

# Solution of the UPSC Prelims 2011 General Studies Paper

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**[Click Here for Solution 2012](#)**<sup>[1]</sup>

1. Biodiversity forms the basis for human existence in the following ways :

1. Soil formation.
2. Prevention of soil erosion.
3. Recycling of waste.
4. Pollination of crops<sup>[2]</sup>.

Select the correct answer using the codes given below :

- (a) 1,2, and 3 only.
- (b) 2,3 and 4 only.

(c) 1 and 4 only.

(d) 1,2,3 and 4 only.

***Answer: The Correct Option in this question is D. Biodiversity helps in all of them including soil formation.***

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2. Aspartame is an artificial sweetener sold in the market. It consist of amino acids<sup>[3]</sup> and provides calories like other amino acids. Yet, it is used as a low-calorie sweetening agent in food items. What is the basis of this use ?

(a) Aspartame is as sweet as table sugar, but unlike table sugar, it is not readily oxidized in human body due to lack of requisite enzymes.

(b) When aspartame is used in food processing<sup>[4]</sup>, the sweet taste remains, but it becomes resistant to oxidation.

(c) Aspartame is as sweet as sugar, but after ingestion into the body, it is converted into metabolites that yield no calories.

(d) Aspartame is several times sweeter than table sugar, hence food items made with small quantities of aspartame yield fewer calories on oxidation.

**Answer:**

Those who joined my Target 2011 and Mock Test Programme refer to this question and solution.

My question in Mock Test series was as follows:

The most popular Zero Calorie sugar substitutes in the market are made up of Sucralose, as an artificial sweetener. Why sucralose does not have calories?

(A) Because the Sucralose is 600 times more sweet than Sucrose (Natural Sugar) and thus its low quantity gives same taste but zero calories when it is digested in the body.

(B) Because the chemical composition of Sucralose is such that its oxidation gives less calories in body compared to the Sucrose.

(C) Because Sucralose is not a Carbohydrate

(D) Because Sucralose is not digested in the body

And the solution was as follows: Sucralose is calorie free because majority of it is not broken down by the body. The actual caloric content of a single-serving (1-gram packet) is 3.36 calories. Since it is less than 5 calories, it is labeled as Zero Calorie. If there is any calorie associated with the products made up of Sucralose, it may be because of the dextrose etc. which may be used to give it a volume. Sucralose is about 600 times sweeter than natural sugar, while aspartame is about 200 times sweeter. Sucralose is not metabolized by the body, hence, there is no further breaking down.

*BUT in this question, Aspartame is metabolized by the body into two constituent amino acids and methanol<sup>[5]</sup>. These hydrolysis products are handled by the body in the same way as aspartic acid, L-Phenylalanine and metanol from other consumed foods. These components yield NO calory and add nothing new to the diet. So the correct option is D*

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3. What was the purpose with which Sir William Wedderburn and W.S. Caine had set up the Indian parliamentary committee in 1893?

(a) To agitate for Indian political reforms in the House of Commons.

(b) To campaign for the entry of Indians into the imperial judiciary.

(c) To facilitate a discussion on India's independence in the British Parliament.

(d) To agitate for the entry of eminent Indians into the British Parliament.

**Answer:**

Correct Answer is A:

On 28 December 1885, the Indian National Congress was founded at Gokuldas Tejpal Sanskrit College in Bombay, with 72 delegates in attendance.

- A. O. Hume assumed office as the General Secretary.
- Womesh Chandra Bonnerjee of Calcutta was elected President.
- The additional British Members were William Wedderburn and Justice John Jardine. All others were the Hindus from Calcutta and Madras Presidency.

Wedderburn had entered the Parliament as a liberal member in 1893 and had sought to voice India's grievances within the House.

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#### 4. What is the difference between a CFL and an LED lamp ?

(a) To produce light, a CFL uses mercury vapour and phosphor while an LED lamp uses semi-conductor material.

(b) The average life span of a CFL is much longer than that of an LED lamp.

(c) A CFL is less energy-efficient as compared to an LED lamp.

Which of the statements given above is/are correct ?

(a) 1 only.

(b) 2 and 3 only.

(c) 1 and 3 only.

(d) 1, 2, and 3.

This was a basic question. Correct answer is C.

#### 5. Recently , “ oil zapper<sup>[6]</sup>” was in the news. What is it ?

(a) It is an eco-friendly technology for the remediation of oily sludge and oil spills<sup>[7]</sup>.

(b) It is the latest technology developed for under-sea oil exploration.

(c) It is a genetically engineered high biofuel-yielding maize variety.

(d) It is the latest technology to control the accidentally caused flames from oil wells.

**Answer:**

**Correct Option is A** . A very Basic question covered by GKtoday exhaustively. Use this link <sup>[8]</sup>to find out more:

6.A married couple adopted a male child. A few years later, twin boys were born to them. The blood group of the couple is AB positive and O negative. The blood group of the three sons is A positive, B positive , and O positive. The blood group of the adopted son is ?

(a)O positive .

(b)A positive.

(c)B positive .

(d)Cannot be determined on the basis of the given data.

**Answer:** The blood group of the parents are AB and O; the child's blood group may be A or B. and since the boy is adopted and it is given in the question that " the blood group of the three sons are A+,B+,O+". Correct Answer is O+ (Thanks Jayeth)

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7.Mahatma Gandhi said that some of his deepest convictions were reflected in a book titled, "unto this last" and the book transformed his life. What was the message from the book that transformed mahatma Gandhi ?

(a) Uplifting the oppressed and poor is the moral responsibility of an educated man

(b) The good of individual is contained in the good of all.

(c) The life of celibacy and spiritual pursuit are essential for a noble life.

(d) All the statements (a), (b) and (c) are correct in this context.

The correct Answer of this question is B. Here is an explanation. The statement A is incorrect because from Ruskin's writing Gandhi derived the message that "the job of a lawyer is equal to a job of a barber, and both have right to earn their livelihood". Statement B is correct because Gandhi clearly mentioned in one of his writing that The good of individual is contained in the good of all, this is something which inspired him to translate the book into "sarvodaya". Statement C is incorrect, what Gandhi derived from this book was of a "life of labour" and not life of celibacy. Celibacy or Brahmacharya was something which actually came out of his own guilt beginning as early as the days of death of his father".

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8. With reference to Indian freedom struggle, Usha Mehta is well-known for ?

(a) Running the secret congress radio in the wake of quit India movement<sup>[9]</sup>.

(b) Participating in the second round table conference.

(c) Leading a contingent of Indian national army.

(d) Assisting in the formation of Interim government under Pandit Jawaharlal Nehru.

Please note that a Secret Radio was run<sup>[10]</sup> by Usha Mehta .  
Correct Option is A

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9. A new optical disc format known as the blu-ray disc (BD) is becoming popular. In what way is it different from the traditional DVD ?

1. DVD supports standard definition video while BD supports high definition video.

2. Compared to a DVD, the BD format has several times more storage capacity.

3. Thickness of BD is 2.4 mm while that of DVD is 1.2 mm.

Which of the statements given above is/are correct ?

(a) 1 only.

(b) 1 and 2 only.

(c) 2 and 3 only.

(d) 1, 2 and 3.

Here we should note HD DVD also has Disc thickness of 1.2mm



equal to Blu Ray Disc<sup>[11]</sup> – 1.2mm. So in this question the tricky option statement 3 is incorrect. The difference lies in capacity so statement 2 is correct. As far as statement 1 is concerned, please note that development of Blu Ray disc was fundamentally linked to the support to high definition videos. So correct option is B. Kindly read this link also <sup>[12]</sup>

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10. With reference to the period of Indian freedom struggle, which of the following was/were recommended by the Nehru report ?

1. Complete independence for India.
2. Joint electorates for reservation of seats for minorities.
3. Provision of fundamental rights for the people of India in the constitution.

Select the correct answer using the codes given below :

- (a) 1 only.
- (b) 2 and 3 only.
- (c) 1 and 3 only.
- (d) 1, 2 and 3.

