

SAMPLE QUESTIONS AND SUGGESTED GUIDELINES OF ANSWERS-2017

CLASS-XI

PHYSICAL EDUCATION (THEORY)

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SAMPLE QUESTION NO.1

1. What is positive life style?

Ans. A way of life or living style that reflects the attitude and values of as person or group. 1

2. What are the career options available through physical activities?

Ans. Physical activities has increased and many career options have cropped up. Various career options in this field may be (a) of teaching, (b) coaching, (c) recreation work, (d) administration of physical activities like the duties of District sports officers, (e) sports journalism, (f) radio and television commentators, (g) sports medicine field and (h) professional sportsmen. 1

3. What is Beta Blockers in Doping?

Ans. Beta blockers are anxiety reducing agents which are used in games that involve concentration and risk. They reduce the anxiety, lower the heart rate, reduce body temperature, reduce stress. 1

4. What do you mean by Ergogenic Aids?

Ans. Ergogenic aids are substances, foods or training methods that enhance energy production, use or recovery and provide athletes with a competitive advantage. In fact, Ergogenic aids are any external influence that enhance sports performance or facilitate physical exercise.

5. Mention two important functions of Respiration?

Ans. (a) Inhalation, (b) Exhalation. 1

6. What is the meaning of Physical Fitness?

Ans. It is the capacity of an individual to perform a given task or it is the capacity to carry out reasonably well, various forms of physical activities without unduly being tired and It can be said that physical fitness is the ability to function effectively and efficiently, to be healthy, to resist disease and to cope with the emergency situations and includes developing qualities important to the individual health and well being. 1

7. What do you mean by Obesity?

Ans. Obesity:- Obesity is that condition of the body in which the amount of fat increases at extreme level. 1

8. What are the types of Doping?

Ans. Doping:- Doping can be classified into the following two types: 1

1. Performance enhancing substances (Stimulants, Anabolic Steroids, Peptide Hormones, Narcotics etc.),
2. Physical methods (Blood Doping, Gene Doping) 1

9. Define Physical Activity?

Ans. Physical Activity is any body movement that works your muscles and requires more energy than resting. It can also be defined as any movement of the body that requires energy expenditure. 1

10. What do you mean by Pranayama?

Ans. Pranayama : Prana means 'life force' and ayama means 'to control'. Pranayama helps in controlling all the functions of breathing namely- inspiration, exhalation and retention. These are breathing practices to breathe in, to breathe out and to be relaxed. It means these breathing exercises promote energy, awaken the mind and clean the body. 1

11. Mention the preventive and curative effects of Yoga.

Ans. Preventive and curative effects of Yoga : Yoga involves a variety of postures, which affect the entire body. Asanas recharge the body and help in even distribution of energy throughout the body. It helps in curing many diseases related to circulatory and respiratory system, muscular system, skeletal system, nervous and digestive system. This results in improved health of mind and body. 1

12. Enlist the performance enhancing substances.

Ans. (Performance enhancing substances:- Doping can be classified into the following two types: 1. Performance enhancing substances,

2. Physical methods. Performance enhancing substances are.

1) Stimulants:- Stimulants are related to a group of drugs that enhance alertness and physical activity by increasing heart and breathing rates and the functions of the brain.

2) Anabolic steroids:- Anabolic steroids stimulate the growth of muscles and help the athletes to train harder and recover rapidly.

3) Peptide Hormones:- peptide hormones are substances that are produced by glands in the body.

4) Narcotics:- Narcotics are used to reduce or eliminate pain from injuries or allow athletes to do persistent efforts for a longer time.

5) Cannabinoids:- Cannabinoids are psychoactive chemicals that cause a feeling of relaxation.

6) Diuretics:- Diuretics are non-performance enhancing drugs but these are used in sports to remove fluids from the body particularly water. (Explain any three) 3

13. Give a short description of different Muscle Types 3

S. N.	Muscle Type	Description
(a)	Cardiac Muscle (striated, involuntary)	This makes up the wall of the heart.
(b)	Smooth Muscle (unstriated, involuntary)	This is contained in structures which we do not have control over such as blood vessels, stomach and intestine, urethra, uterus, internal muscles of the eye.
(c)	Skeletal Muscle (striated, voluntary)	This is the muscle attached to our skeletons and allows us to move our bodies.

14. Discuss any three components of Physical Fitness :

Ans. Three components of Physical Fitness :

(1) **Strength:-** Strength is the ability of the muscles to overcome resistance – it is divided into Dynamic & Static strength – Dynamic strength is again divided into Maximum strength, Explosive strength, Strength Endurance.

(2) **Speed:-** Speed is the ability or capacity of the individual to perform a movement of the same pattern at faster speed.

(3) **Endurance:-** Endurance is the ability to sustain an activity or as the ability to resist fatigue. There are two types of endurance a) Short term endurance, Long term endurance.

(4) Apart from this Flexibility, Co-ordinative abilities are another components of fitness- (Ref. to book) 3

15. Mention the Objectives of Olympic Games.

Ans. Objectives of Olympics :

According to **Coubertin**, following objectives can be achieved through Olympic Games :

(1) To pay attention towards physical education and sports competitions in all the countries of the world.

(2) To develop the personality, character, citizenship qualities and health among the youths.

(3) Formation of good habits among sports-persons so that they could lead a healthy and prosperous life.

(4) To develop patriotism and fraternity among sports persons.

(5) To develop international fraternity and peace.

(6) Not to have any discrimination on the basis of caste, race and religion. 3

16. Mention the Prevention and Treatment of Hypertension

Ans. Prevention and Treatment of Hypertension: As a matter of fact, the individuals who have hypertension remain more serious to know their measurements of blood pressure instead of doing something to prevent it. Hypertension can be checked as well as treated, if they follow the below mentioned points appropriately :

(a) **Relieve Stress** :Relieve unnecessary elements of stress in your life. Try to indulge yourself in some recreational activities as well as in meditation, yoga, regular walks, dancing and mixing with other people, etc. These are best means to relieve stress which further reduces hypertension. Consequently, it can be said that by following the above-mentioned points on regular basis hypertension can be prevented and treated effectively.

(b) **Take Proper Diet** :Reduce the intake of sodium in your diet *i.e.*, take less salt. Take potassium, calcium, magnesium, high fibre, whole grain products, low fat, nuts, fruits and vegetables in your diet. Researches indicate that such diet is beneficial in preventing and treating hypertension.

(c) **Reduce Obesity** :Use high quality programme of exercises and take appropriate balanced diet to reduce obesity. Reducing your body weight is the most effective way to treat hypertension.

(d) **Exercises or Sports Activities** :Exercises or sports activities are usually helpful in the prevention and treatment of hypertension. In fact, exercises lower the blood pressure through some possible mechanisms. Moderate exercises with high intensity are very effective for long-term blood pressure lowering programme. In the beginning, walking should be at slow pace, then gradually it should be increased at a faster rate. It should be kept in mind that the patients of hypertension should perform such exercises with moderate intensity. The amount and duration of exercise programme should be according to the capacity of an individual. Aerobic exercises and playing various sports and games are also very effective in preventing and treating hypertension. The exercises should be performed regularly for good results.

(e) **Change in the Lifestyle** :A change in the lifestyle can be a boon to the persons having hypertension. They should take proper and balanced diet. They should not lead sedentary lifestyle. Instead of this, they must lead active and healthy lifestyle. They should not consume alcohol. They must say 'no' to smoking in action, not just in words. They should not indulge themselves in overwork. They should not take drugs and other stimulants. They should not adopt the Western lifestyle. They should keep themselves away from Western diet. Such types of lifestyle management may do miracles in preventing and treating hypertension. 3

17. Mention the side effects of Alcohol

Ans. Alcohol reduces the ability of a person to make decision. One has poor judgement and decision making ability *e.g.* a tennis player under influence of alcohol can not judge the ball properly and hence cannot decide quickly where to hit. It is difficult for a drunken player to concentrate on the game and to remember the techniques, strategies and tactics of the game. A sportsman tends to be aggressive after intake of alcohol and plays a rough game. Physical fitness decreases and chances of Injuries increase a great deal. Hence, looking at all the ill effects that consumption of alcohol has, it is wish to avoid consuming liquor in any form.

18. Discuss the Paralympic Movement in brief. 3

Ans: The Concept:-The Paralympic Games are the world's largest sporting event for the people with physical, visual and intellectual disabilities. Sir Ludwig Guttmann started the movement, in 1960, 1976, 1980 this games were played, In 1982 the Original governing body of the Paralympic movement was formed. In 1994 the games were held in IPC, the 2008 Beijing Olympic games was considered as a best games for the disabled, It is held in two categories one is summer Olympics and winter Olympic games. The winter games were also held in every four years.

Opening Ceremony:-it begins with hosting of host countries of flag and display of National Anthem Matchpast, torch ceremony, cultural programme, lighting of the flame was conducted.

Closing Ceremony:-on the conclusion of the events, marchpast, lowering of the flag, extinguish of flame, cultural programme were held.

International Paralympic Committee:-established in Sept. 22nd 1982, Headquarter located at Bonn (Germany), with a vision "to enable paralympic athletes to achieve sporting excellence and inspire and excite the world", a global governing body, serves as the international federation for nine sports, the aim is to develop sports opportunities for all the people with an impairment from the beginner to the elite level. It

organizes the winter and summer paralympic games and supervises and coordinates the world championships and other competitions.

Categories of Disabilities:- Ten disabilities categories including Physical impairment or disabilities includes impaired muscle power, impaired passive range of movement, loss of limb, leg length difference and short stature etc., Visual impairment includes impairment of one or more components of visual system. Intellectual disabilities includes the significant impairment of intellectual functioning.

19. Value Based.

Once upon a time, during an athletic meet in stadium, 8 girls were on starting line ready for the race. With the sound of pistol, all 08 girls started running. Hardly had they covered 10 to 15 metres, when accidently one girl slipped and fell. Due to pain the girl started crying. As soon as the other 07 girls heard her cry; all of them stopped running, stood for while, turned back, and ran towards her. Suddenly, the girls returned, pacified her, joined their hands together, lifted her, walked together and reached the finishing line. The officials were shocked to see such scene and unity. Quite a many eyes were filled with tears.

Based on the passage above, answer the following questions:

1. What values do they teach? *Ans: Unity, Coordination, understanding*
2. What quality girls have shown by walking together? *Ans: help the needy at the time of crises*
3. What was so special about the race? *Ans: Sportsman spirit*

3

20. Define Asana, Pranayam, Meditation

Ans. The prolonged practice of yoga leads the student to a sense of peace with his/her environment. Asanas cater to the needs of every individual according to his physical condition and capacity. Various effects of yoga on individuals are stated below :

(1) **Asanas :** After yama and niyama, asanas come on third number. Asana means 'position or posture of body'. It also means to sit in easy posture. Due to its popularity, most of the people think that yoga is nothing but asana. They are not aware that asana is a step towards yoga. In fact, asanas are performed to keep the body flexible, agile and young. Asanas also enhance the beauty of the body by reducing inappropriate accumulation of fat in the body. There are various types of asanas such as corrective asanas, relaxative asanas and meditative asanas. These types of asanas have different types of effects on various organs of body. These asanas activate the functions of various organs. asanas can be performed from young age to old age without any problem.

(2) **Pranayama :** Pranayama is the control of the process of breathing. It means the appropriate control over inhalation and exhalation. Basically there are three constituents of pranayama, i.e., Puraka (Inhalation), Kumbhaka (Retaining the breath) and Rechaka (Exhalation). There are various types of pranayama such as Ujjayi, Suryabhedhi, Sheetkari, Sheetali, Bhastrika, Bhramari, Murcha and Plavini. It helps in metabolic activities and enhances the function of heart and lungs. It also provides longevity to life.

(3) **Meditation :** The concentration power is very significant in the field of sports. Concentration is required approximately in all games and sports. In fact, endurance, strength and desire to excel lose their meaning if there is no concentration. For example, when a badminton player displays his concentration his gaze is fixed on shuttle and his energy, tactics and skill produce very good results for him. Some asanas like Vajrasana, Vriksasana, Padmasana and Siddhasana, etc. and pranayama such as Ujjayi, Kapalbhathi, and Bhastrika, etc. are beneficial for the improvement of concentration power.

5

21. Give a brief account of value that can be developed through Olympics.

Ans. Values of Olympic:- The following values can be developed through Olympic Movement in reference to its aim and Objectives. 1) Friendship, 2) Solidarity, 3) Fair Play 4) Free from discrimination etc.

Friendship : Men and women are at the centre of the Olympic Movement, which encourages links and mutual understanding between people. This value refers to building a peaceful and better world through solidarity, team spirit, joy and optimism in sports. The Olympic Games inspire people to overcome political, economic, gender, racial or religious differences and forge friendships in spite of those differences. For athletes, this means forming life-long bonds with their team-mates, as well as their opponents.

Solidarity : Olympic movement also provides ample opportunities to enhance solidarity. It gives a feeling of brotherhood and unity among various nations. It creates cohesion among the participants as nations.

Fair play :In the Olympic ideal, this value refers to giving one's best, on the field of play or in life, without over-emphasising comparative performance yet still being determined to reach one's personal objectives. It is not only about winning, but also participating, and making progress against personal goals, striving to be and to do our best in our daily lives and benefiting from the healthy combination of a strong body, mind and will.

Free from Discrimination :Olympic games gives ample opportunities for participation in respect of caste, creed, religion and race. So it is called as the Olympic Games are free from discrimination.

