

UPSC 2014

1. With reference to Union Budget, which of the following, is/are covered under Non-Plan Expenditure?

- (1). Defence-expenditure
- (2). Interest payments
- (3). Salaries and pensions
- (4). Subsidies

Select the correct answer using the code given below.

- A. 1 only
- B. 2 and 3 only
- C. 1, 2, 3 and 4
- D. None

Answer: C

Solution: Non-plan revenue expenditure in Union Budget account for by interest payments, subsidies on food and fertilizers, wage and salary payments to government employees, grants to States and Union Territories, pensions, economic services, tax collection etc. Since all 4 are correct, so option C is correct.

2. Which of the following organizations brings out the publication known as 'World Economic Outlook'?

- A. The International Monetary Fund
- B. The United Nations Development Programme
- C. The World Economic Forum
- D. The World Bank

Answer: A

Solution: World Economic Outlook database has selected macroeconomic data series from statistical appendix of World Economic Outlook report published by International Monetary Fund, so option A is correct.

3. There is some concern regarding the nanoparticles of some chemical elements that are used by the industry in the manufacture of various products. Why?

- (1). They can accumulate in the environment, and contaminate water and

soil.

(2). They can enter the food chains.

(3). They can trigger the production of free radicals. Select the correct answer using the code given below.

A. 1 and 2 only

B. 3 only

C. 1 and 3 only

D. 1, 2 and 3

Answer: D

Solution: Nanoparticles are microscopic particles used in biomedical, optical and electronics field which gets accumulated in environment and contaminate water and soil. They also enters in food chains and can trigger production of free radicals.

4. Consider the following pairs:

Vitamin Deficiency	Disease
(1). Vitamin C	Scurvy
(2). Vitamin D	Rickets
(3). Vitamin E	Night blindness

Which of the pairs given above is/are correctly matched?

A. 1 and 2 only

B. 3 only

C. 1, 2 and 3

D. None

Answer: A

Solution: Statement 1 is correct as Scurvy is a disease resulting from a deficiency of vitamin C. Statement 2 is also correct as Rickets is a bone disorder caused by deficiency of vitamin D. Statement 3 is incorrect as Night blindness is the common and earliest symptom of vitamin A deficiency and not E. Since both 1 and 2 are correct so option A is correct.

5. Consider the following statements:

(1). Animal Welfare Board of India is established under the Environment (Protection) Act, 1986.

(2). National Tiger Conservation Authority is a statutory body. (3).

National Ganga River Basin Authority is chaired by the Prime Minister.

Which of the statements given above is/ are correct?

- A. 1 only
- B. 2 and 3 only
- C. 2 only
- D. 1, 2 and 3

Answer: B

Solution: Statement 1 is incorrect as Animal Welfare Board of India was established in 1960 under The Prevention of Cruelty to Animals Act and not under the Environment (Protection) Act, 1986. Statement 2 is correct as National Tiger Conservation Authority is a statutory body of Ministry that perform functions as provided in Wildlife (Protection) Act, 1972.

Statement 3 is correct as National Ganga River Basin Authority is planning, implementing, monitoring authority for Ganges River, established by Central Government of India, under Section 3(3) of Environment Protection Act and is chaired by Prime Minister. Option B is correct as only statements 2 and 3 are correct.

6. With reference to 'Eco-Sensitive Zones', which of the following statements is/are correct?

(1). Eco-Sensitive Zones are the areas that are declared under the Wildlife (Protection) Act, 1972.

(2). The purpose of the declaration of Eco-Sensitive Zones is to prohibit all kinds of human activities, in those zones except agriculture.

Select the correct answer using the code given below.

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

Answer: D

Solution: Eco-sensitive zones was launched by Ministry of Environment and Forests around Protected Areas in order to save ecological damage which appears due to developmental activities around National Parks and

Wildlife Sanctuaries. The idea behind this is to create buffer zone, where activities are performed to save demarcated areas. Statement 1 is incorrect as Eco-Sensitive Zones are areas which are not declared under Wildlife (Protection) Act, 1972. Statement 2 is also incorrect as the idea of declaration of Eco-Sensitive Zones is to stop all kinds of activities prevailing in demarcated land, so option D is correct.

7. In the context of food and nutritional security of India, enhancing the 'Seed Replacement Rates' of various crops helps in achieving the food production targets of the future. But what is/are the constraint/ constraints in its wider / greater implementation?