Nehru Report did not provide for separate electorates for any community or weightage for minorities, but yes it talks of Joint electorates. It also talks for Bills of rights so, the correct answer is B

**11.** Among the following states, which one has the most suitable climatic conditions for the cultivation of a large variety of orchids with minimum cost of production, and can develop an export oriented industry in this field ?

(a) Andhra Pradesh<sup>[13]</sup>.

(b) Arunachal Pradesh<sup>[14]</sup>.

(c) Madhya Pradesh.

(d) Uttar Pradesh.

Orchids = North East India's climate Correct option B

**12.** Which one of the following is not a site for in-situ method of conservation of flora ?

(a) Biosphere reserve.

(b) Botanical garden.

(c) National park.

(d) Wildlife sanctuary.

This simple question wants you to know the difference between in situ and ex<sup>[15]</sup> situ conservation. Zoos and botanical gardens are the most conventional methods of ex-situ conservation, rest all options are natural habitats so are of in situ conservation.

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13. Consider the following statements<sup>[16]</sup> :

In India, a metropolitan planning committee :

1. Is constituted under the provisions of the constitution of India.
2. Prepares the draft development plans for metropolitan area.
3. Has the sole responsibility for implementing government sponsored schemes in the metropolitan area.

Which of the statements given above is/are correct ?

(a) 1 and 2 only.

(b) 2 only.

(c) 1, 3 only.

(d) 1, 2 and 3.

The third statement is incorrect and so option A is correct.

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14. What is the difference between "vote-on-account" and interim budget ?

1. The provision of a "vote-on-account" is used by a regular government, while an "interim budget" is a provision used by a caretaker government.

2. A "vote-on-account" only deals with the expenditure in government

is budget, while an “interim budget” includes both expenditure and receipts.

Which of the statements given above is/are correct ?

(a)1 only.

(b)2 only.

(c)Both 1 and 2.

(d)Neither 1 nor2.

The first statement is very tricky in this question. Kindly note that caretaker Government is the government which is ready to Go, it does not present the Interim Budget. The interim Budget is presented by the Incoming Government or new Government which has different fiscal and revenue plans from the outgoing Government. So ONLY Statement 2 is correct.

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15. Regarding the international monetary fund, which one of the following statements is correct ?

(a) It can grant to any country.

(b) It can grant loans<sup>[17]</sup> to only developed countries.

(c) It grants loans to only member countries.

(d) It can grant loans to the central bank of a country.

Correct Answer is C

16. In the union budget 2011-12, a full exemption from the basic customs duty was extended to the bio-based asphalt (biosphalt).

What is the importance of this material ?

1. Unlike traditional asphalt, bio-asphalt is not based on fossil fuels.
2. Biosphalt can be made from non-renewable resources.
3. Bioasphalt can be made from organic waste materials.
4. It is eco-friendly to use bioasphalt for surfacing of the roads.

Which the correct answer using the codes given below ?

- (a) 1,2,and 3 only.
- (b) 1,3 and 4 only.
- (c) 2 and 4 only.
- (d) 1,2,3, and 4.

The second statement is incorrect and correct option is B

17. Consider the following :

1. Carbon dioxide.
2. Oxides of nitrogen.
3. Oxides of Sulphur

Which of the above is/are the emission/emissions from coal combustion at thermal power plants ?

- (a) 1 only.
- (b) 2 and 3 only.
- (c) 1 and 3 only.
- (d) 1,2,and 3

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18. Satellites used for telecommunication relay are kept in a geostationary<sup>[18]</sup> orbit. A satellite is said to be in such as orbit when :

1. The orbit is geosynchronous<sup>[19]</sup>.
2. The orbit is circular.
3. The orbit lies in the plane of the earth's equator.
4. The orbit is at an altitude of 22,236.

Which the correct answer using the codes given below :

- (a) 1,2,and 3 only.
- (b) 1,3 and 4 only.
- (c) 2 and 4 only.
- (d) 1,2,3, and 4.

Please note that a Geostationary orbit is a geosynchronous orbit that is circular and at zero inclination, that is, directly above the equator. The height is 22236 miles BUT NOT Kilometres, in Kilometres it is 35,786. :)

The correct option is A

19. India has experienced persistent and high food inflation in the recent past. What could be the reasons ?

1. Due to a gradual switchover to the cultivation of commercial crops, the area under the cultivation of food grains has steadily decreased in the last five years by about 30%.

2. As a consequence of increasing incomes, the consumption patterns of the people have undergone a significant change.

3. The food supply chain has structural constraints.

Which of the statements given above are correct ?

(a) 1 and 2 only.

(b) 2 and 3 only.

(c) 1 and 3 only.

(d) 1, 2, and 3.

This question is based upon a statement of RBI which said: Notwithstanding some moderation, food price inflation has remained persistently elevated for over a year now, reflecting in part the

structural demand-supply mismatches in several commodities. In the same document, RBI also said that the trend of food inflation was pointing at not only structural demand-supply mismatches in commodities comprises the essential consumption basket but also at changing consumption patterns. So UPSC took this statement and framed a Question. The first statement is arbitrary. India's area under food grains can be downloaded from this link<sup>[20]</sup>

Thus only statement 2 & 3 are correct and correct option is B.

20. At present , scientists can determine the arrangement or relative positions of genes or DNA sequences on a chromosome. How does this knowledge benefit us ?

1. It is possible to know the pedigree of livestock.
2. It is possible to understand the causes of all human diseases<sup>[21]</sup>.
3. It is possible to develop disease-resistant animal breeds.

Which of the statements give above is/are correct ?

- (a) 1 and 2 only.
- (b) 2 only.
- (c) 1 and 3 only.
- (d) 1,2, and 3 .

A very basic, but confusing question. **The second statement in this statement needs some explanation.** The first thing is that , Human Genome Project is NOT at all limited to only genetic diseases. There



are some 30K genes and the genome sequence would provide great help to build the tools to conquer diseases. Here we must note that all diseases have a genetic component, whether inherited ( genetic) or resulting from the body's response to environmental stresses like viruses or toxins. The successes of the HGP have even enabled researchers to pinpoint errors in genes—the smallest units of heredity—that cause or contribute to disease. Thus second statement stands correct.

All statements are correct and correct option is D

21. In terms of economy, the visit by foreign nationals to witness the XIX common wealth games in India amounted to ?

- (a) Export.
- (b) Import.
- (c) Production.
- (d) Consumption.

It's a cakewalk. Isn't it? Correct option is **A that is export**. For those, who ticked option D should try to know, why it can not be said a consumption. The question just wants to know whether you read something about the " Balance of Payments<sup>[22]</sup>" or NOT. The income was from "tourism" and that is an invisible export.

22. Microbial fuel cells are considered a source of sustainable energy. Why ?

1. They use living organisms as catalysts to generate electricity from certain substrates.

2. They use a variety of inorganic materials as substrates.
3. They can be installed in waste water treatment plants to cleanse water and produce electricity.

Which of the following statements given above is/ are correct ?

- (a) 1 only.
- (b) 2 and 3 only.
- (c) 1 and 3 only.
- (d) 1,2,and 3

Microbial fuel cell is a device that converts chemical energy to electrical energy by the catalytic reaction of microorganisms. The major substrates that have been tried include various kinds of artificial and real wastewaters and lignocellulosic biomass, yet the Electricity generation with anodic sulfide oxidation has been shown, Inorganic and other substrates have been used and is a matter of research. The correct option is D that is 1, 2 as well as 3.

23. Which one of the following statements appropriately describes the “fiscal stimulus” ?

- (a) It is a massive investment by the government in manufacturing sector to ensure the supply of goods to meet the demand surge caused by rapid economic growth.
- (b) It is an intense affirmative action of the government to boost economic activity in the country.