Respect :This value represents a principle which should inspire all those who take part in Olympic programmes. Respect for oneself and one's body, respect for one another, for the rules as well as for the environment. It refers to the fair-play attitude that athletes should have, and to their commitment to avoid doping. The values of **friendship, Solidarity, fair play, free from discrimination and respect** are the foundation upon which the Olympic movement brings together sports, culture and education for the betterment of human beings. 5

22. Briefly discuss about the Circulatory System of the body :

Ans. Circulatory System: This system comprises of the heart, blood vessels (arteries, veins and capillaries). The Complex network of tubes called blood vessels, (which extends as a network, throughout the body) together with the blood they contain and the heart, make up the Circulatory System. It is called Circulatory System, because it circulates or moves the blood around from the heart to the body's tissues and organs and back to the heart again, ready for its next journey. The entire circuit is completed in the body, as in a circle. Hence, the word circulation.

There are 3 main types of blood vessels in the body :

- **Arteries :**Arteries are elastic tubes that carry the blood from heart to different parts of the body. Generally they carry oxygenated or pure blood except pulmonary artery, which carries oxygen poor blood.
- **Veins :**Veins carry the blood from different parts of the body towards heart. Generally they carry oxygen poor blood or deoxygenated blood except for pulmonary vein, which carries oxygen rich blood. These are less elastic.
- **Capillaries :**Capillaries are the smallest blood vessels and they are the link between the arteries and the veins. The blood is pumped throughout the body by a hollow muscular organ called heart, which is the chief organ of Circulatory System. 5

23. What is doping? Explain the side effects of prohibited substances in detail. (any four)

Ans.Doping is the use of performance enhancing substances or methods by athletes to gain an advantage over their competitors. According to International Olympic Committee, "Doping is the use of any method or substance that might harm the athlete, in a quest to gain an unfair advantage, over his/her fellow competitors". Side effects:- Anabolic steroids having Cardiovascular Effects (elevate the blood pressure and decrease (HDL) High density Lipoprotein), Endocrinal effects (increase aggressiveness, sexual appetite and cause liver tumors, cancer and jaundice) & Psychological effects (mood swings, aggression, depression, disturbance in the personal traits). The prohibited substances like Stimulants increase heart rate and palpitation, Narcotics may cause loss of balance and coordination, Peptide Hormones thickening of the blood clots, Beta-2-Angonists cause trembling, headaches and risk of cardiac arrest, Diuretics may cause dehydration, Glucocorticoids causing weak tendons, muscle turn, Cannabinoids reduce concentration and coordination. (Explain any four) 5

24. What is adapted physical education & explain its principles.

Ans: Adapted physical education is the art and science of developing and implementing a carefully designed physical education program for an individual with a **disability**, to give the individual the skills necessary for a lifetime of rich leisure, recreation, and sport experiences to enhance physical fitness and wellness.

- a) Principles-All students are entitled to a dynamic Adapted Physical Education program.
 - b) The instructional style of the Adapted Physical Education program will accommodate diverse learning styles and the specific needs of our students.
- a) Excellence in Adapted Physical Education teaching and learning grows from a commitment shared by teachers, students, parents, administrators and the community as a whole. b) Physical fitness and activity are essential for lifelong growth and learning.

c) All students will be motivated and encouraged to participate in individual and group activities to provide them with a broad range of health and wellness opportunities - with a direct focus on effort, sportsmanship, and achievement.

(1) Students with disabilities require adapted physical education activities to the limit of their capacity, to meet their physical, mental, social and emotional needs.

(2) Every effort should be made to ensure that the adapted physical education programme is according to the needs and capacities of students.

(3) The equipment, facilities, rules and instructions of an adapted physical education programme should be modified according to the need.

(4) The adapted physical education programme should be physically as well as psychologically sound. 5

25. Discuss "Yoga as an Indian Heritage".

Ans: Yoga means to unite, to join or to concentrate one's attention.

Yoga in Indian Heritage:- History & Yoga is related to Indus Valley Civilization. Where yoga was very popular. Yoga is also mentioned in Mahabharat, Ramayan and Upanishad. Patanjali's yoga Shastra was written more than 5000 years ago. Kabir Das, Tulsi Das & Surdas also mentioned about yoga in their writings. In modern period Swami Vivekananda and Baba Ramdev was a great exponent of Yoga.

Yoga has evolved through various periods in Indian history. These periods are

- a) **Pre-Vedic period:-** The excavation of Mohenjodaro and Harappa, the idols and statues recovered in yogic postures, the language reflects yoga in Indian culture.
- b) **Vedic period:-** The words reflected in Veda indicates the essence of yoga from ancient time.
- c) **Upanishad period:-** The topics of Prana, Nadis discussed in Upanishadic period, Yoga practices, their physiological effects are the example of yoga as an Indian culture.
- d) **Epic period:-** Ramayan & Mahabharat the two Indian great epics reflects the yogic practices, The Hanu, Bhakti and Karma in Bhagwad Gita also reflects the essence of yoga in Indian culture.
- e) **Sutra Period:-** Credit goes to Patanjali. Yogasutra in 147 B.C., eight limbs of yoga, The scriptures related to Buddhism and Jainism, Yogi Mahavir were the examples of yoga as an Indian culture.
- f) **Smriti Period:-** As per the literature the changes in ideas, beliefs, worship and customs, pranayama and other purification techniques used written upto 1000 AD reflects the Indian culture in yoga.
- g) **Medieval Period:-** The two cults of this period Natha Cult and Bhakti Cult shows the popularisation of yoga in these period, Saints were doing yoga in this period, Hathayoga was famous in this period.
- h) **Modern period:-** Swami Vivekananda, Yogananda, Raman Maharshi and Sri Aurobindo and now Baba Ramdev, Govt of India under the leadership of Hon'ble Prime Minister Shri Narendra Modi, celebration of International year of Yoga etc reflects the yoga as an Indian heritage. 5

26. Mention the concept and need of sports environment in detail.

Ans: Concept- Meaning- Sports environment is the conditions and circumstances in which sports persons perform or indulge in sports activities. It means that all the factors or conditions that encourage and promote sports constitute sports environment.

a) **Physical Environment:-** Physical environment of sports includes natural and artificial or man-made environments like playgrounds, Courts, Gyms, Climate, Altitude, Mountains, Stadiums, Sports complexes, Indoor hall, Swimming pools, Sports equipments surroundings etc,

b) **Social environment:-** It affects the sports profoundly, it includes cultural and traditional environments, The religion, philosophy, attitudes, beliefs, assumption, moral and ethical codes, it also includes the attitude, behaviour and beliefs of coaches, officials, spectators and members of others.

The Need – a) For Raising the standard of sports, b) For proper growth and development, c) For avoiding physical health risks, d) For avoiding sports injuries, e) For avoiding Mental health risks, f) for enhancing mass participation, explanation in brief. 5

SAMPLE QUESTION NO.2

1. Define Sports Training

Ans. Sports training :The term sports training denotes preparing of the sportspersons for the highest level of performance. Sports training is the physical, mental, intellectual, psychological and moral preparation of an athlete or a player by means of physical exercises. 1

2. What is the role of IOC

Ans. To develop and protect Olympic Movement and amateur sports. 1

3. What is Psychology?

Ans. Psychology :The science of seeking to describe understand and predict the behaviour of organism. 1

4. What do you mean by Smooth Muscles

Ans. Smooth Muscles :These muscles are also called *involuntary or unstriped muscles*. These muscles are responsible for the characteristic movements associated with alimentary canal. These muscles control and adjust the diameter of blood vessels and the ducts of glandular tissue. These muscles contract without nervous stimulation. 1

5. Discuss „healthy diet“ as a component of Positive Life Style.

Ans. Healthy diet:- Healthy diet or good nutrition is one of the main components of positive life style. In fact, a healthy diet or good nutrition is necessary to lead a healthy or positive lifestyle. The healthy diets mainly fresh fruits and vegetables, whole grain foods and low fat dairy products are required to maintain the adequate amount of vitamins, nutrients and minerals needed to maintain a healthy body. 1

6. Define adopted physical education?

Ans. A diversified programme of developmental activities, games or sports suits to the interest of the students with disabilities in the general physical education programmes.

7. Define the term Biomechanics in your own words.

Ans. It is a combination of two words Bio & mechanics – life and study of movements. The study and analysis of human movement patterns in sports is called Biomechanics. 1

8. What do you mean by Training

Ans. Training :The word ‘Training’ means ‘the process of preparation for some task’. This term is widely used in sports. This process invariably extends to a number of days, months and years. 1

9. What do you mean by Integrated Physical Education?

Ans. Integrated Physical Education:- Integrated physical education is a comprehensive concept. It is not only limited to physical activities, games and sports but has become a complete discipline. It is having various subdisciplines such as sports sociology, sports biomechanics, sports medicines, exercise physiology, sports management etc. it encourages health factors, considers safety means, promotes moral values and discipline, prepares a lesson plan, effective teaching methods, new relationships etc. 1

10. Why we have Hypertension and stress?

Ans. Hypertension and stress are the results of (a) fast life, (b) competition, (c) economic and social pressures and (d) lack of physical activities. The promotion of games, sports and recreational activities can help solve such problems. 1

11. Mention the effects of Narcotics on human body.

Ans. Narcotics are pain killers which make people slow and sleepy. The effects of these drugs are like slow response, decline in activity, addiction etc. **Examples :** Morphine, opium, heroin, cocaine etc. 1

12. Briefly explain any three elements of Yoga?

Ans. Elements of Yoga :There are eight stages of Yoga to secure purity of body, mind and soul. These are (i) Yama, (ii) Niyama, (iii) Asana, (iv) Pranayama, (v) Pratyahara, (vi) Dharana, (vii) Dhyana, (viii) Samadhi. (Explain any three) 3

13. Narrate any three side effects of the Prohibited Substances?

Ans. (a) Increase the heart rate; (b) cause cancer; (c) Infertility;
(d) decrease in sexual power; (e) hypertension. (Explain any three) 3

14. Explain any three factors affecting Physical Fitness and Wellness?

(a) Genetic or hereditary (b) Environment
(c) Proper diet (d) Regular exercise. (explain any three) 3

15. Mention the different categories of Men and Women. 3

Ans.

Category	Men	Women
Underweight Range	Less than 20	Less than 19
Healthy Range	20 to 25	19 to 24
Overweight Range	26 to 30	25 to 30
Obese Range	More than 30	More than 30

16. Mention the effects of Exercises on Skeletal System.

Ans. **Effects of Exercise on Skeletal system :** As a result of exercise, bones have to be moved to various positions. These movements are made possible due to the provision of joints in the body. Therefore, during exercise the joints have to bear a lot of stress, which puts a lot of strain on its ligaments that exert a binding force and the cartilages, which are the paddings in between the bones. This strain is borne by the ligaments and cartilages up to a certain limit but when the strain exceeds a limit, these get injured. Excessive strain can also cause the fracture of a bone. Due to the injury of ligaments or cartilages or both ligaments and cartilages, the malfunctioning of the joints takes place. It leads to pain and swelling in the area. If this malfunctioning is allowed to continue for a long time, it can lead to a deformity of the joint. 3

17. Elaborate the types of lever & their application in sports.

3Ans: Class 1 - The fulcrum lies between the effort and the load. Example- Seated dumbbell triceps extension

Class 2 - The fulcrum is at one end, the effort at the other end and the load lies between the effort and the fulcrum. Example- Standing heel lift. Class 3 - The fulcrum is at one end, the load at the other end and the effort lies between the load and the fulcrum. Example- Seated biceps curl. 3

18. Briefly discuss the various developmental characteristics during childhood.

Ans. **Developmental characteristics during childhood :**

(i) **Physical development :** In early childhood teeth start falling and permanent teeth start growing. Growth of girls is more than boys in this period. Increase in height is slow because muscles and bones are developing.

(ii) **Intellectual development :** By the time the child is 12 years he develops language skills. One starts thinking, reasoning, remembering etc. keenly observes others. Interest in various things keeps on changing and exhibits love towards nature.

(iii) **Emotional development :** They become more stable emotionally. At this stage sentiments and complexes are formed. Child is innocent and remains under control. They start feeling conscious of their act.

(iv) **Social development :** Develops a good and bigger circle of friends. He loves to play with his peer group. They develop more interest in team games and love playing in their own groups. 3

19. Value based:-

During 1972 Munich Olympic Games 11 players of Israel were shot dead ruthlessly, during 1936 Berlin Olympics Adolf Hitler refused to honour Jasse Owens, the negro athlete who got four gold medal in that Olympic and 3 Olympic games were not held due to World wars. In reference to these happenings of Olympics answer to the following questions.

- a) Which are the values of Olympic are hampered in these cases
- b) Which difference was still exists in spite of all trials by the leading countries of world and global leaders.
- c) What is your message to the sporting arena in this context.

Ans:a) Free from Discrimination & Friendship, b) Racial differences, c) to take steps to bring the world under one roof. Or any other related message. 3

20. Define Modern Olympic movement & explain its core values . 5

Ans:Olympic movement-As is clearly defined in the Olympic Charter, *“The goal of the Olympic Movement is to contribute to building a peaceful and better world by educating youth through sport practised in accordance with Olympism and its values.* The Olympic Movement is composed of three main constituents: the International Olympic Committee (IOC), the International Sports Federations (IFs) and the National Olympic Committees (NOCs).

Values of Olympic movement- Excellence: This value stands for giving one's best, on the field of play or in the professional arena. It is not only about winning, but also about participating, making progress against personal goals, striving to be and to do our best in our daily lives.