- (1). There is no National Seeds Policy in place.
- (2). There is no participation of private sector seed companies in the supply of quality seeds of vegetables and planting materials of horticultural crops.
- (3). There is a demand-supply gap regarding quality seeds in case of low value and high volume crops.

Select the correct answer using the code given below.

- A. 1 and 2
- B. 3 only
- C. 2 and 3
- D. None

Answer: B

Solution: National Seed policy begins in year 2002, so statement 1 is not valid, which eliminates option A. Public sector produces 51% of seed production in bulk quantities at low cost while Private sector produces seeds with less volume and more price, so statement 2 is not valid, which eliminates option A and C. Since the involvement of both Public and private sectors in seed production, there exists gap in demand and supply, as marginal farmers with maximum land buys cheaper seeds from unorganized sector, which makes option B correct as statement 3 is valid since their existing demand supply gap of quality of seed at less price with more production.

8. Ibadat Khana at Fatehpur Sikri was

- A. the mosque for the use of Royal Family
- B. Akbar's private chamber prayer
- C. the hall in which Akbar held discussions with scholars of various religions.

D. the room in which the nobles belonging to different religions gathered to discuss religious affairs

Answer: C

Solution: The Ibadat Khana at Fatehpur Sikri was the hall where Akbar used to discuss with scholars of different religions. This was initially built for the purpose of debating among Sunni Muslims for the purpose of insignificant argument, hence option C is correct. Option A and B are incorrect as Ibadat Khana does not refer to place for prayers, nor was a confidential place of Akbar.

9. What was/were the object/objects of Queen Victoria's Proclamation (1858)?

- (1). To disclaim any intention to annex Indian States
- (2). To place the Indian administration under the British Crown
- (3). To regulate East India Company's trade with India

Select the correct answer using the code given below.

- A. 1 and 2 only
- B. 2 only
- C. 1 and 3 only
- D. 1, 2 and 3

Answer: A

Solution: On 1st Nov 1858, Lord Canning sent forth royal proclamation in Allahabad that declare that the queen assumed government of India for future policy of British Rule in India. Queen Victoria declares that afterward India will rule in the name of British Monarch by Secretary of State. This description suggests that Queen Victoria's Proclamation concerns is to reject any intention to annex Indian States and to keep Indian administration under British Crown, which suggests that option A is correct as both statements 1 and 2 satisfies.

10. A community of people called Manganiyars is well-known for their

- A. martial arts in North-East India
- B. musical tradition in North-West India
- C. classical vocal music in South India
- D. pietra dura tradition in Central India

Answer: B

Solution: Manganiyars are hereditary professional musicians belongs to Muslim communities which are famous for classical folk music from Barmer and Jaisalmer in Rajasthan, which is North-West of India, so option B is correct.

11. Consider the following statements:

(1). 'Bijak' is a composition of the teachings of Saint Dadu Dayal.

(2). The Philosophy of Pushti Marg was propounded by Madhvacharya.

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

Answer: D

Solution: Bijak refers to document having sacred texts which was composed by Saint Kabir carrying holy sculpture for followers of Kabirpanthi religion. This description shows that statement 1 is incorrect as Bijak is not related to teachings of Saint Dadu Dayal but related to teachings of Saint Kabir. Philosophy of Pushti Marg or path of grace was propounded by Vallabhacharya and not Madhvacharya, hence statement 2 is also incorrect. Since both statements 1 and 2 are incorrect, so option D is correct.

12. With reference to Buddhist history, tradition and culture in India,

Famous shrine	Location
(1). Tabo monastery and temple complex	Spiti Valley
(2). Lhotsava Lhakhang temple, Nako	Zaskar Valley
(3). Alchi temple complex	Ladakh

consider the following pairs:

Which of the pairs given above is/are correctly matched?

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only

D. 1, 2 and 3

Answer: C

Solution: Tabo monastery and temple is a complex located in Tago village of Spiti valley in state of Himachal Pradesh, so statement 1 is correct. Lhotsava Lhakhang temple is situated in Nako village in Kinnaur district of Himachal Pradesh and not in Zaskar Valley, so this statement is incorrect. Alchi Temple complex is located in Alchi village of Ladakh, so this statement is correct. Since both statements 1 and 3 are correct, so option C is correct.

13. Consider the following pairs:

(1). Garba	Gujarat
(2). Mohiniattam	Odisha
(3). Yakshagana	Karnataka

Which of the pairs given above is/are correctly matched?