- (c) It is government's intensive action on financial institutions to ensure disbursement of loans to agriculture and allied sectors to promote greater food production and contain food inflation.
- (d) It is an extreme affirmative action by the government to pursue its policy of financial inclusion<sup>[23]</sup>

The question is Basic and a cakewalk for all those who read newspapers. Correct option is B.

24. The formation of ozone hole in the Antarctic region has been a cause of concern. What could be the reason for the formation of this hole ?

- (a) Presence of prominent tropo-spheric turbulence; and inflow of chlorofluorocarbons.
- (b) Presence of prominent polar front and stratospheric clouds; and inflow of chlorofluorocarbons.
- (c) Absence of polar front and stratospheric clouds; and inflow of methane and chlorofluorocarbons.
- (d) Increased temperature at polar region due to global warming.

The nitric acid in polar stratospheric clouds reacts with CFCs to form chlorine, which catalyzes the photochemical destruction of ozone. Correct option is B.

25. Consider the following actions which the government can take :

1. Devaluing the domestic currency.

2. Reduction in the export subsidy.
3. Adopting suitable policies which attract greater FDI and more funds from FIIs.

Which of the above action/actions can help in reducing the current account deficit ?

- (a) 1 and 2 .
- (b) 2 and 3 .
- (c) 3 only.
- (d) 1 and 3.

The question is based upon the basic of Current Account BOP , it can be read on this link<sup>[24]</sup>.

The definition of BOP at current account is as follows:

Exports- Imports = Trade Balance (1)

Invisible Payments – Invisible Receipt = Net Invisibles (2)

1. + (2) = BoP on Current Account.

The first 2 actions affect the exports and imports.

Under capital account, capital inflows can be classified by instrument (debt or equity<sup>[25]</sup>) and maturity (short or long-term). The main components of capital account include foreign investment, loans and banking capital. Foreign investment comprising foreign direct investment (FDI) and portfolio<sup>[26]</sup> investment consisting of

foreign institutional investors (FIIs) investment, American Depository<sup>[27]</sup> Receipts / Global Depository Receipts<sup>[28]</sup> (ADRs/GDRs) represents non-debt liabilities<sup>[29]</sup>, while loans (external assistance, external commercial borrowings<sup>[30]</sup> and trade credit) and banking capital including nonresident Indian (NRI) deposits are debt liabilities.

Thus the correct actions are 1 & 2 and correct option is A

26. The constitution (seventy-third amendment) act, 1992, which aims at promoting the panchayati raj institutions in the country, provides for which of the following ?

1. Constitution of district planning committees.
2. State election commissions to conduct all panchayat elections.
3. Establishment of state finance commission.

State the correct answer using the codes given below :

- (a) 1 only.
- (b) 2 and 3 only.
- (c) 2 and 3 only.
- (d) 1,2,and 3.

District planning committee has been provided by **Article 243 ZD** under Constitution of India, which was inserted by 74th Constitution Amendment Act and not by 73rd amendment act. So first tricky

statement was incorrect. Rest 2 statements are correct and correct option is C.

27. Two important rivers- one with its source in Jharkhand (and known by a different name in odisha), and another, with its source in odisha- merge at a place only a short distance from the coast of bay of Bengal before flowing into the sea. This is an important site of wildlife and biodiversity and a protected area. Which one of the following could be this ?

- (a) Bhitarkanika
- (b) Chandipur-on-sea.
- (c) Gopalpur-on-sea.
- (d) Simlipal.

Correct answer is Bhitarkanika and the rivers are Brahmani and Baitarani rivers. It has been in news frequently.

28. A rapid increase in the rate of inflation is sometimes attributed to the “base effect<sup>[31]</sup>”. What is “base effect” ?

- (a) It is the impact of drastic deficiency in supply due to failure of crops.
- (b) It is the impact of the surge in demand due to rapid economic growth.
- (c) It is the impact of the price levels of previous year on the calculation of inflation rate.

(d) None of the statements (a), (b) and (c) given above is correct in this context.

We have discussed this many times in our Target 2011 modules. Base effect is almost an ubiquitous term which says that the previous data affects the calculation of the current data. Option C is correct.

29. India is regarded as a country with “Demographic Dividend<sup>[32]</sup>”. This is due to ?

- (a) Its high population in the age group below 15 years.
- (b) Its high population in the age group of 15-64 years.
- (c) Its high population in the age group above 65 years.
- (d) Its high total population.

Hamid Ansari had made a statement recently that unless we can increase access and educational outcomes at secondary and tertiary levels, our demographic dividend might turn into a demographic liability. The question just wants you to know the "definition" and the correct definition is B.

30. Regarding “carbon credits” , which one of the following statements is not correct ?

- (a) The carbon credit system was ratified in conjunction with the Kyoto protocol<sup>[33]</sup>.
- (b) Carbon credits are awarded to countries or groups that have reduced greenhouse gases below their emission quota.

- (c) The goal of the carbon credit system is to limit the increase of carbon dioxide emission.
- (d) Carbon credits are traded at a price fixed from time to time by the united nations environment programs.

The statement D is incorrect and this was an easy question :)

31. Consider the following :

1. Right to education.
2. Right to equal access to public service.
3. Right to food.

Which of the above is/are human right/human rights under “universal declaration of human rights” ?

- (a) 1 only.
- (b) 1 and 2 only.
- (c) 3 only.
- (d) 1,2,and 3.

Article 25 says Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control. Article 21(2)



says Everyone has the right of equal access to public service in his country. Article 26(1) says (1) Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. All are correct and correct option is D

32. There is a concern over the increase in harmful algal blooms in the seawater of India. What could be the causative factors for this phenomenon ?

1. Discharge of nutrients from the estuaries.
2. Run-off from the land during the monsoon.'
3. Upwelling in the seas.

Select the correct answer from the codes given below :

- (a) 1 only.
- (b) 1 and 2 only.
- (c) 2 and 3 only.
- (d) 1,2,and 3.

Fundamental question , D is correct option.

33. Consider the following :

1. Photosynthesis.
2. Respiration.

3. Decay of organic matter.

4. Volcanic action.

Which of the above add carbon dioxide to the carbon cycle<sup>[34]</sup> on earth ?

(a) 1 and 4 only .

(b) 2 and 3 only .

(c) 2, 3 and 4 only.

(d) 1,2,3 and 4 .

We have discussed Carbon Cycle. You can read it here<sup>[35]</sup>

Correct are 2, 3 & 4 and correct option is C

34. Recently, the USA decided to support India's membership in multi-lateral export control regimes called the "Australia group" and the "Wassenaar arrangement. What is the difference between them ?

1. The Australia group is an informal arrangement which aims to allow exporting countries to minimize the risk of assisting chemical and biological weapons proliferation, whereas the Wassenaar arrangement is a formal group under the OECD holding identical objectives.

2. The Australia group comprises predominantly of Asian, African and north American countries, whereas the member countries of Wassenaar arrangement are pre-dominantly from the European union and American continents.

Which of the statements given above is/are correct ?

- (a) 1 only.
- (b) 2 only.
- (c) Both 1 and 2.
- (d) Neither 1 nor 2.

Wassenaar arrangement =Export Controls for Conventional Arms and Dual-Use Goods and Technologies

Australia Group=chemical and biological weapons

There are NOT many Asian / African countries in the Australia Group. Only asian country is Japan and NOT a single african country is there. Wassenaar agreement has South Africa, Japan, from Asia but yes, the countries from EU and Americas are there. But, both the statement are incorrect and the correct option is D.

35. The surface of a lake is frozen in severe winter, but the water at its bottom is still liquid. What is the reason ?

- (a) Ice is a bad conductor of heat.
- (b) Since the surface of the lake is at the same temperature as the air, no heat is lost.
- (c) The density of water is maximum at 4°C.
- (d) None of the statements (a), (b) and (c) given is correct.

Its true that the density of water is greatest at 4° C and ice that forms in cold weather forms at the top of the water. But after that it acts as an insulating barrier, preventing the water underneath from getting much colder . This means that Frozen lake surface acts like a insulator preventing heat from the water from escaping and thus keeping the heats of the water trapped. Correct option is A.

