion is not.
- b. Facilitated diffusion requires ATP, simple diffusion does not.
- c. Facilitated diffusion is not chemically specific, simple diffusion is.
- d. Facilitated diffusion is dependent on concentration gradient, simple diffusion is not.

34. Frame shift mutation will not affect if there is?
- a. Four base repeat
- b. Triple base repeat
- c. Double base repeat
- d. Any of the above

35. Unfavourable prognostic factor in neuroblastoma?
- a. Triploidy
- b. DNA ploidy
- c. N-MYC amplification
- d. Tyrosine kinase receptor inactivation

36. "Cytoplasmic mulberries" (morulae) are seen in blood granulocytes in which of the following infection?
- a. Chlamydial infection
- b. Babesiosis
- c. Scrub typhus
- d. Ehrlichiosis

37. Marker that rises in 2-4 hours and stays up to 9-10 days of acute myocardial infarction and not normally found in blood is:
- a. CPK
- b. Troponin
- c. Myoglobin
- d. Creatinine

38. Pneumonia associate with congenital syphilis?
- a. Pneumonia alba
- b. Hoest pneumonia
- c. Round pneumonia
- d. Fredlander's pneumonia

39. In diabetic ketoacidosis:
- a. Greater than normal amounts of Na^+ and K^+ are lost In urine
- b. The minute volume of alveolar venatilation is below normal
- c. K^+ entry into the muscle and fat cells is increased
- d. The urine is alkaline

40. One of the following is not a malignancy?
- a. Fetus in fetus
- b. Brown tumor
- c. Askin tumor
- d. Chloroma

41. HLA DR7 associated with?
- a. JRA
- b. Diabetes type I
- c. Multiple sclerosis
- d. Steriod responsive nephritic syndrome

42. Patient presents with tics, echolalia, and coprolalia. The most probable diagnosis is?
- a. Tourette syndrome
- b. Prion disease
- c. Schizophrenia
- d. Tics

43. Untrue about propofol?
- a. Is emetogenic
- b. Contraindicated in porphyria
- c. Preferred for 'day care' anaesthesia
- d. Used for induction as well as maintenance of general anaesthesia

44. Burn involving epidermis and full thickness of dermis?
- a. First degree burn
- b. Partial-thickness second degree burn
- c. Full-thickness second degree burn
- d. Third degree burn

45. Which of the following is strongly associated with familial Parkinson's disease?
- a. Tau
- b. Ubicutin
- c. Alpha Synuclein
- d. Beta Synuclein

46. Antibodies in Lambert-Eaton syndrome?
- a. Anti-calcium channel antibodies
- b. Anti-amphiphysin antibodies
- c. Anti-recoverin antibodies
- d. Anti-Hu antibodies

47. "Around the clock" pattern of limb weakness is seen in?
- a. Central cord syndrome
- b. Conus medullaris syndrome
- c. Lesions of the foramen magnum
- d. Anterior spinal artery syndrome

48. About "salt wasting disease" in SAH, all the following are true EXCEPT?
- a. Occurs in the first 2 weeks following SAH
- b. It is due to inappropriate secretion of ADH
- c. Resolves over course of 1-2 weeks
- d. Free-water restriction is advised

49. Most common type of neuropathy in diabetes?
- a. Distal symmetric polyneuropathy
- b. Autonomic neuropathy
- c. Cranial neuropathy
- d. Amyotrophy

50. All the following are true regarding ventilatory management of ARDS EXCEPT:
- a. ph goal 7.3-7.4
- b. Tidal volume < 6 ml/kg
- c. PaO2 goal 55-80 mmHg
- d. Peak plateau pressure < 40 mmHg

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3. ⓐ ⓑ ⓒ ⓓ	13. ⓐ ⓑ ⓒ ⓓ	23. ⓐ ⓑ ⓒ ⓓ	33. ⓐ ⓑ ⓒ ⓓ	43. ⓐ ⓑ ⓒ ⓓ
4. ⓐ ⓑ ⓒ ⓓ	14. ⓐ ⓑ ⓒ ⓓ	24. ⓐ ⓑ ⓒ ⓓ	34. ⓐ ⓑ ⓒ ⓓ	44. ⓐ ⓑ ⓒ ⓓ
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10. ⓐ ⓑ ⓒ ⓓ	20. ⓐ ⓑ ⓒ ⓓ	30. ⓐ ⓑ ⓒ ⓓ	40. ⓐ ⓑ ⓒ ⓓ	50. ⓐ ⓑ ⓒ ⓓ

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