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Answer: C

Solution: Garba, is a popular folk dance of Gujarat which is normally performed by ladies on navratri days, so this statement is correct. Mohiniattam dance from Kerala begins in 16th century CE which is Indian classical form of dance, so this statement is not correct. Yakshagana is a form of theatre dance having music with dialogues originates from state of Karnataka, which is correct. Since only statements 1 and 3 are correct while statement 2 is incorrect, so option C is correct.

14. With reference to India's culture and tradition, what is 'Kalaripayattu'?

- A. It is an ancient Bhakti cult of Shaivism still prevalent in some parts of South India
- B. It is an ancient style bronze and brasswork still found in southern part of Coromandel area

- C. It is an ancient form of dance-drama and a living tradition in the northern part of Malabar
- D. It is an ancient martial art and a living tradition in some parts of South India

Answer: D

Solution: As per Indian culture, Kalaripayattu serves as ancient martial art which also highlights certain living tradition of people from South India. It comprises of kicks, grappling preset forms, weaponry and healing methods, so option D is correct.

15. The Ghadr (Ghadar) was a

- A. revolutionary association of Indians with headquarters at San Francisco
- B. nationalist organization operating from Singapore
- C. militant organization with headquarters at Berlin
- D. communist movement for India's freedom with head-quarters at Tashkent

Answer: A

Solution: In 1913, Ghadar Party was formed at United states with their headquarters in San Francisco. It consisted primarily of immigrant Punjabis from British India.

16. With reference to the Indian history of art and culture, consider the following pairs:

Famous work of sculpture	Site
(1). A grand image of Buddha's Mahaparinirvana with numerous celestial musicians above and the sorrowful figures of his followers below	Ajanta
(2). A huge image of Varaha Avatar (boar incarnation) of Vishnu, as he rescues Goddess Earth from the deep and chaotic waters, sculpted on rock	Mount Abu
(3). "Arjuna's Penance" / "Descent of Ganga" sculpted on the surface of huge boulders	Mamallapuram

Which of the pairs given above is/ are correctly matched?

- A. 1 and 2 only
- B. 3 only,
- C. 1 and 3 only
- D. 1, 2 and 3

Answer: C

Solution: Ajanta caves are the rock which is cut just like panoramic horse shoe shaped that carries Chaitya halls or shrives and monasteries. Out of these caves, the 26th cave has huge image of Buddha Mahaparinirvana. It is noted that there are many temples to Varaha Avatar of Vishnu, out of which the famous is Varaha Lakshmi temple which is in Andhra Pradesh. The oldest Varaha temple is located in Hampi, so point 2 is incorrect. Point 3 is correct as Mahabalipuram or Mamallapuram is a place where descent of Ganges, Arjun Penance portrayed in made of stone and is present in Pallava heritage site.

17. Chaitra 1 of the national calendar based on the Saka Era corresponds to which one of the following dates of the Gregorian calendar in a normal year of 365 days?

- A. 22 March (or 21st March)
- B. 15th May (or 16th May)
- C. 31st March (or 30th March)
- D. 21st April (or 20th April)

Answer: A

Solution: The Saka Era national calendar having Chaitra as first month and year with 365 days was taken into consideration with Gregorian calendar for Gazette of India, Broadcasting of News by All India Radio and for calendars from Government of India. It is noted that dates of national calendar correspondences to dates of Gregorian calendar where 1 Chaitra which falls on 22 March and other on 21 March in leap year, so option A is correct.

18. With reference to the famous Sattriya dance, consider the following statements:

- (1). Sattriya is a combination of music, dance and drama.
- (2). It is a centuries-old living tradition of Vaishnavites of Assam. (3). It is based on classical Ragas and Talas of devotional songs composed by Tulsidas, Kabir and Mirabai.

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

Answer: B

Solution: Sattriya dance is among 8th classical dance forms of India introduced in 15th century A.D by Vaishnava saint in Assam by incorporating other elements from various treatises and folk dances. It covers treasures of centuries old living tradition of Vaishnavites of Assam. With this both statements 1 and 2 are correct as it is not only dance, but has treatises with folk dance, so option B is correct. Option C is incorrect as Sattriya dance is not based on classical Ragas and Talas.

19. The 1929 Session of Indian National Congress is of significance in the history of the Freedom Movement because the

- A. Attainment of Self-Government was declared as the objective of the Congress
- B. Attainment of Poorna Swaraj Was adopted as the goal of the Congress
- C. Non-Cooperation Movement was launched
- D. Decision to participate in the Round Table Conference in London was taken

Answer: B

Solution: In 1929, Lahore Session of Indian National Congress is important in the history of Indian Freedom as members of INC passed the resolution in which they declare Poorna Swaraj as their main goal, so option B is correct. Option A is not correct as 1929 Session of Indian National Congress is not related with accomplishment of Self-Government as objective of Congress. Option C is not valid as 1929 Session of Indian National Congress is not concern with Non-Cooperation Movement.