Friendship: This value encourages us to consider sport as a tool for mutual understanding among individuals and people from all over the world. **Respect:** This value incorporates respect for oneself, one's body, for others, for the rules and regulations, for sport and the environment. Related to sport, respect stands for fair play and for the fight against doping and any other unethical behaviour.

Non-Discrimination. The Olympic Movement strives to ensure that sport is practised without any form of discrimination whatsoever. **Solidarity.** The Olympic Movement is committed to developing programmes that, together, create a meaningful and comprehensive social response to issues within its sphere of influence.

Fair Play:- Fair play is based on justice. There should be justice to each player as well as team. There should not be any favour or inclination towards a team. Rules and regulation must be applied fairly to each team. 5

21. Narrate the Aims and Objectives of CBSE Sports Programme

Ans.(a) Aim and Objectives of CBSE Sports :(1) To organize such other activities as may be conducive to the aim and objectives of the sportscommittee as mentioned above.

(2) To organize orientation refresher and training programmes for Physical Education Teachers.

(3) To raise the general standards of sports and games prevailing in the schools and to work forthe development and values through sports among the students.

(4) To encourage sportsmanship and to promote friendly relations among the schools.

(5) To organizer inter-school tournaments and competitions in the sports and games recognizedby the CBSE.

(b) Organising the National Level Sports and Games :The organising school of the national championship will be responsible for conducting the tournamentin the best possible manner. The organising school will send the complete and detailed informationabout the national championship to all the cluster. Zone level organising schools well in advance,so that the qualifying schools coming to participate in the nationals are fully aware of the venuedetails and other relevant information about it. The schools hosting national level competitionsare permitted to participate directly at that level in that particular discipline and hence need notparticipate at the lower levels of the competition. Only one team/player shall be eligible for directentry from the host school. In case of athletics, swimming and table tennis, a large number ofstudents participate at national level. So keeping it in view, the nearby school can act as a co-host.Though the competition will be held at the same single venue but the boarding and lodging facilitieseither for girls or boys will be provided by the co-host school.

© **Organising the Cluster/Zonal Level Sports and Games :**Each cluster/zone organising school will send a detailed circular intimating all the details at leasta month before the commencement of a tournament. Immediately after the competition is over,the complete information will be sent to the AEO (Sports), CBSE regarding the address of thequalifying schools/athletes. 5

22. Mention in detail of the structure of Heart with figure

Ans.Structure of Heart :The heart is a muscular conel-shaped organ about the size of a clenched fist of the same person. Itis located in the upper body (chest area) between the lungs, and with its pointed end (called theapex) downwards, forwards, and pointing towards the left. The heart is a pump consisting of fourchambers. It is vertically divided into two halves (left and right) by a septum. Each half is furtherdivided into upper and lower halves, which communicate through atrio-ventricular valves. Thetwo upper chambers are called atria

(singular-atrium) and the two lower chambers are called ventricles. The main purpose of the heart is to pump blood around the body. (*Draw a figure of the Heart for another 4 marks*) 1+4=5

23. Place your views on the development of physical education in post independence era.

Ans: a. Organisation of first Asiad games at New Delhi in 1951 in post independence era.

- i) Government of India realized the importance of physical education or physical activities for the people and an important step in that direction was the establishment of a Committee which was named —“Tar Chand Committee”.
- ii) Central Advisory Board was being set up in the year 1950 to provide training to athletes in various games and sports, some special kinds of schemes were being introduced by government of India.
- iii) Sports Talent Search Scholarship scheme was introduced by government of India in the year 1970-71
- iv) All India Council of Sports was setup in 1954. Formation of National Institute of Sports at Patiala in 1961.
- vi) Coaching Scheme for Games and Sports suggested by Raj Kumari Amrit Kaur was started in 1953.
- vii) National Physical Fitness Drive (1959). & National Institute of Sports (1961).
- viii) Organisation of Asid Games in 1982 & Common wealth Games in 2010 at new Delhi. 5

24. Discuss the prevention and management of obesity in detail.

Ans: Prevention of obesity - A. Exercise related Preventive Measures B. Diet-related Preventive Measures

A. Exercise related Preventive Measures :- Regular Physical Exercises, Yogic Exercises, Resistance Exercises

B. Diet-related Preventive Measures :- Avoid Fatty Foods, Avoid low calorie Diet, Avoid over eating etc.

- a. Encourage children to eat only when hungry, and to eat slowly.
- b. Avoid using food as a reward or withholding food as a punishment.
- c. Serve at least five servings of fruits and vegetables daily.

Management: Encourage children to drink water rather than beverages with added sugar, such as soft drinks, sports drinks and fruit juice drinks. (explain these Points in detail) 5

25. Explain in detail the Functions of Muscular System

Ans. Functions of Muscular System : Muscular system is just like a machine which converts chemical energy into mechanical energy. As we are well aware that there are three types of muscles in our body viz. skeletal muscles, smooth muscles, and cardiac muscles. Each type of muscle performs specific function in our body. Along this, there are two types of skeletal muscle fibres in a human body namely, red fibres and white fibres. They are also called slow twitch fibres and fast twitch fibres respectively. These fibres also have different functions. The various types of muscles and fibres perform the following functions :

1. Big muscles provide protection to the bones.
2. Some muscles help in increasing the range of movements.
3. Muscles also provide shape to the human body.
4. The two types of skeletal muscle fibres i.e. slow twitch fibres and fast twitch fibres perform different types of functions. Slow twitch fibres contract at a slow rate. These fibres play vital role in endurance activities or aerobic activities, such as in cross country race or long distance races. The fast twitch fibres contract at a fast rate. These fibres produce explosive power. These fibres perform fast repetitive contraction. These fibres are used in 100 M race or sprint races, high jump, weightlifting, basketball and football, etc. These fibres play vital role in performing anaerobic activities.
5. Smooth muscles are concerned with the movements of internal organs, such as those of the stomach, intestines, visceral and blood vessels.
6. Cardiac muscles perform pumping action of the heart.
7. Skeletal muscles provide the force for movement of the skeletal system. These muscles perform movements at our own will.
8. Muscle contractions usually carry out one of the two things—either they maintain a posture or they cause movement. 5

26. Discuss the principles involved in Physical Activity Environment.

Ans. Proper environment for a beneficial physical activity is required. So that we should follow various principles which are required for proper physical activity environment. The principles to be followed:- location of the place of physical activity, Polluteless environment for physical activity, Proper facilities for physical activities, Proper playgrounds and courts, Proper climatic conditions, Existing infrastructure should be well-

maintained, Physical activity environment should be safe and clean, Drugs free environment, Physical activity environment should be attractive and enjoyable, Good social environment. (Explain any five) 5

SAMPLE QUESTION NO. 3

1. Write a short note on modern Olympics. 1

Ans. When the ancient city of Olympia was excavated, Coubertin started to campaign for the revival of the Summer Games as an international event. His views were accepted and the modern Olympics were born in 1896. This also marks the birth of the Olympic Movement

2. Mention the full form of SAI& the year of its establishment.

Ans. Sports Authority of India& 1984 1

3. What is the aim of Physical Education

Ans. The aim of physical education is to influence the experiences if persons to the extent that each individual within the limits of his capacity may be helped to adjust successfully to society, to increase and improve his wants and to develop the ability to satisfy his wants. 1

4. What do you mean by Swadhyaya?

Ans. To study the great Vedas, granths, Upanishads, yogdarshan and gita with devotion is called swadhyaya. 1

5. What is Diet control?

Ans. It means the proper proportionate of diet to provide energy to the body. It is to avoid and minimize fatty food, over eating, taking of healthy and hygienic food etc. 1

6. Define circulatory system

Ans. It consists of blood, blood vessels heart etc. It provides fluid movement in body. 1

7. What do you mean by Mechanism of Respiration?

Ans. Mechanism of respiration is a process by which the lungs expand to take in air and after that contract to expel the air outside. 1

8. What is drug abuse?

Ans: Drug abuse, is a patterned use of a substance (drug) in which the user consumes the substance in amounts or with methods which are harmful to themselves or others. 1

9. What do you mean by wellness

Ans. The scientific meaning of wellness is the state of being healthy and free of diseases. Wellness is defined as the optimal functioning of body and creative adapting to environment that involves the whole person. 1

10. What do you mean by doping?

Ans. Doping may be defined as the introduction of artificial substances or drugs into the body to improve performance and gain advantages. 1

11. Define heart rate.

Ans. Heart beats per minute of an individual is called his heart rate. The heart rate of an individual depends on many factors such as (a) age, (b) postural changes, (c) emotions and (d) as a result of exercise. 1

During exercise it varies with (i) the type of exercise, (ii) intensity of exercise.

12. Explain any three importance of Meditation in Sports

Ans. Importance of meditation in sports :

- (1) It helps to increase concentration and focusing of thoughts or goals.
- (2) Eliminates stress and anxiety.
- (3) Gives relaxation to body and mind. (4) Helps in controlling our thoughts and behaviour.
- (5) Helps in stabilizing cardio - respiratory and autonomic activity of individuals.
- (6) Constant practice of meditation helps one to control anger/aggression.
- (7) Eliminates unwanted, undesirable and destructive thoughts appearing in mind so that a calm and health state of mind is achieved.

13. Briefly explain any three components of positive life style.

Ans: To remain healthy and to have good physical and mental health a number of things must be followed properly- **The Components:-** Healthy diet, Physical activity, Stress management, Socialization, Personal hygiene, Proper sleep, Balance in life. Safe environment. (explain any three) 3

14. Explain in detail the Load, Adaptation and Recovery

Load:- In the field of sports the load is known as training load, a training load is the work or exercise that a sports person performs in a training session. In other words it can be said that training load is the psychological and physiological demands put on the organism through movement resulting in improvement or maintenance of performance capacity. **Adaptation:-** Adaptation is the process of long-term adjustment to a specific stimulus. Adaptation refers to your body's physiological response to training. Adaptation occurs during the recovery period after the training session is completed. When you do new exercises or load your body in a different way, your body reacts by increasing its ability to cope with that new load. **Recovery:-** Recovery is to regain what was lost. Recovery is an essential part after exercise or training load. **The process of stimulus-recovery and adaptation:-** The general adaptation takes place inside the body all the time. For improving the sports performance, the Training load has to be increased. Fatigue during the training is another cause of lack of adaptation. In fact it is actually a process of intentionally repeating stimuli (exercise) which results in recovery-adaptation, which avoids over-training. 3

15. Explain the breathing process in the human body

Ans. The Process of Breathing : Breathing involves the ribs, the intercostal muscles, lungs and the diaphragm. Breathing process is carried out in two phases :

- Inhalation or Inspiration
- Exhalation or Expiration.

Inhalation : To make inhalation possible the intercostal muscles contract and lift the ribs upward and outward. The diaphragm muscle also contracts and flattens. These movements increase the size of chest cavity; as a result the pressure inside the lungs decreases. As the pressure outside the lungs is greater, the air moves into the lungs. **Exhalation :** When breathing out, the muscles relax, the ribs go back to their normal unexpanded position, and the diaphragm springs back into place. With the chest activity back to its normal size, the pressure inside the lungs increases and is greater than the atmospheric pressure. As a result the air moves out of the lungs through nose or mouth. 3

16. Explain the principles of sports training.

Ans: a. Principle of continuity- it should be continuous, regular, and should not be long period of inactivity. Interval between two training sessions should not be too long.

b. Principle of individual difference- As each person differs in their shape & size so also working ability. So the load factor of each one must be as per the suitability and standard of the person.

Other related points like- Principle of overload, Principle of use, Disuse, Principle of variety, principle like of warm up & cool down etc. 3

17. Why meditation is required for a human being

Ans. Meditation is a process of complete constancy of mind. It is a stage prior to Samadhi. Generally, dhyana remains attached to our life at every moment. Whenever we perform any specific task in the family it is usually advised to do that task with 'dhyana' (*Dhyan se Karana*). But we do not understand its appropriate meaning. In fact, dhyana is a complete concentration of mind over a period of time without any divergence. 3

18. Narrate the importance of physical fitness and wellness

Ans. Physical fitness : It is the ability of an individual to carry out his daily routine or without getting tired and having extra amount of energy to meet any kind of unforeseen emergency.

Physical fitness and wellness is required for proper growth and development. It enables the body's physiological systems to function more efficiently and smoothly. Physical fitness is not only one of the most important keys to a healthy body but also the basis of dynamic and creative intellectual activity.

(i) It improves the quality of life. In our daily life a physically fit person can manage the routine work efficiently and without getting fatigued.

(ii) It helps in the prevention of cardiovascular diseases. A physically fit person is less prone to coronary heart diseases. (iii) It improves the efficiency of the cardiovascular system. (iv) Helps in harmonious growth and development. (v) Fulfills proper nutritional requirements. (vi) It helps in better management of stress and tension.

3

19. Value Based:-

Ans. In a Hockey match two forward players scoring equal no. of goals both of them want to become the best scorer. In the last minute when one of the forward player gets an opportunity to put the ball in the goal. Suddenly to everyone's surprise he passes the ball to the other forward player of his team for taking the opportunity to score.

a) What does this action of passing on the opportunity to another player depict?

Ans. The spirit of Sportsmanship.

b) What values the player taught through this action?

Ans. It conveys the message that team is above the individual or player performance.

3

20. Explain any five career options available in Physical Education

Ans. **Physical Education and Career Options :** The careers related with Physical Education are outlined as under :

(a) **Athletic Coach :** Organize, instructs, and teaches amateur and professional athletes fundamentals of individual and team sports.

(b) **After school/Summer program Co-ordinator :** Responsible for administration of program and activities run at that time. Job responsibilities are similar to that of a Principal of an Institution.