36. A sandy and saline area is the natural habitat of an Indian animal species. The animal has no predators in that area but its existence is threatened due to the destruction of its habitat. Which one of the following could be that animal ?

- (a) Indian wild buffalo.
- (b) Indian wild ass.
- (c) Indian wild boar.
- (d) Indian gazelle.

Easy question, inspired from *Katch nahi dekha to Kuchh nahi dekha* :) Correct option B.

37. La Nina<sup>[36]</sup> is suspected to have caused recent floods in Australia. How is La Nina different from El Nino ?

1. La Nina is characterized by un-usually cold ocean temperature in equatorial Indian ocean whereas El Nino is characterized by unusually warm ocean temperature in the equatorial pacific ocean.
2. El Nino has adverse effect on south-west monsoon of India, but La Nina has no effect on monsoon climate.

Which of the statements given above is/are correct ?

- (a) 1 only.

- (b) 2 only.
- (c) Both 1 and 2.
- (d) Neither 1 nor 2.

El Nino<sup>[37]</sup>=bad baby, La Nina = Good baby (For Indian Monsoon), so statement 2 is incorrect. La nina is cold event in the pacific ocean while the el nino is warm event. Both statements are not correct.

Correct Option D

38. The tendency for increased litigation was visible after the introduction of the land settlement system of lord Cornwallis<sup>[38]</sup> in 1793. The reason for this is normally traced to which of the following provisions ?

- (a) Making zamindar's position stronger vis-à-vis the ryot.
- (b) Making east India company<sup>[39]</sup> an overlord of zamindars.
- (c) Making judicial system more efficient.
- (d) None of the (a), (b) and (c) above.

Please note that the reforms of Cornwallis had increased the litigation and the main reason for this was the Court Fee was removed and now every body could drag anybody to courts. The extension to right of appeal was also one of the reasons. Court fees were abolished by Cornwallis. Lawyers were to prescribe their fees. Ordinary people could sue the Government servants (Indians) if they committed mistakes. Inhuman punishments such as cutting limbs, cutting nose and ears were abolished. These are some of the

reasons that led to increased litigation. The reasons given in the options don't seem to fit in the criteria of the reforms of Cornwallis so Option D is correct.

39. Which one of the following observations is not true about the Quit India movement of 1942 ?

- (a) It was a non-violent movement.
- (b) It was led by Mahatma Gandhi.
- (c) It was a spontaneous movement.
- (d) It did not attract the labour class in general.

On August 8, 1942 the Quit India Resolution was passed at the Bombay session of the All India Congress Committee and here Gandhi made a call to participate people in non-violent way. It's worth noting that the communists had opposed this movement and it virtually damaged the labour movement. Labour Unions under Communist influence had apparently decided against participation in the movement, there were large-scale strikes in mills at Kanpur, Jamshedpur and Ahmedabad. **There was an indifference of the Labour Class, so the statement D is correct.**

**The first statement in this question needs to be looked into. The Quit India Movement was basically promoted as a non-violent and non-cooperative movement but it was not a non-violent. There were various events in which Police stations, Railway Stations, Railway Lines and Post-Offices were burnt and destroyed. So the correct option in this question is A.**

40. Which amongst the following provided a common factor for

tribal insurrection in India in the 19th century ?

- (a) Introduction of a new system of land revenue and taxation of tribal products.
- (b) Influence of foreign religious missionaries in tribal areas.
- (c) Rise of a large number of money<sup>[40]</sup> lenders, traders and revenue farmers as middlemen in tribal areas.
- (d) The complete disruption of the old agrarian order of the tribal communities.

All the options given in this question are so competitive that one can not easily differentiate between them. However, the first option is rejected because it used the term "tribal products". The second option is rejected because NOT in all areas, the impact of foreign missionaries was seen. The third option is IS also NOT correct, because not all areas saw the rise of moneylenders. The fourth option is correct and it includes everything what happened in that era. The most common thing was the foreign interference in the indigenous world of their own which dismantled the structure that existed since centuries. The correct option is D.

41. India maintained its early cultural contacts and trade links with southeast Asia across the bay of Bengal. For this pre-eminence of early maritime history of bay of Bengal , which of the following could be the most convincing explanation/explanations ?

- (a) As compared to other countries, India had a better ship-building technology in ancient and medieval times.
- (b) The rulers of southern India always patronized traders ,

Brahmin priests and Buddhist monks in this context.

- (c) Monsoon winds across the bay of Bengal facilitated sea voyages.
- (d) Both (a) and (b) are convincing explanations in this context.

The option C of this question is based upon the "Trade Secret" of India when its maritime trade history had just begun and has been narrated and documented by the Mediterranean writers. They have written that Indians had known the art of direct sailing between South India and the Coasts of South Africa, Arabia, but the Indian kept it as a Trade secret. It is very likely that the seafaring Indians took advantage of the monsoon winds in the navigation of the Bay of Bengal and Arabian Sea, Strabo says, these people knew something which we (Greeks) don't know. But this seems to be much correct about the Africa and Arabia, rather than South East Asia.

Coming back to the question, the first statement says that Indians had better ship building technology. Its correct to say because India exported boats and ships on regular basis, and shipping was a major industry (even we used to export boats to Portugal till 15th Century). Arab sailors also purchased the boats from Indians. There is a document named "**Yuktikalpataru**" which gives evidence that Shipbuilding in India was highly advanced.

I come to the conclusion that the explanation A, B and C are correct at their own places. But since we have not been given the option to choose all of them, I take Option D as correct answer. I reject the option C on the ground given above.

42. What is the difference between blue-tooth and Wi-Fi devices ?



- (a) Bluetooth uses 2.4 GHz radio frequency band, whereas Wi-Fi can use 2.4 GHz or 5 GHz frequency band.
- (b) Bluetooth is used for wireless local area networks (WLAN) only, whereas Wi-Fi is used for wireless wide area networks (WWAN) only.
- (c) When information is transmitted between two devices using blue-tooth technology , the devices have to be in the line of sight of each other, but when Wi-Fi technology is used the devices need not be in the line of sight of each other.
- (d) The statements (a) and (b) given above are correct in this context.

Bluetooth uses the microwave radio frequency spectrum in the 2.402 GHz to 2.480 GHz range. Wifi is based upon IEEE 802.11 standards, that uses 2.4, 3.6 and 5 GHz frequency bands. IEEE 802.11 is for implementation of the wireless local area network (WLAN) using the above frequencies and makes the basis Wi-Fi wireless networks. If I say that Wi-fi uses on WWAN **ONLY**, I am incorrect. I need to say that Wi-Fi allows the deployment of local area networks (LANs) without wires for client devices,. So reject option B. Bluetooth doesn't require line of sight between communicating devices, so reject option C. Correct answer of this question is A.

43. With reference to micro-irrigation, which of the following statements is/are correct ?

1. Fertilizer/nutrient loss can be reduced.

2. It is the only means of irrigation in dry land farming<sup>[41]</sup>.
3. In some areas of farming, receding of ground water table can be checked.

Select the correct answer using the codes given below :

- (a) 1 only .
- (b) 2 and 3 only .
- (c) 1 and 3 only.
- (d) 1,2 and 3 .

Whenever UPSC uses the words such as ONLY, Both, None, you must become alert of a Googly. The first statement is correct because with Micro irrigation, **Fertigation** can be used to check the loss of the nutrients. The second statement is incorrect. The third statement is correct, because Micro irrigation has evolved from the sub-irrigation where irrigation water is supplied to the plant by "raising the water table" up to the root zone. Correct option is C

44. With reference to the period of colonial rule in India, "Home Charges " formed an important part of drain of wealth from India. Which of the following funds constituted "Home Charges" ?

1. Funds used to support the India office in London.
2. Funds used to pay<sup>[42]</sup> salaries and pensions of British personnel engaged in India.
3. Funds used for waging wars outside India by the British.