20. The Partition of Bengal made by Lord Curzon in 1905 lasted until

- A. the First World War when Indian troops were needed by the British and the partition was ended.
- B. King George V abrogated Curzon's Act at the Royal Darbar in Delhi in 1911
- C. Gandhiji launched his Civil Disobedience Movement
- D. the Partition of India, in 1947 when East Bengal became East Pakistan

Answer: B

Solution: Partition of Bengal was carried out by Lord Curzon in India. Objective was to weaken the growing spirit of Nationalism and administrative convenience. In 1911 partition was annulled and also capital was shifted from Calcutta to Delhi. Statement B is correct as partition of Bengal by Lord Curzon in 1905 lasted till King George V to abolish Curzon's Act at Royal Darbar in Delhi in 1911 while all other options A, C and D are incorrect.

21. Which one of the following is the correct sequence of a food chain?

- A. Diatoms-Crustaceans-Herrings
- B. Crustaceans-Diatoms-Herrings
- C. Diatoms-Herrings-Crustaceans
- D. Crustaceans-Herrings-Diatoms

Answer: A

Solution: Statement 1 is correct as Diatoms are primary producers such as algae which are eaten by Crustaceans that are small ocean organisms while herrings is fish which eats crustaceans, so it is a correct food chain. Statement 2 is incorrect as the correct sequence of food chain is Diatoms-

Crustaceans-Herrings and not Crustaceans-Diatoms-Herrings as supported by statement (1). Statement 3 is incorrect as the correct sequence of food chain from the options given is Diatoms-Crustaceans- Herrings and not Diatoms-Herrings-Crustaceans as supported by explanation in statement (1). Statement 4 is also incorrect as the correct sequence of food chain from the options given is Diatoms-Crustaceans- Herrings and not Crustaceans-Herrings-Diatoms as supported by explanation in statement (1). Hence we see that the correct option is A.

22. Consider the following statements regarding 'Earth Hour':

- (1). It is an initiative of UNEP and UNESCO.
- (2). It is a movement in which the participants switch off the lights for one hour on a certain day every year.
- (3). It is a movement to raise the awareness about the climate change and the need to save the planet.

Which of the statements given above is / are correct?

- A. 1 and 3 only
- B. 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

Answer: C

Solution: Earth Hour is a worldwide movement related to organization of planets which was organized by World Wide Fund for Nature; hence it is not initiated by UNEP and UNESCO, so statement 1 is incorrect.

Statement 2 is correct as this event is held across the world once in an year during end of March from 8:30 to 9:30 p.m. which encourages individual, communities, households and businesses to turn off their non- essential lights towards commitment to planet earth. Statement 3 is also correct as this movement moves up alertness regarding the climate change and initiate people to take steps to save planet. Since both statements 2 and 3 are correct, so the correct option is C.

23. Consider the following international agreements:

- (1). The International Treaty on Plant Genetic Resources for Food and Agriculture
- (2). The United Nations Convention to Combat Desertification
- (3). The World Heritage Convention

Which of the above has / have a bearing on the biodiversity?

- A. 1 and 2 only
- B. 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Answer: D

Solution: International Treaty on Plant Genetic Resources for Food and Agriculture is a complete international agreement in accordance with Convention on Biodiversity, so statement 1 is correct. United Nations Convention to Combat Desertification, established in 1994 is an international agreement which focus on land degradation and desertification; hence it is related to biodiversity, so it is also correct.

World Heritage Convention concerns with protection of World Cultural and Natural Heritage, hence it is also correct. Since all the three statements are correct, so the correct option is D.

24. Consider the following pairs:

National Highway	Cities connected
(1). NH 4	Chennai and Hyderabad
(2). NH 6	Mumbai and Kolkata
(3). NH 15	Ahmedabad and Jodhpur

Which of the above pairs is/are correctly matched?