(c) **Athletic Director-College/University :** Responsibilities similar to the Head of the Department of Physical Education or an Administrator.

(d) **Activities Director :** Responsible for a recreation program's daily operation, primarily organize and direct participants.

(e) **Community/Commercial Recreation :** Organize and direct leisure activities and athletic programs for employees of all ages.

(f) **Cardiovascular Fitness Instructor :** Conduct group exercise sessions that involve aerobic exercise, stretching, and muscle conditioning. The care of Cardiac Rehabilitation.

5

21. Motion plays a vital role in Games and Sports - Explain

Ans: (a) **Laws of Motion :** The laws of motion that have great bearing in sports activities are known as Newton's Laws of Motion. These are :

(i) A body continues to remain in its state of rest or of uniform motion in a straight line unless it is compelled by force to change that state.

(ii) The acceleration produced in a body is proportional to the force applied.

(iii) For every action, there is always an equal and opposite reaction.

(i) Running around a curved athletic track or a dodging technique in Kho-Kho or Basketball depends upon the successful application of the first law of motion as stated above.

(ii) The second law indicates that a greater force is required to reach a certain speed in a given time if one starts from a stationary position than when he is already in motion. This law is applicable in relay races while exchanging batons in exchange zones. It points to the need for an early start by an exchange runner.

(iii) As a consequence of the third law of motion, a runner is required to push his feet against the ground with great force in order to get a similar forward propulsive force.

5

22. What is health related fitness and discuss its components.

Ans. Health related physical fitness is important for all the people throughout the life. Its main aim is to achieve and maintain those specific qualities which enhance the working efficiency of the individual and his standard of health. It can be done through proper nutrition, regular and proper physical activities, effective stress management, control and prevention of diseases and by getting rid of harmful health related habits such as smoking and drinking. – The components are – Cardiovascular endurance, Muscular Strength, Muscular Endurance, Flexibility, Body composition etc. Explain the points.

5

23. Explain in detail the Role of Yoga in development of Physical Fitness

Ans. Yoga is derived from Sanskrit word 'Yuj' which means union or to join. It means the unification of atma with Parmatma. Yoga is a true union of our will with the will of God. It is a method by which one obtains control of one's latent powers. It makes the organs of our body active in their functioning and has good effect on internal functioning of the body. We can define yoga as 'checking the impulse of mind' according to Patanjali. It was Patanjali's Yoga Sutras who refined and systematized yoga. Modern men have adopted yoga to gain peace in mind which ultimately leads to good health and fitness.

Role of Yoga in Physical Fitness : The prolonged practice of yoga leads the student to a sense of peace with his/her environment. Asanas cater to the needs of every individual according to his physical condition and capacity. Various effects of yoga on individuals are stated below :

(1) **Improvement in Concentration Power :** The concentration power is very significant in the field of sports. Concentration is required approximately in all games and sports. In fact, endurance, strength and desire to excel lose their meaning if there is no concentration. For example, when a badminton player displays his concentration his gaze is fixed on shuttle and his energy, tactics and skill produce very good results, for him. Some asanas like Vajrasana, Vrikshasana, Padmasana and Siddhasana, etc. and Pranayama such as Ujjayi, Kapalabhati and Bhastrika, etc. are beneficial for the improvement of concentration power.

(2) **Improvement in the function of Respiratory System :** Generally, it is observed that an individual uses one-sixth of the full capacity of the lungs. If the complete capacity of the lungs is brought into proper use it can give best results. By doing Pranayama, the lungs' capacity can be increased which is always beneficial for sports activities related to endurance. Research studies have shown that Pranayama is extremely beneficial for swimmers. The various forms of Pranayama, i.e., Ujjayi, Sheetkari and Bhastrika enhance the function of respiratory system. It also increases will power and vital air capacity of the individual.

(3) **Improvement in Skeleton System :** Research studies have also shown that various yogic exercises enhance the strength of cartilages and ligaments to bear the maximum stress. These yogic exercises also increase the flexibility of joints. These changes are beneficial in various sports activities. These yogic exercises are specially significant in gymnastics, diving and swimming, etc.

(4) **Prevent Sports Injuries :** Sports persons have a tendency to get injuries such as sprain, strain, muscle cramp or rupture and fractures, etc. Such injuries can be prevented by practice of yogasanas. Therefore, yogasanas should be performed during warming-up or in conditioning period for preventing sports injuries. **5**

24. Discuss the Types of Ergogenic Aids

Ans. Mechanical & Pharmacological Aids, Nutritional & Physiological Aids, Psychological Aids, Safe Ergogenic aids (Proper Nutrition, Carbohydrate Loading, Stress Management), Harmful ergogenic aids (Blood doping, Human Growth Hormone, Anabolic steroids). Explain the points referring the text book. **5**

25. What are the Effect of exercise on Muscular System :

Ans: Following changes in our muscular system can be seen if exercises are done on regular basis :

(1) **Efficiency in the Movements of Muscles :** The movements of muscles become efficient and smooth. The movements during different activities become attractive.

(2) **Change in Shape and Size of Muscle :** Through regular exercise, the shape and size of muscle is changed. In fact, cells of muscles are enlarged which change the shape and size of muscle.

(3) **Delay Fatigue :** Regular exercise delays fatigue. The fatigue is mainly due to formation of carbon dioxide, lactic acid and acid phosphate. The accumulation of CO₂, acid phosphate and lactic acid becomes less in an individual who performs exercise regularly. Hence, fatigue can be delayed if exercises are performed daily.

(4) **Improves Reaction Time :** Due to regular exercise, the speed of nerve impulses increases which ultimately improves the reaction time. These nerve impulses move very quickly through motor nerves from nervous system to muscle fibre. Owing to this the reaction time improves.

(5) **Body Posture Remains Correct :** By doing exercise regularly, the strength of muscles increases, which in turn, keeps the body posture in correct position. The postural deformities do not occur. If there is any physical deformity, it is removed by doing regular exercise. **5**

26. Discuss the behavior change Technique for Physical Activity

Ans. Behavioural factors matters a lot in the physical activity and games and sports. The changes in behavioural process having a positive impact in the day to day life of the person. The Techniques - Self monitoring, Goal Setting, Corrective Feedback, Boosting Performance. (Explain the points in detail) 5

-X-

SAMPLE QUESTIONS NO.4

1. Elucidate the term measurement in sports. 1

Ans. Measurement is the way of test & techniques to collect information about a specific skill or fitness level of an individual. It is a way of evaluation that records an individuals response in specific units of measurements.

2. What is muscles? 1

Ans. It is a small fibrous tissue that attaches to bones. The numerous designs of muscles and tendons are the foundation of all voluntary movements. It is of two type voluntary & Involuntary muscles.

3. Define the term sports psychology? 1

Ans. It involves the study of how psychological factors affect performance and how participation in sport and exercise affect psychological and physical factors.

4. Define somato type in your own words. 1

Ans: The structure or build of a person, especially to the extent to which it exhibits the characteristics of an ectomorph, an endomorph, or a mesomorph. The terms somato type is used in the system of classification of human physical types developed by U.S. psychologist W.H. Sheldon.

5. What do you mean by limbering down 1

Ans: a. Helps your heart rate and breathing to return towards resting levels gradually.
b. Helps to remove waste products from muscles, such as lactic acid, which can build up during vigorous activity (lactic acid is most effectively removed by gentle exercise rather than stopping suddenly)

6. What is centre of gravity ?

1Ans: The point in any solid where a single applied force could support it, the point where the mass of the object is equally balanced. The center of gravity is also called the center of mass.

When a man on a ladder leans sideways so far that this center of gravity is no longer over his feet, he begins to fall.

7. What do you mean by learning ?

1Ans: Learning is a process, not a product. Learning is a change in knowledge, beliefs, behaviors or attitudes.

It is not something done to students, but something that students themselves do.”

8. Explain the functions of heart? 1

Functions: a. The function of the heart is to maintain a constant circulation of blood throughout the body. B- It acts as a pump and its action is composed of a series of events known as the 'Cardiac Cycle'. C -In human beings, when the heart is beating normally, the cardiac cycle occurs about 74 times per minute. D- The heart pumps about 6 quarts (5.7 liters) of blood throughout the blood.

9. Define gene doping in sports.

1Ans: Gene doping or transfer is based on the principles of gene therapy. Here a healthy gene is transplanted into cells or directly into the genome to replace a mutated or absent gene. This process of gene doping, in the future, is likely to be used by athletes in an attempt to improve the function of normal healthy cells

10. What is passive warm up?

1Ans: In passive warm-up the body temperature is usually increased by some external means, such as wearing heavy apparel, like a sweatshirt, steam bath or consume hot drinks. One of the advantages of using a passive means of warm-up is that energy is not expended in the warm-up activity.

11. Mention the side effects of prohibited substance in sports. 1

Ans: Side effects of anabolic steroids-

Psychological effects-Misusing anabolic steroids can also cause the following psychological effects like-aggressive behaviour, mood swings

Physical effects-reduced sperm count, infertility, increased risk of prostate cancer

12. Discuss any three rehabilitation procedure through exercise.

3

Ans: a. Shoulder exercise-covers the exercises and general approach to shoulder rehabilitation. Exercises for the rotator cuff muscles, deltoid muscles and other muscles which support and surround the joint are covered.

b. Knee, hamstring & thigh-exercises cover early, middle and late stage exercises for rehabilitation from thigh injuries including hamstring strain exercises, quadriceps strain as well as jumpers knee.

c. Lower leg & Ankle exercise-involve rehabilitation exercises for the calf muscles, Achilles tendon injuries and ankle including ankle sprains.

13. Explain the laws of motion with specific reference to sports

3

Ans: 1st law: "An object in motion will remain in motion unless an external force acts upon it. "

Ex-In Soccer ,a ball is kicked, if not for the friction of the grass or another player's foot, the ball would continue on forever.

2nd law: " $F = ma$; acceleration is proportional to force and inversely proportional to the mass of the accelerated object ."

Ex-When driving a car ,the acceleration of the car is proportional to the force exerted by the tires, and inversely proportional to the mass of the car.

3rd law: "For every action there is a equal and opposite reaction."

Ex- Dribble a basketball, the ball collides with the floor, and then the floor exerts a force on it propelling it back into the air.

14. Find out any three characteristics of childhood stage.

3

Ans: a)Walking and Running-As an infant, baby will learn to roll over, sit up, crawl and pull to a standing position. It's all leading to his first steps, which will occur around his first birthday.

b.Fine motor skills-The small muscles of the hand develop during the early years, which is called fine motor development. Babies use their fingers and hands as they pick up small pieces of food .

c. Curiosity- is the driving force behind most learning that young children do. As an infant, little one will crawl to the objects in his environment that interests him -- even if those are untouchable.

15. Discuss the Roles of Yoga in sports :

Ans: Yoga and sports are often seen in opposition. Yoga is for practice whereas sports emphasis is placed upon training. Yoga is an excellent exercise for the body, mind and soul and helps sports-persons to become more agile, stronger and focused. The prolonged practice of yoga leads the student to a sense of peace with his/her environment. Asanas cater to the needs of every individual according to his physical condition and capacity. Following points justify the role of sports :

(1) **Stimulates and changes emotional attitude** :Yoga has a major relation to have control on our emotions. In the field of games and sports if a player does not have control over his emotions he fails to give out his actual performance. He is not adjusted to outside environment, hostile crowd, spectators which directly affects his performance level. With the help of Yoga one learns to have patience and have control on one's emotions which results in courage, positive thinking and mental equilibrium.

(2) **Helps you feel relaxed** :A regular practice either before or after sports and games helps you to feel relaxed, at ease and happy. After vigorous workout an individual feels tired and his muscles are stressed and strained. We can overcome fatigue with the help of yoga asanas by relaxing body and mind.

3

16. Briefly explain the Oxygen debt and Second Wind.

Ans:Oxygen Debt:- means when the demand for oxygen is greater than the supply. It means that when your body works hard you breathe a lot of oxygen but you cannot absorb enough to cope with the level of activity. The ATP (Adenosine Triphosphate) is the source of energy for muscular contraction. There are three main sources, which provide a continual supply of ATP, 1. Creatine phosphate, 2. Glycolysis, 3. Oxidative phosphorylation (Citic acid), When we start exercise during the few seconds of muscular contraction the reserved ATP is used immediately, During this period ADP(Adenosine diphosphate) level increase. If oxygen

supplied to muscles become exhausted (during heavy muscular activity), the pyruvic acid formed in glycolysis is converted to lactic acid. The accumulation of lactic acid in the muscle causes fatigue. At this stage muscle is in oxygen debt. A complete rest helps in removing oxygen debt. During the rest, ATP is again stored in the muscles for activities. Generally lactic acid is removed approximately in one hour if cooling down is performed properly. It may also take two hours or more if cooling down is not done with gently exercises.

Second Wind.- When we usually do vigorous activities or long time activities after sometime we feel a sense of discomfort like Breathlessness, pain in chest, headache pain in the muscles, which are involved in that activity, feeling of dry throat etc. We think that activity should be stopped immediately, But if we make up our mind to continue and continue that activity then we feel relaxation and comfort. This stage is termed as second wind. So the phenomenon of recovery from discomfort at early stage is known as second wind. It usually happens with the beginners not with the experienced athletes.

Changes in our body due to second wind.-Breathlessness Disappears, Muscles become Normal, Changes in blood circulation system etc. can be explained briefly.

17. Mention how smoking affects the human Body

Ans.(a) Regular and heavy smoking increases the heart rate which leads to the palpitation of heart.