- (a) 1 only.
- (b) 1 and 2 only.
- (c) 2 and 3 only.
- (d) 1,2,and 3.

None other than the legendary R C Datt can explain this question better. So here I am reproducing a paragraph from the Page 149 of the Economic History of India<sup>[43]</sup> by RC Datt:

*" The Indian Tribute whether weighted in the scales of justice or viewed in the light of our interest, will be found to be at variance with humanity, with the commonsense and with the received maxims of economical science. It would be true wisdom then to provide for the future payment of such of the Home Charges of the Indian Government as really from the tribute out of Indian Exchequer.*

*These charges would be probably found to be the dividends on East India Stock, interest in Home debt, the salaries of the officers, establishments of the and building connected with the Home Department of Indian Government, furlough and retired pay to members of the Indian Military and Civil Services when at Home, Charges of all descriptions paid in this country connected with the British troops serving in India and portion of the cost of transporting the British troops to and from India".*

Correct answer is Option : D

45. What was the reason for mahatma Gandhi to organize a satyagraha on behalf of the peasants of Kheda ?

1. The administration did not suspend the land revenue collection in spite of a drought.
2. The administration proposed to introduce permanent settlement in Gujarat.

Which of the statements given above is/are correct ?

- (a) 1 only.
- (b) 2 only.
- (c) Both 1 and 2.
- (d) Neither 1 nor 2.

*Only 1 is correct statement in this question.*

46. The 2004 Tsunami made people realize that mangroves can serve as a reliable safety hedge<sup>[44]</sup> against coastal calamities. How do mangroves function as a safety hedge ?

- (a) The mangrove swamps separate the human settlements from the sea by a wide zone in which people neither live nor venture out.
- (b) The mangroves provide both food and medicines which people are in need of after any natural disaster.
- (c) The mangrove trees are tall with dense canopies and serve as an excellent shelter during a cyclone or Tsunami.
- (d) The mangrove trees do not get uprooted by storms and tides because of their extensive roots.

The obvious correct answer of this question is D

47. The Jain<sup>[45]</sup> philosophy holds that the world is created and maintained by ?

- (a) Universal law.
- (b) Universal truth.
- (c) Universal faith.
- (d) Universal soul.

Jain Doctrine is "established" upon an undying universal truth. It was Rishabh deV, who is first thought to realize the truth and achieve Kevalya Gyana. Correct Option B

48. Salinization occurs when the irrigation water accumulated in the soil evapo-rates, leaving behind salts and minerals. What are the effects of Salinization on the irrigated land ?

- (a) It greatly increases the crop production.
- (b) It makes some soils impermeable .
- (c) It raises the water table.
- (d) It fills the air spaces in the soil with water.

Unless the salts and minerals are washed down into the groundwater, the Sodium and other ions are absorbed by the colloidal clay particles. It leads to the deflocculating of the particles and the soil becomes structure less and impermeable to water.

49. The “Red Books” published by the international union for conservation of nature and natural resources (IUCN) contain lists of ?

- (a) Endemic plant and animal species present in the biodiversity hotspots<sup>[46]</sup>.
- (b) Threatened plant and animal species.
- (c) Protected sites for conservation of nature and natural resources in various countries.

Select the correct answer using the codes given below :

- (a) 1 and 3.
- (b) 2 only.
- (c) 2 and 3.
- (d) 3 only.

Correct answer is option B

50. Why is the offering of “teaser loans” by commercial banks a cause of economic concern ?

1. The teaser loans are considered to be an aspect of sub-prime lending and banks may be exposed to the risk of defaulters in future.
2. In India, the teaser loans are mostly given to inexperienced entrepreneurs to set up manufacturing or export units.

In India, it was SBI which pioneered the Teaser loans. They are though to be some kind of sub prime lending and so statement 1 is correct. RBI, as a step to discourage teaser loans, asked banks to make provision of 2 per cent of outstanding portfolio for such loans with immediate effect. By December 2010, only SBI was offering these loans, ICICI and other banks had withdrawn it. Statement 2 is arbitrary and is NOT correct. It has nothing to do with the experience of the entrepreneurs; they are available for home loans as well. RBI had observed that many banks, at the time of initial loan appraisal, do not consider the repaying capacity of a borrower at normal lending rates, and that was the major issue.

### Correct Option A

51. An artificial satellite orbiting around the earth does not fall down. This is so because the attraction of earth ?

- (a) Does not exist at such distance.
- (b) Is neutralized by the attraction of the moon.
- (c) Provides the necessary speed for its steady motion.
- (d) Provides the necessary acceleration for its motion.

The examiner wants you to decide between speed and acceleration. Please note that an artificial satellite moving round the Earth in a circular orbit possesses an acceleration which is "constant" in magnitude but "changing in direction". An artificial satellite revolves round the earth under **centripetal acceleration**. By the launch rocket, immediately before the satellite is established in the predetermined orbit, the speed given to it is 30, 000 km/hr. The speed must be great enough so gravity doesn't bring the satellite

back to Earth, but not so great that the satellite escapes gravity out into space. This means that the speed, which is provided by the rocket is the source of the centrifugal force, and the attraction of the earth holds it from moving away from this centrifugal force. **In this question Option D is correct answer.**

52. In the context of Indian economy<sup>[47]</sup>, consider the following statements ?

1. The growth rate of GDP has steadily increased in the last five years.
2. The growth rate in per capita income has steadily increased in the last five years.

Which of the statements given above is/are correct ?

- (a) 1 only.
- (b) 2 only.
- (c) Both 1 and 2.
- (d) Neither 1 nor 2.

The growth rate in GDP has NOT increased steadily but has gone down and came up, several times. Statement 2 is also NOT correct. Please refer this<sup>[48]</sup> Correct option D.

53. In India, which of the following have the highest share<sup>[49]</sup> in the disbursement of credit to agriculture and allied activities ?



- (a) Commercial banks.
- (b) Cooperative banks.
- (c) Regional rural banks<sup>[50]</sup>.
- (d) Microfinance institutions.

The correct answer is Commercial Banks and most authentic source is Here<sup>[51]</sup>

54. Which of the following can aid in furthering the government's objective of inclusive growth ?

- 1. Promoting self-help groups.
- 2. Promoting micro. Small and medium enterprises.
- 3. Implementing the right to education act.

Select the correct answer using the codes given below :

- (a) 1 only.
- (b) 1 and 2 only.
- (c) 2 and 3 only.
- (d) 1,2 and 3 only.

D is the correct answer.

55. Why is the government of India disinvesting its equity in the

central public sector enterprises (CPSEs) ?

1. The government intends to use the revenue earned from the disinvestment mainly to pay back the external debt.
2. The government no longer intends to retain the management control of the CPSEs.

Which the correct statements given above is/are correct ?

- (a) 1 only.
- (b) 2 only.
- (c) Both 1 and 2.
- (d) Neither 1 nor 2.

When we say "Mainly" the money is to be used to pay the external debt, it is not correct to say so. Government though "may intend" to retain the management control, but there are fiscal constraints, that induce the government to go for disinvestment. Both statements are NOT correct.

56. What is difference between asteroids and comets ?

1. Asteroids are small rocky plane-toids, while comets are formed of frozen gases held together by rocky and metallic material.
2. Asteroids are found mostly between the orbits of Jupiter and mars, while comets are found mostly between Venus and mercury.
3. Comets show a perceptible glowing tail, while asteroids do not.

Which of the statements given above is/are correct ?

- (a) 1 and 2 only.
- (b) 1 and 3 only.
- (c) 3 only.
- (d) 1,2 and 3.

B is the correct answer. The statement 2 looks poorly fabricated :)

57. Economic growth is usually coupled with ?

- (a) Deflation.
- (b) Inflation.
- (c) Stagflation<sup>[52]</sup>.
- (d) Hyperinflation.

A very simple question, but makes you think. generally, Economic growth is coupled with inflation and the correct option is B.