- A. 1 and 2 only
- B. 3 only
- C. 1,2 and 3
- D. None

Answer: D

Solution: National Highway 4 is major highway in Western and Southern India which connects mainly Mumbai- Chennai segment on which Hyderabad is not located, so it is incorrect. National Highway 15 is another highway which connects Samakhiali in Gujarat with Pathankot in Punjab and does not pass through Jodhpur, so it is also incorrect. National Highway 6 runs through Gujarat, Maharashtra, Chhattisgarh, Odisha, Jharkhand and West Bengal and passes through cities such as Surat, Dhule, Jalgaon, Bhusaval, Akola, Amravati, Nagpur, Bhandara, Durg, Raipur, Mahasamund, Sambalpur and Kolkata. So this highway does not

pass through Mumbai, hence it is incorrect. Since all the statements are incorrect, so the correct option is D.

25. Consider the following towns of India:

- (1). Bhadrachalam
- (2). Chanderi
- (3). Kancheepuram
- (4). Kamal

Which of the above are famous for the production of traditional sarees / fabric?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1, 2 and 3
- D. 1, 3 and 4

Answer: B

Solution: Kancheepuram is a place which serves as traditional home industry for its well-known crafted sarees, so this is correct. Chanderi, in Madhya Pradesh is famous for production of Pure Silk, Chanderi Cotton and Silk Cotton fabrics which serve as famous centre for traditional saree weavers, hence it is also correct. Bhadrachalam is a religious place in Orissa which is not related to production of traditional sarees or fabric, so it is incorrect. Karnal in Haryana is also an invalid option as this is not much known for traditional fabric. With this only 2 and 3 are correct, hence correct option is B.

26. The power to increase the number of judges in the Supreme Court of India is vested in

- A. the President of India
- B. the Parliament
- C. the Chief Justice of India
- D. the Law Commission

Answer: B

Solution: As per Article 124 of Constitution of India, there appears that as per law, Parliament can prescribe number of judges to Supreme Court. Further it is noticed that Parliament has passed an Act which is known as Supreme Court Act that will show number of judges at Supreme Court of

India. This description shows that Parliament has a power to increase the number of judges in Supreme Court of India, so option B is correct.

27. Among the following organisms, which one does not belong to the class of other three?

- A. Crab
- B. Mite
- C. Scorpion
- D. Spider

Answer: A

Solution: The organisms discussed in this questions belongs to Subphylum Chelicerata, which further is categorized into various classes. The Chelicerata class Arachnida contains spiders, scorpions and mites while class Malacostraca contains Crabs, so A is correct as Crab belongs to different class among other organisms.

28. Consider the following statements:

- (1). Maize can be used for the production of starch.
- (2). Oil extracted from maize can be a feedstock for biodiesel.
- (3). Alcoholic beverages can be produced by using maize.

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

Answer: D

Solution: Maize in India can be used for production of starch, oil and sweeteners which is applied for thickening of sauces or soups, so statement 1 is correct. Maize oil is used for production of biodiesel as it has better cloud point as compared to yellow grease, so statement 2 is also correct. Alcoholic beverages such as chicha and type of whiskey are produced from maize, so statement 3 is also correct, hence option D is appropriate answer.

29. Consider the following techniques/phenomena:

(1). Budding and grafting in fruit plants (2).

Cytoplasmic male sterility

(3). Gene silencing

Which of the above is/are used to create transgenic crops?

A. 1 only

B. 2 and 3

C. 1 and 3

D. None

Answer: D

Solution: Transgenic plants can be constructed in the presence of DNA deoxyribonucleic acid which is inside cells of living organisms which stores organism's genetic information. These plant carry genes that are artificially inserted in plant through pollination which basically followed by transferring of DNA among unrelated species. With this it is noted that all options mentioned in the questions are incorrect as above approaches does not involve transferring of DNA.

30. The power of the Supreme Court of India to decide disputes between the Centre and the States falls under its

A. Advisory jurisdiction

B. Appellate jurisdiction

C. Original jurisdiction

D. Writ jurisdiction

Answer: C

Solution: Supreme Court carries special advisory jurisdiction which is related to matters referred by the President of India where there are provisions for reference or appeal to Court under certain Articles concerning matters on transactions in securities, Terrorist Activities, Consumer Protection etc. so this incorrect. Supreme Court carries special Appellate Jurisdiction where power given to court to hear appeals from lower courts that can be reverse or modify as per discretion, so this is also not correct. Supreme Court carries exclusive original jurisdiction which covers dispute among Government of India and States on law or fact where existence or extent of legal right depends, so option C is correct

31. Which of the following is/are the example/examples of chemical change?

(1). Crystallization of sodium chloride (2).

Melting of ice

(3). Souring of milk

Select the correct answer using the code given below.