(b) Heavy smoking is the major factor causing lung cancer, cancer of the mouth and tongue.

(c) Smoking habit leads to chronic bronchitis.

(d) Smoking may also cause coronary artery disease.

(e) Cigarette smoking is a leading risk factor for the cancer of oesophagus, stomach, pancreas and the cervix.

(f) Cigarette smoking by pregnant women has a harmful effect on the foetus in the womb. 3

18. Outline the organization and constitution of CBSE Sports Programme

Ans. Organisation and Constitution of CBSE Sports :

(1) The chairman, CBSE shall be the chairman of the sports committee.

(2) The headquarters of the sports committee shall be the Central Board of School Education, Delhi.

(3) For ensuring the smooth and efficient conduct of Inter-school Sports and Games, the activities are organised under the general directions of the CBSE and in conformity with its policies.

(4) CBSE organises the sports and games tournament at cluster level, zonal level and national level in various sports and games annually. 3

19. Value Based:-

Ans. Sunny is a good shot putter. His height was 5 feet 6 inches with a body weight of 75 kg. His body was muscular. He used to put the shot with Perie O' brien technique. For the last one year his performance was stable even after his best efforts. He met our new physical education teacher to discuss about the root cause of his problem. He saw his technique of putting the shot. He was not satisfied with his technique. He suggested that this technique is not suitable for the shot statured individual. He told him to practice disco-put technique instead of Perie O' brien technique. Approximately, after 6 months' practice his performance was improved by 1.70 metre. In this way, biomechanics helped him a lot.

Based on the above passage, answer the following questions:

1. What qualities did sunny possess?

2. Which part of the Bio-mechanics applied here

3. What values of the new physical education teacher did impress you?

Ans:- 1. Learning attitude & hard work, 2. Projectile and moment speed ,

3. Application of skill in a perfect method and the response to the student with an attitude of learn.

20. Define warm up and find out the physiological benefits of warm up. 1+4

Ans: A warm-up generally consists of a gradual increase in intensity in physical activity, [joint mobility](#) exercise, and [stretching](#), followed by the activity. Warming up brings the body to a condition at which it safely responds to nerve signals for quick and efficient action.

Increased speed of contraction and relaxation of warmed muscles

Dynamic exercises reduce muscle stiffness

Greater economy of movement because of lowered viscous resistance within warmed muscles

Facilitated nerve transmission and muscle metabolism at higher temperatures; a specific warm up can facilitate motor unit recruitment required in subsequent all out activity

Increased blood flow through active tissues as local vascular beds dilate, increasing metabolism and muscle temperatures, Allows the heart rate get to a workable rate for beginning exercise

Mentally focused on the training or competition.

21. Write short note on Olympic Oath, Olympic motto, Olympic Symbol/Flame, & Olympic flag. 5

Ans: Olympic oath-"In the name of all the competitors, I promise that we shall take part in these Olympic Games, respecting and abiding by the rules which govern them, committing ourselves to a sport without doping and without drugs, in the true spirit of sportsmanship, for the glory of sport and the honor of our teams."

Olympic motto- The Olympic motto is made up of three Latin words - **Citius - Altius - Fortius**. These words mean **Faster - Higher - Stronger**. It was the Dominican priest Henri Didon who first expressed the words in the opening ceremony of a school sports event in 1881. Pierre de Coubertin, who was present that day, adopted them as the Olympic motto.

Olympic Flame- The tradition of lighting an Olympic Flame comes from the ancient Greeks. During the Ancient Olympic Games, a sacred flame was lit from the sun's rays at Olympia, and stayed lit until the Games were completed. This flame represented the "endeavor for protection and struggle for victory." It was first introduced into our Modern Olympics at the 1928 Amsterdam Games. Since then, the flame has come to symbolize "the light of spirit, knowledge, and life."

Olympic Symbol/Emblem-It comprises of five interlinked rings or circles to represent the sporting friendship of all people, the rings also symbolise the five continents *i.e.*, Africa, America, Asia, Australia and Europe. Each ring is of a different colour *i.e.*, blue, yellow, black, green and red. the colour of each ring was proposed by be Coubertin himself.

The colours of the rings represent the following continents :

1. Blue ring represents America continent.
2. Black ring represents Africa continent.
3. Red ring represents Australia continent.
4. Yellow ring represents Asia continent.
5. Green ring represents Europe continent.

The Olympic motto is inscribed under the emblem which consists of three Latin words :

CITIUS (Faster), ALTIUS (Higher), FORTIUS (Stronger)

In the literal meaning, the words represent the athletic goals—running faster, jumping higher and throwing farther. (A figure can be made for a better answer)

Olympic Flag- The flag was designed by Pierre de Fredy, a French man, who took about one year to complete it and made of White silk Background indicates peace, prosperity, progress contains 5 interconnected rings , represents the 5 continents. The colours of the rings are Blue, black, red, yellow, green, represents America, Africa, Australia, Asia, Europe. Citius Altius and Fortius to be written. Created in 1913 by Baron Perie de Coubertin, solemnly inaugurated in Paris in 1914, hoisted first time at the 1920 Antwerp Olympics.

22. Define Human Anatomy & find out its importance in Physical education. 1+4

*Ans:*Anatomy (from the Greek word **anatome,"dissection"**), is a branch of natural science dealing with the structural organization of living things. It is an old science, having its beginnings in prehistoric times. dissection of all or part of an animal in order to study its structure. Anatomy is the study of structure of human body. It explains all the details related to human structure. In other words, every one must study anatomy in order to live a healthy life.

Importance-

- a. The study of anatomy and physiology are essential to know physical education and sports from scientific point of view.

b. A sport trainer should have an ample knowledge of anatomy because it is only with the knowledge of anatomy, the sport trainer can improve the performance of his player by knowing the effects of exercises on the various bodily parts of his player.

c. It helps in evaluation of a player's capacity.

D. It helps in positioning of body during training session.

E. It helps a player to choose any sport event as per his bodily capacity.

23. Mention the Doping control Procedure in detail.

5

Ans: Drug-free sports environment is the need of the hour now. The stages involved in doping control procedure are – a) selection of athlete, b) notification, c) reporting to the doping control station, d) selecting the sample collection vessel, e) provision of urine sample, f) selecting the sample collection kit, g) splitting the sample, h) sealing the urine sample, i) measuring specific gravity, j) verification of the doping k) control form, l) laboratory process for analysis of the sample. (Explain any five).

24. Discuss the different exercise guidelines at different stages of growth.

5

Ans. Different stages of Growth –

1. Infancy (1 to 3 years):- Exercises to develop head control, sitting & Crawling, Gross motor activities should be promoted, Exercises for moving arms, legs and reaching to various activities, Exercises like throwing, catching and kicking a ball.

2. Early Childhood (3 to 8 years):-Exercises to develop competence in movement skills, Emphasis on participation not on competition, Activities related to fine motor skills, Structured and unstructured daily activities, Recreative and enjoyable methods of physical activities with safe and clean environment.

3-Later Childhood (8-12 years):- exercise for body control, strength and coordination, Activities related to endurance to be avoided, organized or team games to develop social consciousness, introduction of competitive sports, basic rules of play like fair play, simple strategies and tactics, concept of sports training .

4-Adolescence (13 to 19 years):- Moderate intensity physical activity, Bone & Muscles strengthening exercises, resistance exercises, running, swimming for stamina

5-Adulthood (above 19 years):- exercises related to adolescence and life style exercises.

The growth systems and the exercises required for the proper growth to be mentioned – refer the book for the details.

25. Mention the Heart Rate in our day to day life.

3

*Ans. Different of Heart Rate :-*Number of contractions done by heart in one minute. The resting or basal heart rate is 72. The heart rate increases due to various factors but exercise or physical activity makes it fast in short period. The intensity (speed of work) ; volume (duration of work) also brings in heart rate. For example :

(a) When we are at complete rest - heart rate is approx. 72 beats/min.

(b) When we are walking -heart rate is approx. 100 beats/min.

(c) When we are jogging -heart rate is approx. 120 to 140 beats/min.

(d) When we are fast running -heart rate is approx. 160 to 180 beats/min.

(e) When we are fast running for longer duration -heart rate is approx. 200 and above beats/min.

Manual procedure to note heart rate :In this procedure the index finger is slightly placed over any of the arteries like at wrist (Radial artery), at elbow (Brachial artery) at neck (Jugular or Carotid artery), at groin (Femoral artery). Feel the pulse putting slight pressure by the finger. Notice and count this for 15 seconds and then multiply the counted beats by 4, this will be the heart rate of an individual in one minute.

26. Explain the Skill, Technique and Style in detail

5

Skill:- A skill is the ability to perform a whole movement. Skill can be defined as automatization of motor action. Skill denotes the level of effectiveness with which a movement or motor action can be performed. A skill can also be defined as any action that is learnt for a purpose and is needed to take part in activities. The skills are classified into open skills, fine skills, interactive skills, complex skills, etc.

Techniques:- Techniques are the basic movements of any sport or event. For ex, a block start in a 100 mt. race is technique. In fact technique is the way of performing a skill. When developing a skill, a performer

will attempt to improve the aspects of his technique. A technique involves scientific and economical methods adopted to achieve top performance in sports competition.

Style:- A style is an individual's expression of technique in motor action. No two sports persons are alike in different factors which determine motor action. Therefore each sports person due to his specific or particular psychic, physical and biological capacities realizes the technique in a different way. It is called style.

-X-

SAMPLE QUESTION NO.5

1. Explain the BMI 1

Ans: BMI means the Body Mass Index (BMI), it indicates the proportionate height and weight of an Individual.

2. Explain the law of Inertia with application to sports. 1

Ans: Law of Inertia- objects at rest will stay at rest unless acted upon by an unbalanced force.

Exam.- The force felt by a catcher when the ball hits his glove is an example of the law of inertia- the ball intends to keep moving but the glove and the force applied by the catcher's hand in the glove prevented it from moving any further.

3. Find the difference between growth and development in sports. 1

Ans: Growth is physical changes whereas development is overall development of the organism.

- a) Growth is change of physical aspects of the organism. Development is overall changes and progressive changes of the organism.
- b) Growth is the change in shape, form, structure, size of the body. Development is structural change and functional progress of the body.

4. Discuss the procedure of skin fold measurement 1

Ans: This test estimates the percentage of body fat by measuring skin fold thickness at specific locations on the body. Skinfold measurements are generally taken at specific sites on the right side of the body. The tester pinches the skin at the location site and pulls the fold of skin away from the underlying muscle so only the skin and fat tissue is being held. Special skinfold calipers are then used to measure the skinfold thickness in millimeters. Exa. Triceps - The back of the upper arm

Pectoral - The mid-chest, just forward of the armpit, Subscapula - Beneath the edge of the shoulder blade.

5. Write a brief note on types of force with reference to sports. 1

Ans: The force responsible for the change in the direction of a body in turning motion is called the *centripetal force* and always has a direction towards the center of the circular path. In order for circular motion to be possible, some resultant force must be acting on the body with a direction always to the center of the circle. Exa- discus throw or cyclist in Velodrome arena.

Centrifugal force is a fictitious force associated with a rotating system, such as a merry-go-round on a playground. When the system stops rotating, the force seems to disappear. Isaac Newton's First Law, —that an object in motion tends to stay in motion with the same speed and in the same direction unless acted upon by another force. Exa-Hammer throw.

6. Discuss the Meaning of Yoga 1

Ans: 'Yoga' means the individual should be united to or be in communion with the God. Yoga means union, join, yoke, bind, attach or connect. It also means the unification of physical, mental, intellectual and spiritual aspects of human being. The following definitions can be beneficial to understand the meaning of yoga :—**Checking the impulses of mind is Yoga.**” —**Patanjali.**—**Yog is attaining the pose.**” —**Mahrishi Ved Vyas.** —**Yog is spiritual Kamdhenu.**” —**Swami Sampurnanand.****In Bhagwad Gita Lord Krishna said, 'Skill in actions or efficiency alone is Yoga'.**

It has given stress on Karma Yoga, the individual should perform his duties well without thinking about its benefits. Yoga is also defined as a state of higher powers and potentialities and even the ultimate state of silence.

7. Which laws of learning is known as the law of use and disuse

1Ans:Law of Exercise

8. Mention the Parts of Ashtang Yoga.

1

Ans.Parts of AshtangYoga :(i) **Yamas** : Moral codes of universal nature.

(ii) **Niyamas** :Personal conduct with physical and mental discipline.(iii) **Asanas** :Practice of posture.

(iv) **Pranayama** :Breath control(v) **Pratyahar** : Develop inner mental strength

(vi) **Dhyana** :Meditation(vii) **Samadhi** : Contemptions and reflections.

9. Define Measurement

1

Ans:Measurement :According to **H. M. Barrow**, —Measurement refers to the process of administrating a test to obtainquantitative data.”

According to **Barry L. Johnson** and **Jack Nelson**, —Measuremnet aids evaluation process inwhich various tools and techniques are used in collection of data.”

So, measurement is such a process through which our level of performance, fitness level,ability, knowledge, personality traits and skills are measured with the help of various standardtests.

Measurement is important for :(i) giving motivation,

(ii) Knowing the abilities and capabilities.

10. Mention the components of Blood Plasma

1

The component of blood plasma are—

(i) Water (ii) Proteins such as albumin, fibrinogen, etc.(iii) Fats

(iv) Carbohydrates(iv) Mineral salts such as sodium, calcium, potassium, magnesium, Phosphorus, etc.

11. What are the Benefits of warming up

1

(i) It regulates the cardiovascular system for the coming needs.