58. The lowering of bank rate<sup>[53]</sup> by the reserve bank of India<sup>[54]</sup> leads to ?

- (a) More liquidity in the market.
- (b) Less liquidity in the market.
- (c) No change in the liquidity in the market.

(d) Mobilization of more deposits by commercial banks.

This question is GKtoday's favourite and has been repeated many times in our quizzes. Low bank Rate means more liquidity. The correct option is A.

59. Westerlies in southern hemisphere are stronger and persistent than in northern hemisphere. Why ?

1. Southern hemisphere has less landmass as compared to northern hemisphere.
2. Coriolis force is higher in southern hemisphere as compared to northern hemisphere.

Which of the statements given above is/are correct ?

- (a) 1 only.
- (b) 2 only.
- (c) Both 1 and 2.
- (d) Neither 1 nor 2.

The higher speed and greater persistence of the westerlies in the Southern Hemisphere are caused by the difference in the atmospheric pressure patterns as well as its variation from that of the Northern hemisphere. The landmass in the southern hemisphere is comparatively less and average annual pressure decreases much more rapidly on the pole ward side of the high pressure belt.  
statement 1 is correct

As far as coriolis force is concerned, it is strongest in the polar regions and zero at the equator. At the intermediate levels it varies directly as the sine of the latitude. So statement 2 is incorrect.

60. Between India and east Asia, the navigation-time and distance can be greatly reduced by which of the following ?

1. Deepening the Malacca straits between Malaysia and Indonesia.
2. Opening a new canal across the kra isthmus between the gulf of Siam and Andaman sea.

Which of the statements given above is/are correct ?

- (a) 1 only.
- (b) 2 only.
- (c) Both 1 and 2.
- (d) Neither 1 nor 2.

Opening a new canal in Kra Insthums CAN reduce the navigation time and distance. .



The first statement in this question requires an explanation. Its worth note that the Malacca strait is the main shipping channel between the Indian Ocean and the Pacific Ocean and links the India, China, Japan and South Korea. The issue of deepening of the Malacca strait is "linked" to its economic importance rather than "time of navigation and distance". The issue is that most of the ships can not pass through it and the size of the biggest ships which can enter through it is called **Malaccamax**. Now the deepening of the strait would certainly help in "Increasing the volume of the business" because ships of larger sizes can pass thru it, there is no significance of distance and navigation. So statement 1 is incorrect.

61. Which one of the following is not a feature of "value added tax" ?

- (a) It is multi-point destination-based system of taxation.
- (b) It is a tax levied on value addition at each stage of transaction in the production- distribution<sup>[55]</sup> chain.
- (c) It is a tax on the final consumption of goods or services and must ultimately be borne by the consumer.
- (d) It is basically a subject of the central government and the state governments are only a facilitator for its successful implementation.

D is incorrect , it could be something like CENVAT to fit in this criteria.

62. A "closed economy" is an economy in which ?

- (a) The money supply<sup>[56]</sup> is fully controlled.

- (b) Deficit financing<sup>[57]</sup> takes place.
- (c) Only exports take place.
- (d) Neither exports nor imports take place.

Closed economies take themselves as self sufficient and neither import nor export. Correct option D

63. When the bark of a tree is removed in a circular fashion all around near its base, it gradually dries up and dies because ?

- (a) Water from soil cannot rise to aerial parts.
- (b) Roots are starved of energy.
- (c) Tree is infected by soil microbes.
- (d) Roots do not receive oxygen for respiration.

The question wants you to know about the Xylem and Phloem and their functions. Phloem is the innermost layer of the bark and its job is to do the transport of soluble organic material made during photosynthesis (photosynthate) , the process is called translocation. So, whatever that is produced in the leaves , if not sent to the parts such as roots, they will be starved of energy and ....:)

Water will keep rising till we don't cut the tree's xylem parts.

Correct Option B

64. The "New START" treaty was in the news. What is this treaty ?

- (a) It is a bilateral strategic nuclear arms reduction treaty between the USA and the Russian federation.
- (b) It is a multilateral energy security cooperation treaty among the members of the east Asia summit.
- (c) It is a treaty between the Russian federation and the European union for the energy security cooperation.
- (d) It is a multilateral cooperation treaty among the BRICS countries for the promotion of trade.

It does not require any explanation , correct option A

65. Three of the following criteria have contributed to the recognition of western Ghats , Sri Lanka and Indo-Burma regions as hotspots of biodiversity :

1. Species richness.
2. Vegetation density.
3. Endemism.
4. Ethno-botanical importance.
5. Threat perception.
6. Adaption of flora and fauna to warm and humid conditions.

Which three of the above are correct criteria in this context ?

- (a) 1,2, and 6.



- (b) 2,4 and 6.
- (c) 1,3 and 5.
- (d) 3,4 and 6.

To qualify as a hotspot, a region must meet two strict criteria: it must contain at least 1,500 species of vascular plants (> 0.5 percent of the world's total) as endemics, and it has to have lost at least 70 percent of its original habitat. so we choose Species richness as well as Endemism. Along with this Threat perception is necessary to take , because it makes the base of this concept. Adapataion of flora is an arbitrary option, Ethno-botanical importance does nothing with the Biodiversity Hotspot selection criteria, vegetation Density is also discarded.

Correct Option C

66. Human activities in the recent past have caused the increased concentration of carbon dioxide in the atmosphere, but a lot of it does not remain in the lower atmosphere because of ?

1. Its escape into the outer stratosphere.
2. The photosynthesis by phytoplankton in the oceans.
3. The trapping of air in the polar ice caps.

Which of the statements given above is/are correct ?

- (a) 1 and 2.
- (b) 2 only.

(c) 2 and 3.

(d) 3 only.

Carbon dioxide on Polar Ice Caps is something we are told in context with Mars, On earth it is Ice only. The correct option in this question is 2 only i.e. B

67. In the context of ecosystem productivity, marine upwelling zones are important as they increase the marine productivity by bringing the ?

1. Decomposer microorganisms to the surface.
2. Nutrients to the surface.
3. Bottom-dwelling organisms to the surface.

Which of the statements given above is/are correct ?

(a) 1 and 2.

(b) 2 only.

(c) 2 and 3.

(d) 3 only.

Upwelling brings nutrient-rich water towards the ocean surface, replacing the warmer, usually nutrient-depleted surface water. This is to do with the Phytoplankton's and nothing to do with the decomposer microorganisms. Correct option is C

68. If a tropical rain forest is removed, it does not regenerate quickly as compared to a tropical deciduous forest. This is because ?

- (a) The soil of rain forest is deficient in nutrients.
- (b) Propagules of the trees in a rain forest have poor viability.
- (c) The rain forest species are slow-growing.
- (d) Exotic species invade the fertile soil of rain forest.

This question needs an explanation. We must note that Most soils found under the tropical rainforests are deficient in nutrients. This is because of the warm and humid climate. There is a high temperature and and this high temperature leads to decomposition of the organic material as well as the inorganic parent material of the soil. There are frequent rains and these rains leach the decomposing material off the soil , out of the root zone quickly. So, the result is that the Tropical rain Forests have adapted themselves and quickly take up the nutrients and most nutrients in the tropical rain forests is stored in the vegetation. Correct Option A

69. The Himalayan Range is very rich in species diversity. Which one among the following is the most appropriate reason for this phenomenon ?

- (a) It has a high rainfall that supports luxuriant vegetative growth.
- (b) It is a confluence of different bio-geographical zones.
- (c) Exotic and invasive species have not been introduced in this region.

(d) It has less human interference.

The most correct answer is option B

70. With reference to India, consider the following central acts :

1. Import and export (control) act, 1947.
2. Mining, and mineral development (regulation) act, 1957.
3. Customs act, 1962.
4. Indian forest act, 1927.

Which of the above acts have relevance to/bearing on the biodiversity conser-vation in the country ?

- (a) 1 and 3 only.
- (b) 2,3 and 4 only.
- (c) 1,2,3 and 4.
- (d) None of the above acts.