A. 1 and 2 only

B. 3 only

C. 1, 2 and 3

D. None

Answer: B

Solution: Chemical changes took place when chemical reactions among substances form new products. Crystallization of sodium chloride is incorrect as solubility of sodium chloride in water will not result in excess change in freezing and boiling points. Melting of ice is also incorrect as it is a physical change since it employs change in physical state of water from ice in solid state to water in liquid state. Souring of milk is a chemical change as it results in production of sour tasting lactic acid, so this is correct, hence option B is correct.

32. Consider the following pairs:

Region	Well-known for the production of
(1). Kinnaur	Areca nut
(2). Mewat	Mango
(3). Coromandel	Soya bean

Which of the above pairs is/are correctly matched?

A. 1 and 2 only

B. 3 only

C. 1, 2 and 3

D. None

Answer: D

Solution: From the above question, mango crop production is mainly in areas of Ambala, Panipat, Karnal, Yamunanagar and Maharashtra and not in Mewat, so it is incorrect. The Areca Nut crop production is not in

Kinnaur region whereas it is present in coastal regions, so it is also not correct. Soya Bean production in India is mainly in Madhya Pradesh and not in Coromandel since it is famous for peanut crop productions, so this is also incorrect. From the above description we see that none of the above options are correct, hence D is the correct option.

33. Which of the following pair is/are correctly matched?

Spacecraft	Purpose
(1). Cassini-Huygens	Orbiting the Venus and transmitting data to the Earth
(2). Messenger	Mapping and investigating the Mercury
(3). Voyager 1 and 2	Exploring the outer solar system

Select the correct answer using the code given below.

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Answer: B

Solution: In the question given above, we see that Cassini–Huygens relates to mission which was conducted for launch on Saturn and not with an idea of orbiting around Venus and sending data to Earth, so this is incorrect. Messenger Spacecraft is a mission conducted by NASA for finding planet Mercury, hence it is correct. Voyager 1 and 2 Spacecraft serves as mission by NASA in to explore outer space of solar system, hence it is also correct. We see that both statements 2 and 3 are correct, so option B is correct.

34. Which of the following statements is / are correct regarding vegetative propagation of plants?

- (1). Vegetative propagation produces clonal population. (2). Vegetative propagation helps in eliminating the virus.
- (3). Vegetative propagation can be practiced most of the year. Select the correct answer using the code given below.

- A. 1 only
- B. 2 and 3 only

- C. 1 and 3 only
- D. 1, 2 and 3

Answer: C

Solution: In Plants, the vegetative propagation corresponds to asexual reproduction where single plant gets involved whose offspring results in single parent that serves as clones of parent. Only seed and micro propagation will get rid of virus and vegetative propagation that can be practiced all through the year. It is seen that advanced vegetative cloning as Meristem culture will help to get rid of virus. So we see that statement 1 and 3 are correct as Vegetative propagation gives clonal population which can be worked out in most of the year which statement 2 is incorrect as Vegetative propagation is responsible for virus diseases in plants.

35. In addition to fingerprint scanning, which of the following can be used in the biometric identification of a person?

- (1). Iris scanning
- (2). Retinal scanning
- (3). Voice recognition

Select the correct answer using the code given below.

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Answer: D

Solution: Biometric identification or verification about a person clearly describes distinguishing biological traits of a person. It covers iris scanning, retinal scanning, speech and voice recognition, face and finger print recognition and DNA match. All options in the questions are correct, hence D is correct.

36. Which one of the following is the process involved in photosynthesis?

- A. Potential energy is released to form free energy
- B. Free energy is converted into potential energy and stored
- C. Food is oxidized to release carbon dioxide and water

D. Oxygen is taken, and carbon dioxide and water vapour are given out

Answer: B

Solution: Photosynthesis is a process where green plants use sunlight to make carbohydrates from carbon dioxide and water. Such plant absorbs water by roots thereby giving carbon dioxide from air which enters in leaves by stomata. In photosynthesis, glucose is formed from water and carbon dioxide which is decomposed into oxygen releases hydrogen. With this we see that option B is correct while all other options are incorrect.

37. With reference to Neem tree, consider the following statements: (1). Neem oil can be used as a pesticide to control the proliferation of some species of insects and mites.

(2). Neem seeds are used in the manufacture of biofuels and hospital detergents.

(3). Neem oil has applications in pharmaceutical industry.

Which of the statements given above is/are correct?