(ii) neuromuscular co-ordination increases with warming up and also enhances nervous

conductivity.(iii) It increases the body temperature so that muscle fibres can be easily stretched.

(iv) It tones up the muscles and helps to avoid injury to the muscles.

12. Define psychological health and find out various indicators of psychological health.

3

Ans:Health psychology is a specialty area that focuses on how biology, psychology, behavior and social factors influence health and illness. Various Indicators are- a. Go to bed time early at night and get up early which will make you happy. b. Avoid narcotics, cocaine & other banned substances

c.Eat plenty of green vegetables 7 other diary food . d. take a warm bath or shower before going to bed.

e. Play light music or instrument for better relaxation.

13. Explain two testing methods to detect prohibited substance

3Ans:Urine Testing-. A sample is provided and split into two bottles and sealed by the athlete. A code number will be attached to the bottle and recorded on the relevant paperwork to ensure the correct result is given to the athlete whilst retaining their anonymity. If it is positive, the relevant sporting organisations are notified whose responsibility it is to decide what penalties or bans are to be imposed.

Blood testing- is used in the detection of drugs such as **EPO and artificial oxygen carriers** by testing the blood count. Over time a "blood profile" of an athlete can be built up to help determine average readings for each individual. The same anonymity and representative procedures apply as for urine sampling.

14. Explain various responsibilities by the athletes towards anti doping policies.

3

Ans:a.Be available for *Sample* collection and provide accurate and up-to-date whereabouts information for this purpose. b. Be knowledgeable of and comply with all anti-doping policies and rules applicable to them

c. Assist, cooperate and liaise with the *Anti-Doping Organisations* in relation to the conduct of any investigation or hearing into an alleged anti-doping rule violation, in a confidential manner.1)To be

knowledge of and comply with all applicable anti-doping policies and rules adopted pursuant to the code, 2)

be available for the sample collection at all times, 3) take the responsibility in the context of anti-doping, for what they ingest and use, 4) to maintain control of your sample until sealed.

15. How can health threat be prevented through lifestyle change? Discuss any three.3

Ans.Prevention of Health Threats:- Health threats like cancer, diabetics hypertension can be prevented through Regular Exercise, Healthy eating habits, Sufficient sleep, prevention of injuries, Maintaining a healthy weight etc. (explain any three)

16. What is Vital Capacity 3

Ans. Vital Capacity :It is the volume of air that can be breathed out by forced expiration, after taking a deep breath or forced inspiration. It is about 4800 cc in males and about 3100 cc in females and can be measured by an instrument called Spirometer. It is influenced by the following factors :

- (i) **Size :**It is directly related to the size of an individual.
- (ii) **Sex :**It is less in females.
- (iii) **Posture :**It is greater in the upright position and alter after changing the posture.
- (iv) **Disease :**In many diseases such as pneumonia, T.B., etc. it is reduced.

17. Find out any three physical characteristics of Mesomorph. 3

Lean Figure – Mesomorphs have lean figures that clearly define their muscle groups, easily observed in the contours of their skin.

Well Built – With clear muscle definition, broad shoulders and a narrow waist, mesomorphs appear to be naturally well built.

Strong Legs – Mesomorphic types have very strong legs. This is necessary to support their large muscular body structures.

18. Value based- 3

Ms. Dutee Chand an upcoming female sprinter from Odisha has been banned by IAAF due to presence of more Hyperandrogenism in the body. After appeal in the court of Arbitration for Sports (CAS), it cleared the sprint queen to compete again in National & International level due to unscientific & unethical attitude of IAAF. In reference to the aforesaid incident answer the following.

- a) –The verdict of CAS upholds the gender equality in sports”. Justify
- b) What should be the role of IAAF towards the drug free sports?
- c) What value Dutee Chand teaches to the sporting community?

Ans:a-Yes, the decision of CAS is upholds the gender equality in sports, when a sports person don't know his/her hereditary body strength and capacity and not tested positive in the prohibited substances then where the question of male and female is arises.

b. The IAAF is proud of its position at the forefront of the global fight against doping in sport, and is resolutely committed to athletics, and to the preservation of a zero-tolerance policy with respect to doping.

c. Without loosing hope, She fought like a true fighter in legal way and finally her all out effort towards Athletics has been paid off and came back successfully.

19. Explain any three components of Wellness. 3

Ans:Wellness is a state of being well, a way of life, a choice, and a lifestyle designed to achieve a person's highest potential for well-being. Components-Physical wellness, social wellness, emotional wellness, spiritual wellness, Nutritional wellness, financial wellness, Intellectual wellness, Environment wellness. (Explain any five)

20. Define Physical education and explain its aims & Objectives in detail. 5

Ans:Physical Education and its Aims & Objectives:- Physical Education is an educational process that has its aim to the improvement of human performance and human development through the medium of physical activities within an educational setting. True Physical Educators is on the body and through the body . According to J.B. Nash Physical Education is that field of education which deals with big muscles activity and their related responses.

Aim of Physical Education:- The aim of physical education is the wholesome development of an individual, or a complete living. According to the J.F. Willims, Physical education should aim to provide skilled leadership, adequate facilities and ample time for the individual and the groups to participate in activities that are

physically wholesome, mentally stimulating and socially sound. The aim of physical Education must be to make every child physically, mentally and emotionally fit and also to develop in him such personal and social qualities as will help him to live happily with others and build him up a good citizen.

Objectives:- The objectives are Physical Development (Proper growth & Development, Proper functioning of various systems of the body), Social Development (Developing qualities of sympathy etc., Becoming worth member of home or society), Mental Development (Alertness of mind, deep concentration), Moral Development (Development of sportsmanship, Developing leadership qualities), Organic Development, Emotional Development, Neuro-muscular development & Development of health

21. What do you mean by positive sports environment? Discuss the elements required for a positive sports environment. 5

Ans: Meaning & Importance- For the promotion and encouragement of sports and games the appropriate sports environment is always required. Sports and games cannot be flourished in the absence of appropriate sports environment. Elements;- Sports stadiums or sports complexes, Playground/courts, sports equipments, training equipments and protective equipments, Normal climatic conditions, Culture and tradition of society, attitude and behaviour of officials and spectators, attitude and behavior of parents and players, drugs, tobacco and alcohol free environment, - explanation any five.

22. What are the symptoms of overload and how to overcome it. 5

Ans: A systematically, applied, gradually progressive training load is required for an athlete to adapt and improve performance. In order to adaptation to take place adequate recovery strategies must be utilized. Overload occurs as a result of a training schedule that is spontaneously enhanced, lasts for sustained periods of time and is performed at high volume or high intensity or both without sufficient recovery period.

Symptoms of over load:-a) Psychological Symptoms like increased irritability, oversensitivity to criticism, dullness, anxiety, depression, insecurity, change in personality etc.

b) Performance Related Symptoms:- i) Movement coordination (tensed movements, disturbance in rhythm etc), Competitive qualities (fear of competition, confusion in competition, Increasing tendency to abandon the struggle etc), Somatic functional symptoms (loss of sleep, body weight, lack of appetite, digestion Problems, joint aches and pains, night sweating, impaired muscular strength etc.)

How to overcome Overload:- The problem of over load can be solved or tackled best by the endeavours of the physician, coach, athlete and parents. The tips are Plan the training, Nutrition, Psychological Strategies, Social Interactions, Medical Aids, Physical Therapy etc. (Explain it in your own words)

23. Explain in detail the Ancient Olympic Games 5

Ans. The origin- it is started in 776 B.C, Hercules, the son of God zeus started the games & sports in the honour of his father, it continued approximately one thousand years when it is stopped in 394A.D The course of the Ancient Olympic Games, Rules for competitions, Opening & Closing Ceremony, events conducted, Awards and honours will be explained in detail – Refer the text book for detail.

24. Explain any five Physiological benefits of Asanas 5

Ans. Bones and joints become strong, muscles become strong, circulation of blood becomes normal, respiratory organs become efficient, efficiency of digestive system is increased, nervous system is calmed and strengthened, glandular activity is stimulated and regulated properly, Enhance the efficiency of excretory system. Immune system is strengthened.

25. Mention the different adolescent problems and explain its brief management 5

Ans:a. Physiological problem- In this stage suddenly there are changes in internal organs and experience functions. Rapid changes takes place in breathing system, excretory, digestive & other system in the body.
b. Problems of self support- An adolescent does not want to get others support and want to depend on himself to rise in life.

Other problems are- Physical problems, Emotional problems, Fitness problem, Aggressive behavior.a) Guidance of parents, b. To provide suitable environment,
c. Education for motor development, d. Sex education,

- e. Education of psychology, f. Religious & moral education,
g. Adequate freedom & responsibility. (Explain)

26. Discuss the principles involved in Physical Activity Environment.

Ans. Proper environment for a beneficial physical activity is required. The principles to be followed:- location of the place of physical activity, Polluteless environment for physical activity, Proper facilities for physical activities, Proper playgrounds and courts, Proper climatic conditions, Existing infrastructure should be well-maintained, Physical activity environment should be safe and clean, Drugs free environment, Physical activity environment should be attractive and enjoyable, Good social environment. (Explain any five) 5

-X-

SAMPLE QUESTION NO.6

1. Explain the Mechanism involved in Respiration. 1

Ans:- Mechanism of respirations a process by which the lungs expand to take in air and after that contract to expel the air outside. The main muscles of respiration in normal breathing are the intercostals muscles and diaphragm. Mechanism of respiration involves inspiration and expiration, which are stated below.

Inspiration:- When we inspire or inhale the intercostals muscles contract actively to expand the chest cavity. Ribs and sternum move upward and outwards. **Expiration;-** When we exhale or expirate the intercostals muscles relax. Ribs and sternum move downward and inwards.

2. What do you mean by Objective of Physical Education 1

Ans:- • **Organic Development:** The primary objective is the development of our organic systems, such as respiratory system, circulatory system, digestive system, nervous system, muscular systems. Physical activities and exercises have various effects on our organic systems which increase efficiency, capacity, shape and size. • **Social Development:** Various physical activities programs gives individual opportunity for social contact and group living which help them to adjust themselves in different situations and building relations. The qualities like cooperation, obedience, temperament, sacrifice, loyalty, sportsmanship, self-confidence develop. These developments help them to become good human being and forms a healthy society. • **Neuro-muscular co-ordination:** The physical activities help in maintaining a better relationship between nervous system and muscular system. The development neuro-muscular co-ordination develops control and balance of the body. Various games develops our ability of activities such as running, bouncing, catching etc. It also helpful in proper use of energy. • **Emotional Development:** The programs of physical education tell us how to control our various types of emotions such as anger, pleasure, jealousy, fear loneliness etc. It makes an individual emotionally balanced. • **Health Development:** Physical education develops health through health education. It develops healthy habits of sleeping, exercises, food etc. It also reduces worries and anxieties through developing appropriate interests and habits of engaging in exercise and games.

3. How does Physical Education helps to make career to its followers? 1

*Ans:-*Teaching careers, Coaching Careers, Health related careers, Administration related careers, Administrative related careers, performance related careers, Careers in communication Media,

4. Write a brief note on Ancient Olympics. 1

Ans:- The Olympic games in Ancient Greece were held at Olympia in Elis (in southern Greece on the western shore of the Peloponnesus peninsula). Though there is disagreement, historians accept the traditional start date for the Olympic games as 776 bce. The games were held every four years until finally abolished by the Roman emperor Theodosius I in either 393 or 394 ce. The Olympic Games "the Olympics" also Ancient Greek: "the Olympiad") were a series of athletic competitions among representatives of city-states and one of the Panhellenic Games of Ancient Greece. They were held in honor of Zeus, and the Greeks gave them a mythological origin. The first Olympics is traditionally dated to 776 BC.^[8] They continued to be celebrated when Greece came under Roman rule, until the emperor Theodosius I suppressed them in 393 AD as part of the campaign to impose Christianity as the State religion of Rome. The games were held every four years, or olympiad, which became a unit of time in historical chronologies.

5. Justify Olympic Symbol 1

Ans:- The Olympic flag has a white background, with five interlaced rings in the centre: blue, **yellow**, black, green and **red**. This design is symbolic; it represents the five continents of the world, united by Olympism, while the six colours are those that appear on all the national flags of the world at the present time.

6. Discuss Obesity is the cause of concern

1

Ans:-Obesity is a serious, chronic disease that affects people of all ages and genders. The World Health Organisation considers obesity to be a global epidemic and a major public health problem. The WHO estimates there are around 250 million obese adults worldwide, with many more classified as overweight. Obesity is a very common condition and is often linked to other serious medical conditions such as heart disease, high blood pressure and diabetes. The quality of life for sufferers can be severely affected, and for the very obese medical treatment is ineffective. The sad truth is that 95 per cent will regain their excess weight after two years of losing it.

7. What is ergogenic aid in doping

Ans:-With better dope testing methods and hence the possibilities of detection and life ban from the sport, athletes and coaches are looking for legal ways to improve performance and/or hasten recovery. The various ways by which performance can be improved are known as Ergogenic Aids. Ergogenic aids are substances, foods, or training methods that enhance energy production, use or recovery and provide athletes with a competitive advantage. Ergogenic Aids may: directly influence the physiological capacity of a particular body system thereby improving performance, remove psychological constraints which impact performance, increase the speed of recovery from training and competition

8. Explain Sports Psychology

1

Ans:-Sport psychology is an interdisciplinary science that draws on knowledge from many related fields including biomechanics, physiology, kinesiology and **psychology**. It involves the study of how **psychological** factors affect performance and how participation in **sport** and exercise affect **psychological** and physical factors. **Sport psychology** is an **interdisciplinary** science that draws on knowledge from many related fields including **biomechanics**, **physiology**, **kinesiology** and **psychology**. It involves the study of how psychological factors affect performance and how participation in sport and exercise affect psychological and physical factors.^[1] In addition to instruction and training of psychological skills for performance improvement, applied sport psychology may include work with athletes, coaches, and parents regarding **injury**, **rehabilitation**, communication, **team building**, and career transitions.