Correct answer is 1, 2 , 3 & 4 . Check this link<sup>[58]</sup>

However, it must be noted that the Imports and Exports (Control) Act, 1947 and the Foreign Trade (Development and Regulation) Ordinance, 1992 (Ord. 11 of 1992) got repealed with the enactment of Foreign Trade (Development And Regulation) Act, 1992. But still the answer remains the same because the new act also has "bearing" on biodiversity conservation.

71. Karl Marx explained the process of class struggle with the help of which one of the following theories ?

- (a) Empirical liberalism.
- (b) Existentialism.
- (c) Darwin's theory of evolution.
- (d) Dialectical materialism.

Darwin's "**struggle for existence**" in natural history is analogous to the class struggle in "human History". So option C stands incorrect. The sketch of dialectical materialism given by Karl Marx explains that Dialectical principle is of universal application and all the development is "struggle of opposites" or "conflict of opposites". Thus option D stands correct in this question.

72. A layer in the earth's atmosphere called ionosphere facilitates radio communication. Why ?

1. Why presence of ozone causes the reflection of radio waves to earth.
2. Radio waves have a very long wavelength.

Which of the statements given above is/are correct ?

- (a) 1 only.
- (b) 2 only.
- (c) Both 1 and 2.

(d) Neither 1 nor 2.

Is Ozone present in the Ionosphere? So statement 1 is incorrect. Statement 2 is also incorrect. Correct option D.

73. Both foreign direct investment (FDI) and foreign institutional investor<sup>[59]</sup> (FII) are related to investment in a country. Which one of the following statements best represents an important difference between the two ?

(a) FII helps bring better management skills and technology. While FDI only brings in capital.

(b) FII helps in increasing capital availability in general, while FDI only targets specific.

(c) FII flows only into the secondary market<sup>[60]</sup>, in general, while FDI only targets specific sectors.

(d) FII is considered to be more stable than FDI.

Those who know the fundamentals of economy can easily make out that statement 2 is correct. Correct Option B

74. A genetically engineered form of brinjal, known as the Bt-brinjal, has been developed. The objective of this is ?

(a) To make it pest-resistant.

(b) To improve its taste and nutritive qualities.

(c) To make it drought-resistant.

(d) To make its shelf-life longer.

### Correct answer is Obviously A

75. With reference to “Aam Admi Bima yojna” consider the following statements ?

1. The member insured under the scheme must be the head of the family or an earning member of the family in a rural landless household.
2. The member insured must be in the age group of 30 to 65 years.
3. There is a provision for free scholarship insured who are studying between classes 9 and 12.

Which of the statements given above is/are correct ?

- (a) 1 only.
- (b) 2 and 3 only.
- (c) 1 and 3 only.
- (d) 1,2 and 3.

The age group is 18-59 years so reject statement 2. The scheme talks about the free add-on scholarship benefit for the children (maximum two) at the rate of Rs. 100/- per month studying between 9th to 12th Standard. So accept statement 3. Statement 1 is correct. So correct answer is Option C

76. Regular intake of fresh fruits and vegetables is recommended in the diet since they are a good source of antioxidants<sup>[61]</sup>. How do antioxidants help a person maintain health and promote longevity ?

- (a) They activate the enzymes necessary for vitamin synthesis in the body and help prevent vitamin deficiency.
- (b) They prevent excessive oxidation of carbohydrates, fats and proteins in the body and help avoid unnecessary wastage of energy.
- (c) They neutralize the free radicals produced in the body during metabolism.
- (d) They activate certain genes in the cells of the body and help delay the ageing process.

C is the correct answer

77. Regarding the Indus valley civilization , consider the following statements ?

1. It was predominantly a secular civilization and the religious element, though present, did not dominate the scene.
2. During this period, cotton was used for manufacturing textiles in India.

Which of the statements given above is/are correct ?

- (a) 1 only.
- (b) 2 only.



- (c) Both 1 and 2.
- (d) Neither 1 nor 2.

We have read about the Mehrgarh cotton which is the earliest example of Cotton cultivation in the old world , older than the Peruvians. The cloth was made, and even dyed, so statement 2 is correct. The first statement is also correct and has been "lifted" from a famous history book. Correct options are 1 & 2 both means Option C

78. The lower Gangetic plain is characterised by humid climate with high temperature throughout the year. Which one among the following pairs of crops is most suitable for this region ?

- (a) Paddy and cotton.
- (b) Wheat and jute.
- (c) Paddy and jute.
- (d) Wheat and cotton.

The low and deltaic plains of the Ganges and Brahmaputra rivers that is characterised by swamps and sundarbans. So, the people out there grow Paddy and Jute . Correct Option C.

79. What could be the main reason/reasons for the formation of African and Eurasian desert belt ?

1. It is located in the sub-tropical high pressure cells.
2. It is under the influence of warm ocean currents.

Which of the statements given above is/are correct in this context ?

- (a) 1 only.
- (b) 2 only.
- (c) Both 1 and 2.
- (d) Neither 1 nor 2.

The Eurasian Belt is related to cold currents NOT warm current, so statement 2 is incorrect.

Lets discuss the first statement. Its worth note that the desert occurs in 2 broad belts viz. at 20-30° north and south of the Equator , along the Tropics of Cancer and Capricorn. The Desert areas normally develop under the influence of the quite permanent high-pressure areas. We all know that the earth rotates around its axis at about 1676 km per hour at the equator, but the speed is almost zero at poles.

The hot air at the equator would rise and spread north and south before cooling and it would condense and release its moisture over the tropical zones. This leads to development of an equatorial zone of low atmospheric pressure. The two tropical zones are at high pressure and nearer to the poles are 2 low-pressure belts of cold. Now, as the denser air sinks towards the ground to the 2 subtropical high-pressure belts, wind is created which is hot and completely lacking of moisture. This blows across Sahara, the Middle East and the North America.

So statement 1 is correct.

Correct Option : B

80. The jet aircrafts fly very easily and smoothly in the lower stratosphere. What could be the appropriate explanation ?

1. There are no clouds or water vapour in the lower stratosphere.
2. There are no vertical winds in the lower stratosphere.

Which of the statements given above is/are correct in this context ?

- (a) 1 only.
- (b) 2 only.
- (c) Both 1 and 2.
- (d) Neither 1 nor 2.

The idea is to optimize fuel burn. reason is the the low air density that reduces parasitic drag on the airframe. It also allows them to stay above any hard weather (extreme turbulence).Air flow in the stratosphere is much lesser turbulent than in the troposphere and this is the reason that jet aircraft like to cruise at stratospheric altitudes for, the flight is less "bumpy." So statement 2 is correct.

Majority of clouds form in the Earth's troposphere, but there are occasions where clouds in the stratosphere and mesosphere are formed and have been observed. The statement 1 which says that There are no clouds or water vapour in the lower stratosphere, is NOT a correct statement, to the extent that it does not explain the flight of jets in lower stratosphere.

81. Consider the following statements :

1. Biodiversity is normally greater in the lower latitudes as

compared to the higher latitudes.

2. Along the mountain gradients, biodiversity is normally greater in the lower altitudes as compared to the higher altitudes.

Which of the statements given above is/are correct ?

- (a) 1 only.
- (b) 2 only.
- (c) Both 1 and 2.
- (d) Neither 1 nor 2.

Both are correct statements and Correct option is C

82. The Brahmaputra, Irrawaddy and Mekong rivers originate in Tibet narrow and parallel mountain ranges in their upper reaches. Of these rivers, Brahmaputra makes a "U" turn in its course to flow into India. This "U" turn is due to ?

- (a) Uplift of folded Himalayan series.'
- (b) Syntaxial bending of geologically young Himalayas.
- (c) Geo-tectonic disturbance in the tertiary folded mountain chains.
- (d) Both (a) and (b) above.

Brahmaputra originates near Mt. Kailas and is known to take a U turn near Mount Namcha Barwa. This U turn is also known as Great Bend. The U Turn is because of the 180° bend of the Himalayan structural trends. Correct Option is B

83. A state in India has the following characteristics :

1. Its northern part is arid and semi-arid.
2. Its central part produces cotton.
3. Cultivation of cash crops is predominant over food crops.