A. 1 and 2 only

B. 3 only

C. 1 and 3 only

D. 1, 2 and 3

Answer: D

Solution: Neem oil is extracted from seeds of neem tree that has insect repellent and insecticidal properties and can be used for production of biofuel and are used in pest control, cosmetics, medicines. Statements 1, 2 and 3 are correct as Neem oil are applied in pesticide in order to control proliferation of species of insects and are used in pharmaceutical industry while neem seeds are used in manufacture of biofuels.

38. Consider the following statements regarding a No-Confidence Motion in India:

(1). There is no mention of a No-Confidence Motion in the Constitution of India.

(2). A Motion of No-Confidence can be introduced in the Lok Sabha only.

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

Answer: C

Solution: There is no description of No-Confidence motion in Constitution of India. This is designed as per rules of business of Lok Sabha, whereas it can be introduced only in Lok Sabha and not in Rajya Sabha, so both statements are correct hence C is correct.

39. Consider the following statements:

(1). The President shall make rules for the more convenient transaction of the business of the Government of India, and for the allocation among Ministers of the said business.

(2). All executive actions of the Government of India shall be expressed to be taken in the name of the Prime Minister.

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

Answer: A

Solution: Option 1 is correct refer Article 77(3) of constitution of India. Option 2 is wrong because All executive actions of the Government of India shall be expressed to be taken in the name of the President.

40. If the interest rate is decreased in an economy, it will

- A. decrease the consumption expenditure in the economy
- B. increase the tax collection of the Government
- C. increase the investment expenditure in the economy
- D. increase the total savings in the economy

Answer: C

Solution: Decrease in interest rate in an economy will increase the money supply, thus increasing the investment expenditure. With low interest rates, the banks will have more leverage to lend money for businesses and to purchase households items making an individual to spend more. With this option C is correct as if interest rate is decreased, then there will be increase in investment expenditure in the economy.

41. Which of the following are the discretionary powers given to the Governor of a State?

- (1). Sending a report to the President of India for imposing the President's rule
 - (2). Appointing the Ministers
 - (3). Reserving certain bills passed by the State Legislature for consideration of the President of India
 - (4). Making the rules to conduct the business of the State Government
- Select the correct answer using the code given below.

- A. 1 and 2 only
- B. 1 and 3 only
- C. 2, 3 and 4 only
- D. 1, 2, 3 and 4

Answer: B

Solution: There are many discretionary powers given to Governor of State such as Reservation of certain Bills for consideration of President, recommendation for obligation of President's Rule in State, exercising duty as administrator of adjoining union territory, seeking information from Chief Minister in administrative and legislative matters of state, so with this we see that both statements 1 and 3 are correct. Statement 4 is incorrect as making rules to conduct business of State Government is the duty of Chief Secretary to exercise on instructions of Council of Ministers.

42. Consider the following statements:

A Constitutional Government is one which

- (1). places effective restrictions on individual liberty in the interest of State Authority
- (2). places effective restrictions on the Authority of the State in the interest of individual liberty

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

Answer: B

Solution: Constitutional government is set of fixed norms or principles that are acknowledged as fundamental law that protect the working of political power. It needs to balance between individual liberty. Such government does not keep efficient limitations on individual freedom in interest of State Authority, but keeps efficient limitations on Authority of State for sake of individual liberty, hence statement 2 is correct so B is correct option.

43. Which of the following is / are the function / functions of the Cabinet Secretariat?

- (1). Preparation of agenda for Cabinet Meetings
 - (2). Secretarial assistance to Cabinet Committees
 - (3). Allocation of financial resources to the Ministries
- Select the correct answer using the code given below.

- A. 1 only
- B. 2 and 3 only
- C. 1 and 2 only
- D. 1, 2 and 3

Answer: C

Solution: Cabinet Secretariat of India plays an important role in administrative system. There are several duties of Cabinet Secretariat as it involves in preparation of agenda of meetings of cabinet, keeping information related to decision making, gathering information for discussion in cabinet, to inform President, Vice-President and ministries about important activities and decisions, giving advices and discussing problems of inter-departmental nature, coordinate among various departments, finalize rules of business and distributes works to be carried out among various departments of government and to provide all secretariat assistance to other cabinet committees. This description suggests that statements 1 and 2 are correct while statement 3 is incorrect as fund allocation to various ministries is not the duty of Cabinet Secretariat, so option C is correct.

44. Which of the following are associated with 'Planning' in India?

- (1). The Finance Commission
- (2). The National Development Council
- (3). The Union Ministry of Rural Development
- (4). The Union Ministry of Urban Development
- (5). The Parliament

Select the correct answer using the code given below.