9. Define second wind in your own words

1

Ans:-person's ability to breathe freely during exercise, after having been out of breath."he seemed to falter halfway through the race before finding his second wind"a new strength or energy to continue something that is an effort."she gained a second wind during the campaign and turned the opinion polls around"

Second wind is a phenomenon in distance running, such as **marathons** or **road running** (as well as other sports), whereby an athlete who is too out of breath and tired to continue suddenly finds the strength to press on at top performance with less exertion. The feeling may be similar to that of a "**runner's high**", the most obvious difference being that the runner's high occurs after the race is over.^[1] Some scientists believe the second wind to be a result of the body finding the proper balance of **oxygen** to counteract the buildup of **lactic acid** in the muscles.^[2] Others claim second winds are due to **endorphin** production.

10. Simplify the term overload in sports.

1

Ans:-The **Overload** Principle is a basic **sports** fitness training concept. It means that in order to improve, athletes must continually work harder as they their bodies adjust to existing workouts. **Overloading** also plays a role in skill learning.

11. Write in brief the importance of cooling down.

1

The overarching goal of a **cool-down** is to reduce heart and breathing rates, gradually **cool** body temperature, return muscles to their optimal length-tension relationships, prevent venous pooling of blood in the lower extremities, which may cause dizziness or possible fainting, and restore physiologic systems close to ... The importance of a cool down immediately after a workout cannot be emphasized enough. After running, jumping or throwing, it is always a good idea to do some cool down excercises immediately. This will

help to prevent any injuries or unnecessary soreness. Start with a light jog around the track and make sure to go at a slow pace. This will prevent your muscles from tightening up and becoming sore. Also, sprinting is an anaerobic exercise which builds up lactic acid. A slow jog will help to rid the body of the acid. Do at least 2 laps after a work out and stretch again. It is important to get a good stretch on the quads, hamstrings, and calves which will be worked out the hardest.

12. Mention Some of the important institutions for Physical education of the Country. 3

Ans. Some of the important institutions for Physical education

- (i) LNUPE (Lakshmi Bai National University of Physical Education) at Gwalior.
- (ii) NSNIS (Netaji Subhash National Institute of Sports) at Patiala, Kolkata, Bengaluru and Gandhi Nagar.
- (iii) YMCA College of Physical Education at Chennai.
- (iv) HVP Mandal Degree College of Physical Education, Amravati.
- (v) LNCPE (Lakshmi Bai National College of Physical Education) at Thiruvananthapuram.
- (vi) Govt. College of Physical Education, Patiala, Hyderabad, Jodhpur.
- (vii) C. P. Degree College of Physical Education, Baruch.
- (viii) B. R. Ambedkar Physical Education College, Muzaffarpur.
- (ix) Shahid Sanshi Ram College of Physical Education, Kharar (Punjab).
- (x) Indira Gandhi Institute of Physical Education and Sports Sciences, Delhi.
- (xi) Training Institute of Physical Education, Mumbai.

13. Discuss about Waist-Hip-Ratio. 3

Ans. Waist-Hip-Ratio (WHR) :- WHR means ‘Waist-to-Hip-Ratio’ this is the ratio of circumference of waist to that of the hips. **Test Administration :** It is calculated by measuring the smaller circumference of the waist (above the belly) and dividing by the hip circumference at the widest part of buttocks/hip. The ratio is applied both to men and women.

Evaluation of Test : WHR is good indicator of health and attractiveness of a person. The ratio around 0.7 is considered good and health among women, whereas the ratio at around 0.9 is considered health among men. These persons have less chances of health problems like diabetes, cardiovascular disorders, cancers etc. The persons will also look attractive.

Group	Excellent	Good	Average	Poor	Bad
Female	0.70	0.75	0.80	0.85	0.90
Male	0.90	0.95	1.00	1.05	1.10

14. Discuss the special Olympic Bharat in detail 3

Ans: Formation:- Special Olympic Bharat is an officially recognized programme of Special Olympics International which was started by Eunice Kennedy Shriver Sister of Kennedy, the former president of USA, it is a movement that uses sports as a catalyst to change the lives of children and adults with intellectual disabilities or mentally retarded persons. It is founded in 1987 as Special Olympic Bharat in 2001 and changed to Special Olympic Bharat in 2001.

Mission:- To provide sports training and sports competition throughout for children and adults with intellectual disabilities, giving them persistent opportunities to develop physical fitness, demonstrate courage

Vision:- To empower and improves the lives of people with intellectual disabilities,

Oath:- —Let me win. But if I can not win, let me be brave in the attempt”.

Goal:- To provide chance to mentally retarded persons or persons with intellectual disabilities.

Achievements:- Organizing National Games in various discipline since 2002, Won many medals, participated in summer and winter Olympic games and other

Benefits:- It improves physical fitness and motor skills, greater self-confidence, a positive self image, etc.

15. Mention three Importance effects of Yoga 3

Ans. Important effects of Yoga : (i) **Increased willpower and confidence :** Regularity plays an important role as it takes time to develop this major quality. All these yogic asanas aim at purification, nervous control and co-ordination and attention increases which help in building up of confidence at work. (ii) **Improves health and reduces obesity :** Everyday practice of yoga for about 30 minutes leads to perfect health and fruitful life. Only yoga can bring peace and happiness to life. Reducing weight is not a day’s work, it needs lot of effort and strong will. Yoga asanas and Pranayama if practised regularly reduce obesity and make the person flexible and healthy. (iii) **Reduce Mental Tension :** Yoga can help in reducing the tension. It is a well-

known fact that most of the persons remain under stress and tension. Asanas, Dhyan are beneficial for relasing stress and tension. Apart from these cure & prevention from diseases, Keep the correct posture of body, provides relaxation, Spritiualdevelopment , Physical purity may also be mentioned with explanation.

16. Explain Plateau and Cause of Plateau. 3

Ans: When we learn any skill in the field of sports, we find rapid progress in the beginning, but after some time, the progress stops itself. We do not get any progress after training. It seems unless to do further training. Our progress ceases. The stage is called ‘Plateau of learning’ in fact plateau is a stagnation or temporary decline in learning process or in performance or training. **Causes of plateau;-** Deficiency in physiological power, Competition schedule, less interest, Fatigue or staleness, Environmental pollution, lack of concentration, Too rapid progress at the start etc. (explain in brief).

Elimination of the Plateaus:- The Psychological method such as motivation, will power, firm determination and creativeness etc can reduce the stage of plateau.

17. Mention the properties of Muscles. 3

Ans: The muscles have some specific properties that enable them to perform various functions:- a) **Excitability** refers to the ability to activate muscles thereby causing it to contract, b) **Contractility** is the ability to the muscles to shorten forcibly when it is stimulated adequately, c) **Elasticity** is the ability of muscle tissue to return to its normal resting length and shape after being stretched, d) **Extensibility** is the ability of the muscle to be stretched or extended which may be explained as per the marks.

18. What is Limbering Down, What are the importance of Limbering Down. 3

Ans:- Cooling down/limbering down is also called warming down. To bring the body in normal state after any competition or training is called cooling down. Cooling down allows the body to transit gradually from an exertional state to a resting or near resting state. The stretching exercises of Hamstrings, Chest, Glutes, Quadriceps, Triceps/shoulders can be helpful for cooling down. **Importance:-** a. Body temperature becomes normal, Proper removal of waste products, Decrease in tension, reduces the chances of dizziness or fainting, Supply of oxygen, decrease in the level of adrenaline in the blood, muscles do not remain stiff, heart reate returns to initial stage etc to be explained.

19. Value Based

(3) Risk factor for cardiovascular diseases fall into two categories, those you can do some thing about such as Physical Activity, levels of stress and those you can't such as age & ethnicity. These are long term process that can begin when you are young, its important to develop heart – healthy habits early in life.

Q-1- What is cardio-vascular disease.

Ans:- it is disease of the heart and blood vessels

Q-2- Who are less prone to cardiovascular diseases.

Ans:- People who have less stress in life and performed regular exercises.

Q-3- Mention the values you will imbibe in your life from above paragraph.

Ans:- Follow a regular routine of exercise from young age, leave a healthy and stress free life.

20. What is emotion? Explain its concept and controlling of emotion. 5

Ans: the Emotion is derived from a latin word ‘Emovere’ which means to stirrup, to agitate or excite, Emotions play a very significant role in human life. These are related with internal needs of human beings, Emotions stimulate the mind and as a result emotions become intense. According to McDougall —**Emotion** is a moved or stirred up state of feeling in an individual linked with some tendency. There are physiological changes associated with each emotion frequently of a muscular or glandular nature”. In simple words, emotion is any strong agitation of the feelings actuated by experiencing love hate, fear etc. and usually accompanied by certain physiological changes.

Methods of controlling of Emotions:- Control your breathing, Meditation, Repression, Redirection, Exercise, Avoid the situation, Introspection etc. (Explain it briefly).

21. Physical activities plays a major role in shaping of aall round bodily movement – justify 5

Ans: Life Style Physical Activities, Vigorous Physical Activities,

Muscles Strengthening Physical Activities,

Flexibility Enhancing Physical activities - Explanation in brief.

22. Discuss the sports awards in detail.

5

Ans. Rajiv Gandhi KhelRatnaAward :Rajiv Gandhi KhelRatna Award is presented for the spectacular and most outstanding performance in the field of sports to the sports-persons in a year (April 1 to March 31). This award is presented to one sportsperson from individual sports but it can be given to more than one person in case of team games. The selection committee do not have discretionary power to select only a few members of a team for the award. This may disrupt the team spirit. However, if in the opinion of the selection committee, there is no performance deserving this award in a particular year, it may not be given in that year. This award consists of the following :

(1) A cash amount of Rs. 7.5 lakh exempted from income tax and wealth tax in the year in which it is disbursed. In case the award is given to more than one sports-person of the team, the amount shall be divided equally *i.e.*, Rs. 3.75 lakh for each sportsperson.

(2) A scroll of honour of each sportsperson. (3) One splaque to each sportsperson.

The selected sportsperson for this award is also provided a blazer, a tie and the reimbursement of TA/DA at the rates decided by the department for coming to Delhi to receive the award.

The amount of award may be given either in cash or in the form of saving certificates or otherwise, as deemed fit by the Government. The achievements in the sports and games which are included in Olympic Games, Asian Games, commonwealth Games and in billiards, snooker and the chess shall be eligible for consideration for this award.

DronacharyaAward :This award is given to honour those coaches who have successfully trained sportspersons or team and enabled them to achieve outstanding results in international competitions. This eminent award was started in the year 1985 with the objectives to honour the contribution and role of coaches and trainer on a persistent basis leading towards apex performance by sportspersons trained by them. To motivate the trainers and coaches to work with more focus and dedication and to train sportspersons in order to help them in achieving success in international level competitions. It is given to coaches for their hard work to produce top level sportspersons. This award is named after the legendary guru or teacher ‘Dronacharay’. In this award, the coach is given five lakh rupees cash, scroll of honour and statue of guru Dronacharya. It is given in three different categories i:e Individual event, Team event & Indigenous sports category. Some of its recipients were Karan sing, Bobby George (Athletics), D.P. Azad (Cricket), Rajinder Sing (Hockey), SaeedMohammuddin (Football), Sham Sunder Rao (Volleyball).

ArjunAward :Arjun award is the supreme honour, which is awarded to sportspersons by the Govt. of India. This award is given to such sportsperson who achieves extraordinary position during that year and who has been giving extraordinary performance during the past three years. This award was started in 1961. Arjun award includes a statue of Arjun (Mahabharata) made of bronze, d diploma and 5 lakh rupees cash. This award is given in the memory of Arjuna of Mahabharata. The selection committee for Arjun award will be headed by the Retired Judge of supreme Court/High Court. It wil consists of sportspersons of eminence (Olympions or previous Rajiv Gandhi KhelRatna or Arjuna Awardees), 3 sports journalists/Experts/Commentators, 1 sports person of eminence/sports administrator/sports expert belonging to parasports, 1 sports administrator, 1 ex-officio member (Director General, Sports Authority of India and one Member secretary, Joint secretary (Sports), Dept. of Sports. The nominations for the award will be send by the National sports federation, Indian Olympic association to the Ministry of Youth Affairs by 31st May every year. It is not be given second time to one sports person, it can be given posthumously. The decision of the Govt.of India in this regard is final and binding.

23. Find out various types of transfer of learning and explain the factors affecting the Transfer of learning.

5

Ans:-Ans: Positive transfer - when learning in one context enhances a related performance in another context. Ex-basket ball player can easily play Hand ball.

Negative transfer - when learning in one context undermines a related performance in another context. A squash player is to practice Tennis.

Applicational transfer- When previous learning is applied to life situation for improvement.