Which one of the following states has all of the above characteristics ?

- (a) Andhra Pradesh.
- (b) Gujarat.
- (c) Karnataka.
- (d) Tamil Nadu.

Answer is Gujarat

84. What is “virtual private network” ?

- (a) It is a private computer network of an organization where the remote users can transmit encrypted information through the server of the organization.
- (b) It is a computer network across a public internet that provides users access to their organizations network while maintaining the security of the information transmitted.
- (c) It is a computer network in which users can access a shared pool of computing resources through a service provider.

(d) None of the statements (a), (b) and (c) given above is correct description of virtual private network.

VPN is all about maintaining privacy over the public internet. Correct option is B.

85. The “dharma” and “Rita” depict a central Idea of ancient vedic civilization of India. In this context, consider the following statements :

1. Dharma was a conception of obligations and of the discharge of one’s duties to oneself and to others.
2. Rita was the fundamental moral law governing the functioning of the universe and all it contained.

Which of the statements given above is/are correct ?

- (a) 1 only.
- (b) 2 only.
- (c) Both 1 and 2.
- (d) Neither 1 nor 2.

Rita refers to regulation order by nature and was related to the conduct of the Vedic Gods and Humans, somewhere related to the moral and physical law. Statement 2 is correct. Rita was later replaced by Dharma and was a more sophisticated form of principles of law. As per Chanakya<sup>[62]</sup>, Dharma was the promotion of one’s own security , happiness as well as the social order. Both the statements are correct. Correct Option C

86. In the context of global oil prices, "Brent crude oil" is frequently referred to in the news. What does this term imply ?

1. It is a major classification of crude oil.
2. It is sourced from north sea.
3. It does not contain sulphur.

Which of the statements given above is/are correct ?

- (a) 2 only.
- (b) 1 and 2 only.
- (c) 1 and 3 only.
- (d) 1,2, and 3.

Both 1 & 2 are correct and correct option is C

87. The function of heavy water in a nuclear reactor is to ?

- (a) Slow down the speed of neutrons.
- (b) Increase the speed of neutrons.
- (c) Cool down the reactor.
- (d) Stop the nuclear reaction.

Correct Option is A

88. In India, if a religious sect/community is given the status of a national minority<sup>[63]</sup>, what special advantages it is entitled to ?

1. It can establish and administer exclusive educational institutions.
2. The president of India automatically nominates a representative of the community to Lok Sabha.
3. It can derive benefits from the prime minister's 15-point programme.

Which of the statements give above is/are correct ?

- (a) 1 only.
- (b) 2 and 3 only.
- (c) 1 and 3 only.
- (d) 1,2 and 3.

1 & 3 are correct statements. Option C is correct

89. India is home to lakhs of person with disabilities, what are the benefits available to them under the law ?

1. Free schooling till the age of 18 years in government- run schools.
2. Preferential allotment of land for setting up business.
3. Ramps in public buildings.



Which of the statements given above is/are correct ?

- (a) 1 only.
- (b) 2 and 3 only.
- (c) 1 and 3 only.
- (d) 1,2 and 3.

Disable students come under the Right to Education and RTE Act provides for free and compulsory education to 'children' between the **ages six and 14 years**, though under the Persons with Disability (PWD) Act, a child refers to a person up to the age of 18 years. So statement 1 is correct..

Please note that Persons with Disability (PWD) Act provides for ramps in public building; adaptation of toilets for wheel chair users; braille symbols and auditory signals in elevators or lifts; ramps in hospitals, primary health centres and other medical care and rehabilitation institutions. The same act also states that appropriate Governments and local authorities shall by notification frame schemes in favour of persons with disabilities, for the preferential allotment<sup>[64]</sup> of land at concessional rates. So Correct Option is D

90. With what purpose is the government of India promoting the concept of " Mega food parks<sup>[65]</sup>" ?

1. To provide good infrastructure facilities for the food processing industry.
2. To increase the processing of perishable items and reduce wastage.

3. To provide emerging and eco-friendly food processing technologies to entrepreneurs.

Select the correct answer using the codes given below :

- (a) 1 only.
- (b) 1 and 2 only.
- (c) 2 and 3 only.
- (d) 1,2 and 3.

Correct option D

91. The authorization for the withdrawal of funds from the consolidated fund of India must come from ?

- (a) The president of India.
- (b) The parliament of India<sup>[66]</sup>.
- (c) The prime minister of India.
- (d) The union finance minister.

Parliament shall have power to authorise by law the withdrawal of moneys from the Consolidated Fund of India for the purposes for which the said grants are made. Correct Option B

92. All revenues received by the union government by way of taxes and other receipts for the conduct of government business are

credited to the ?

- (a) Contingency fund of India.
- (b) Public account.
- (c) Consolidated fund of India.
- (d) Deposits and advances fund.

Correct Answer Consolidated Fund of India

93. Microfinance is the provision of financial services to people of low-income groups. This includes both the consumers and the self-employed. The service/services rendered under micro-finance is/are :

- 1. Credit facilities.
- 2. Savings facilities.
- 3. Insurance facilities.
- 4. Fund transfer facilities.

Select the correct answer using the codes given the lists ?

- (a) 1 only.
- (b) 1 and 4 only.
- (c) 2 and 3 only.

(d) 1,2 ,3 and 4.

Correct answer is D

94. Southeast Asia has captivated the attention of global community over space and time as a geostrategic-ally significant region. Which among the following is the most convincing explanation for this global perspective ?

- (a) It was the hot theatre during the second world war.
- (b) Its location between the Asian powers of china and India.
- (c) It was the arena of superpower confrontation during the cold war period.
- (d) Its location between the pacific and Indian oceans and its pre-eminent maritime character.

D is the correct answer

95. A company marketing food products advertises that its items do not contain trans-fats. What does this campaign signify to the customers ?

1. The food products are not made out of hydrogenated oils.
2. The food products are not made out of animal fats/oils.
3. The oils used are not likely to damage the cardiovascular health of the consumers.

Which of the statements given above is/are correct ?

- (a) 1 only.
- (b) 2 and 3 only.
- (c) 1 and 3 only.
- (d) 1,2 and 3.

Correct Option is C

96. Among the following who are eligible to benefit from the “mahatma Gandhi national rural employment guarantee act” ?

- (a) Adult members of only the scheduled caste and scheduled tribe households.
- (b) Adult members of below poverty line (BPL) households.’
- (c) Adult members of households of all backward communities.
- (d) Adult members of any household.

Correct Option is D

97. With reference to look east policy of India , consider the following statements ?

1. India wants to establish itself as an important regional player in the east Asian regional player in the east Asian affairs.
2. India wants to plug the vacuum created by the termination of cold war.

3. India wants to restore the historical and cultural ties with its neighbors in southeast and east Asia.

Which of the statements given above is/are correct ?

- (a) 1 only.
- (b) 1 and 3 only.
- (c) 3 only.
- (d) 1,2 and 3.

Correct Option is B

98. When the annual budget is not passed by the lok sabha ?

- (a) The budget is modified and presented again.
- (b) The budget is referred to the rajya sabha for suggestions.
- (c) The union finance minister is asked to resign.
- (d) The prime minister submits the resignation of council of ministers.

Correct Answer D

99. Under the constitution of India, which one of the following is not a fundamental duty ?

- (a) To vote in public elections.

- (b) To develop the scientific temper.
- (c) To safeguard public property.
- (d) To abide by the constitution and respect its ideals.

A is correct Answer

100. With reference to the finance commission of India, which of the following statements is correct ?

- (a) It encourages the inflow of foreign capital for infrastructure development.
- (b) It facilities the proper distributor of finances among the public section undertakings.
- (c) It ensures transparency in financial administration.
- (d) None of the statements (a), (b) and (c) given above is correct in his context.

Correct Answer is D