There are some factors which affect the transfer of learning like Learner's will, Learner's Intelligence, Learner's personal achievement, Identical Subject Matter, Training in transfer, Depth of Original understanding (Explain it in brief as per the marks)

24. What is sports Bio-mechanics?. Explain the role of equilibrium with its application in sports. 5

Ans:-Sports biomechanics is a quantitative based study and analysis of professional athletes and sports' activities in general. It can simply be described as the Physics of Sports. Sports biomechanics is a quantitative based study and analysis of professional athletes and sports' activities in general.^[1] It can simply be described as the Physics of Sports. In this subfield of biomechanics the laws of mechanics are applied in order to gain a greater understanding of athletic performance through mathematical modeling, computer simulation and measurement. Biomechanics is the study of the structure and function of biological systems by means of the methods of "mechanics." – which is the branch of physics involving analysis of the actions of forces. Within "mechanics" there are two sub-fields of study: statics, which is the study of systems that are in a state of constant motion either at rest (with no motion) or moving with a constant velocity; and dynamics, which is the study of systems in motion in which acceleration is present, which may involve kinematics (the study of the motion of bodies with respect to time, displacement, velocity, and speed of movement either in a straight line or in a rotary direction) and kinetics (the study of the forces associated with motion, including forces causing motion and forces resulting from motion).^[2] Definitions –Balance -The ability to maintain the body center of gravity over its base of support (NSCA 2012).Stability -The ability to return to a desired position or trajectory following a disturbance. (NSCA 2012).Equilibrium is the state of no acceleration (no change of speed or direction) of body.Static Equilibrium refers to the body at rest or motionless.Dynamic Equilibrium refers to the body in motion with unchanged acceleration created by balanced applied and inertial forceCenter of Gravity:The point at which all body mass is equally balanced or equally distributed in all directions.

25. Simplify laws of learning. With specific reference of laws of learning and transfer of learning.

5Ans:-Educational psychologists and pedagogues have identified several principles of **learning**, also referred to as **laws of learning**, which seem generally applicable to the **learning** process. These principles have been discovered, tested, and used in practical situations.**1) Law of Readiness -This law** states that learning can only take place when a student is ready to learn. For instance, "When an individual is ready to act or to learn, he acts or learns more effectively and with greater satisfaction than when not ready." It is your job as a developer to design a course that helps create this readiness to learn. This can be done by making a course that keeps a student motivated, interested and wanting more. Students need to know why it is important to learn a subject and what their ultimate goal is to be.By designing a course that is not only interesting, but gives the student a measurable sense of what can be accomplished, and why, you have followed this law.**2) Law of Exercise**This law is simple. The more a person repeats something, the better he is able to retain that knowledge. Remember back in grade school when the teacher would have you write spelling words three times each and then use them in a sentence? She was practicing this law. Part two of this law states that knowledge not used becomes weakened and disappears from memory. "Use it or lose it." isn't just a random saying: when it comes to learning, it is completely accurate.As an eLearning designer, you need to provide multiple opportunities for students to go over the material. Add practice problems, mini-quizzes, knowledge checks, summaries and any other kind of review to help achieve this goal.**3) Law of Effect**In simple terms, this law states three things:Learning is strengthened when associated with a pleasant or satisfying feeling. Learning is more likely to happen again in the future.Learning is weakened when associated with an

unpleasant feeling, becoming less likely for learning to occur again in the future. Learners will try to avoid it. Learning occurs when it results in satisfaction and the learner derives pleasure out of it. Therefore, we can say students are more likely to learn when they feel satisfied or are rewarded for learning, rather than punished for not learning. They need to feel good in order to retain motivation. An eLearning designer can accomplish this by creating a course that includes rewards for successfully completing portions of the course. **Here are** some positive emotions you should start designing your eLearning for.

4) Law of Primacy - Think back to the time when it was proven that the Earth was round and not flat. The concept was nearly impossible for the majority of those alive to accept. This is because once a person learns something, it is nearly impossible to tell them that it is actually different. **That is the law of primacy.** It is nearly impossible to unlearn the first thing you have been taught so it is essential that an eLearning course teach the correct information. Make sure any information you include is correct, but show special care at the beginning when concepts are most likely to stick.

5) Law of Recency - This law reminds us that **we remember the most recent (last) material covered.** For this reason, eLearning designers should make a point of including chapter or unit reviews and building on previous knowledge. This gives a student the chance to return to earlier material that may have gotten pushed aside by information near the end of the unit. By creating a review exercise that includes both the older and newer information, it makes it more likely that all the information will be remembered.

6) Law of Intensity The more excitement a lesson creates, the more likely it will be remembered. Creating a hands-on experience, or one that causes the student to feel strong emotion will make the lesson more easily remembered. Develop problems that place the students in real-life situations where they can practice the material. If Accounting for a small business is the goal, create a fictional small business and allow the students to keep records for the business, including year-end reconciling. By doing the actual work, the students will see how each part of what they have learned relates to the others, and to real-life situations. Designing with these laws in mind will make you a designer that is valued. Memorize them and include them and you can't lose.

Definition. In education Transfer of learning or transfer of knowledge or transfer refers to learning in one context and applying it to another, i.e. the capacity to apply acquired knowledge and skills to new situations. Transfer of training is effectively and continuing applying the knowledge, skills, and/or attitudes that were learned in a learning environment to the job environment. Closely related to this concept is Transfer of Learning—the application of skills, knowledge, and/or attitudes that were learned in one situation to another learning situation (Perkins, 1992). This increases the speed of learning.

Meaning: The word transfer is used to describe the effects of past learning upon present acquisition. In the laboratory and in the outside world, how well and how rapidly we learn anything depends to a large extent upon the kinds and amount of things we have learned previously. In simple way transfer may be defined as “the partial or total application or carryover of knowledge, skills, habits, attitudes from one situation to another situation”. Hence, carryover of skills of one learning to other learning is transfer of training or learning. Such transfer occurs when learning of one set of material influences the learning of another set of material later. For example, a person who knows to drive a moped can easily learn to drive a scooter.

Types of Transfer of Learning: There are three types of transfer of learning:

1. **Positive transfer:** *When learning in one situation facilitates learning in another situation, it is known as positive transfer. For example, skills in playing violin facilitate learning to play piano. Knowledge of mathematics facilitates to learn physics in a better way. Driving a scooter facilitates driving a motorbike.*
 2. **Negative transfer:** *When learning of one task makes the learning of another task harder- it is known as negative transfer. For example, speaking Telugu hindering the learning of Malayalam. Left hand drive vehicles hindering the learning of right hand drive.*
 3. **Neutral transfer:** *When learning of one activity neither facilitates nor hinders the learning of another task, it is a case of neutral transfer. It is also called as zero transfer. For example, knowledge of history in no way affects learning of driving a car or a scooter.*
- Theories of Transfer of Learning:** There are two important theories which explain transfer of learning. These are known as modern theories.
1. **Theory of identical elements:** This theory has been developed by E.L. Thorndike. According to him most of transfer occurs from one situation to another in which there are most similar or

identical elements. This theory explains that carrying over from one situation to another is roughly proportional to the degree of resemblance in situation, in other words- more the similarity, more the transfer. The degree of transfer increases as the similarity of elements increase. For example, learning to ride moped is easy after learning to ride a bicycle. Here, transfer is very fast because of identical elements in both vehicles. Thorndike was convinced that the method used in guiding a pupil's learning activities had a great effect upon the degree of transferability of his learning.

2. Theory of generalization of experience: This theory was developed by Charles Judd. Theory of generalization assumes that what is learnt in task A transfers to task B, because in studying A, the learner develops a general principle which applies in part or completely in both A and B. Experiences, habits, knowledge gained in one situation help us to the extent to which they can be generalized and applied to another situation. Generalization consists of perceiving and understanding what is common to a number of situations. The ability of individuals to generalize knowledge varies with the degree of their intelligence.

26. Critically analyse healthy environment leads to healthy sports.

5Ans:- We know from experience and our long-standing partnerships in sport that people flock to good clubs. We also know that sports clubs can sometimes give rise to unhealthy environments that can discourage people from participating, deter broader community engagement, and perpetuate unhealthy attitudes and behaviours. Community sports clubs participating in this program are striving to become healthier by achieving minimum standards relating to six key factors that shape people's experience in a sports club and impact on health. Educated Coaches places the highest emphasis on the overall quality of the athletic experience. We seek to establish a **positive sports environment** that ensures athletes, coaches, families and other support groups interact in a cohesive manner to promote lifetime success for the participants on and off the field. positive sports environment will have options for all levels of participants including beginners, advanced players, and everybody in-between. Placing the athlete within the appropriate level and team where they have an opportunity for success through hard work and dedication assists in growing the passion. Match up a quality coach who understands the environment that athletes thrive in and an opportunity for life-long learning through sport appears. The formula is not complicated, but very often the support groups confuse what the children want with their own personal desires. It becomes coach and parent centered where achieving success is defined through winning and trophies. Athletes flourish in an environment where development, fun, and learning are the main reasons for participation. The group leaders cannot tout their beliefs about development, fun, and learning and then act in a manner not true with their beliefs in the heat of the contest. This would be a misrepresentation of how success is defined and the athletes would lose trust in their coaches. Losing trust leads to losing passion to participate. If the environment spirals out of control and the group defines success as winning games, players will not be able to deal with the pressure of being in a must win situation at all times. In this environment, success does not happen unless the game is won. After watching thousands of games over a lifetime, it has become apparent that a team can win or lose the game and development, fun, and learning can happen. It depends upon what the coach places emphasis upon...development, fun, and learning or winning and losing. When leaders place emphasis on the processes of development, fun, and learning; the scoreboard results take care of themselves. When the athletes purpose for participation is different than the coaches, parents, and other people that provide influence on the athlete; the outcome will be disastrous. This process leads to the athlete no longer participating in the activity. This happens over and over again as young athletes become teenagers. The blame should not be placed on the young participant but should be placed squarely on the unaligned value and belief system of the team and organization. Trust me when I write the former athlete will find an activity that matches their values and beliefs...I only hope it is for the positive...The consistency and cooperation developed through shared values and beliefs from all influential factors around the athlete leads to the establishment of a positive sports environment. A positive sports environment is a byproduct of the leadership of the team, group, or organization intentionally determining that positive relationships and actions within athletic endeavors have an effect of creating an increased opportunity for lifetime success for the athlete. This process does not happen magically and is often overlooked by coaches and organizational leaders. Only through this intentional

positive interaction can the environment be shaped to have such a dramatic impact on the participant. **From the athletes perspective, a positive environment is viewed like this:** These standards apply differently to each club, and are dependent on sport type, facilities, understanding of health issues and volunteer capacity. Clubs across the state are being supported to implement policies, programs and practices to ensure that: alcohol is served and consumed responsibly, a variety of healthy food and drink choices are available, smoke-free venues become the norm, women and girls, Aboriginal Victorians and people from culturally diverse communities are provided with safe, supportive and meaningful opportunities to participate, free from discrimination and fear of violence, injury prevention and management is prioritised within clubs, measures are taken to reduce harmful exposure to UV

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SOME UNSOLVED QUESTION FOR YOU

- | | |
|--|---|
| 1. Explain one principle of sports training | 1 |
| 2. Explain three components of positive life style | 3 |
| 3. Find out the role of Pranayam in sports | 3 |
| 4. List down the process of life style changes to prevent the health threats. | 3 |
| 5. Explain in brief on the development of Yoga in Indian History | 3 |
| 6. Analyse the Importance of Test & Measurement in sports. | 3 |
| 7. Find out the procedures to be adopted to measure height, weight and skin fold | 3 |
| 8. Differentiate between growth & development | 3 |
| 9. Value Based. | |

Kick-Boxing and Taekondo are group fitness workouts that combine martial arts maneuvers, boxing moves and traditional group exercise activities. Participants execute a variety of punches and kicks, building movement combinations that involve the entire body. Based on the information above, answer the following questions:

- | | | |
|--|---|---|
| 1. What are kick-boxing and taekondo? | 2. Are they effective from of exercise? | |
| 3. Write two values, one learns by involving in kick-boxing and taekondo workouts? | | 3 |
| 10. List down the development of Physical Education in post independence era | | 5 |
| 11. Explain the role of IOA and write in brief any three National Sports Award of Our Country. | | 5 |
| 12. What should be the role of Athletes responsibility in doping and mention various doping control procedure. | | 5 |
| 13. Define sports psychology and list down function of respiratory system at the time of exercise | | 5 |

TIME MANAGEMENT FOR THE PRACTICE PAPERS

NOTE: 15 MINUTES WILL BE ALLOTTED TO EACH EXAMINEE FOR READING THE QUESTION PAPER BEFORE COMMENCEMENT OF THE EXAMINATION.

MARKS PER QUESTION	EXPECTED TIME PER QUESTION	NUMBER OF QUESTIONS	TOTAL EXPECTED TIME	AVERAGE EXPECTED TIME FOR EACH CATEGORY
1	1-3 min	11	11-33 min	33 min
3	5-7 min	8	40-56 min	48 min
5	10-13min	7	70-91 min	84 min
		Revision time For	the whole Paper	15 min
		Total		180 min

ASSESS YOURSELF ON THE GRADING CHART

NOTE: 15 MINUTES WILL BE ALLOTTED TO EACH EXAMINEE FOR READING THE QUESTION PAPER BEFORE COMMENCEMENT OF THE EXAMINATION.

TIME LIMIT	SUM OF TIME LIMIT	GRADE	REMARKS
Lower time limit	121 min	Brilliant as he has finished the paper before the expected time	Very well-prepared but needs to revise thoroughly so as to score 100% marks
Upper time limit	180 min	Average as there is no time left for revision	Needs more practice and increase speed so as to keep time for revision

Expected time limit	165min	Excellent as he is left with 15 minutes for revision	Well prepared but remove mistakes, if any during revision so as to get 100% marks.
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GOOD LUCK FOR THE EXAMINATION-2017-2018

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