- A. 1, 2 and 5 only
- B. 1, 3 and 4 only
- C. 2 and 5 only
- D. 1, 2, 3, 4 and 5

Answer: C

Solution: In India, Planning Commission is mainly responsible for any planning involved in the country which involves Cabinet, National Development Council and Parliament for planning approvals. It is seen that Parliament is linked with Planning in India along with its active support from National Development Council which laid certain guidelines for formulation of National Plan, so this describes 2 and 5 as correct description, hence C is the correct option.

45. What are the benefits of implementing the 'Integrated Watershed Development Programme'?

- (1). Prevention of soil runoff
- (2). Linking the country's perennial rivers with seasonal rivers
- (3). Rainwater harvesting and recharge of groundwater table
- (4). Regeneration of natural vegetation

Select the correct answer using the code given below.

- A. 1 and 2 only
- B. 2, 3 and 4 only
- C. 1, 3 and 4 only
- D. 1, 2, 3 and 4

Answer: C

Solution: Integrated Watershed Development Programme re-establishes ecological balance related to harnessing, concerning and developing ruined natural resources. The idea of IWDP is to save soil run off, renewal of natural vegetation, implementing rain water harvesting, which depict that statements 1, 3 and 4 are correct which makes option C correct. Statement 2 is incorrect as recharging of ground water table

excluding connection of countries among perennial rivers with seasonal rivers.

46. In the Constitution of India, promotion of international peace and security is included in the

- A. Preamble to the Constitution
- B. Directive Principles of State Policy
- C. Fundamental Duties
- D. Ninth Schedule

Answer: B

Solution: In Article 51 of Constitution of India under part IV, Directive Principles of State Policy serves as guidelines/principles issued by central and state governments for promotion of international peace and security, hence option B is correct. Option A is not correct as Preamble to Constitution is concise statement of principles having many speeches and judicial judgment and not promoting to international peace and security. Option C is invalid as Fundamental Duties serves as moral duty of citizens in promoting spirit of patriotism and not promoting international peace and security. Option D is incorrect as Ninth Schedule engaged in purview of judicial review violating fundamental rights and not related to promoting to international peace and security.

47. The national motto of India, 'Satyameva Jayate' inscribed below the Emblem of India is taken from

- A. Katha Upanishad
- B. Chandogya Upanishad
- C. Aitareya Upanishad
- D. Mundaka Upanishad

Answer: D

Solution: Satyameva Jayate means Truth Alone Triumphs which was taken from Mundaka Upanishad which serves as National Motto of India inscribed at bottom of National Emblem in Devanagiri script, so option D is correct.

48. The scientific view is that the increase in global temperature should not exceed 2 °C above pre-industrial level. If the global temperature increases beyond 3 °C above the pre-industrial level, what can be its possible impact/impacts on the world?

(1). Terrestrial biosphere tends toward a net carbon source (2).

Widespread coral mortality will occur.

(3). All the global wetlands will permanently disappear.

(4). Cultivation of cereals will not be possible anywhere in the world.

Select the correct answer using the code given below.

A. 1 only

B. 1 and 2 only

C. 2, 3 and 4 only

D. 1, 2, 3 and 4

Answer: B

Solution: Global warming of 2 °C above pre-industrial levels is not safe as it result in climate change impacts that increases largely resulting in threats to ecosystems, risk of abrupt climate change impacts and unprecedented high-temperature climate regimes so with this statements 1 and 2 are correct. On increase of global temperature affects pattern of cereal cultivation but it will not be impossible to cultivate cereals, hence statement 3 and 4 are incorrect, so option B is correct.

49. What is the correct sequence of occurrence of the following cities in South-East Asia as one proceeds from south to north?

(1). Bangkok

(2). Hanoi

(3). Jakarta

(4). Singapore

Select the correct answer using the code given below.

A. 4-2-1-3

B. 3-2-4-1

C. 3-4-1-2

D. 4-3-2-1

Answer: C

Solution: The correct sequence of South-East Asia countries from South to North can be noted by considering individual latitudes of cities. We seed that Bangkok is 13.75° North, Hanoi is 21° North, Jakarta is 62° South while Singapore is 13° North, so the sequence of above

countries when arranged from South to North will be Jakarta, Singapore, Bangkok and Hanoi, so option C is correct.

50. Turkey is located between

- A. Black Sea and Caspian Sea
- B. Black Sea and Mediterranean Sea
- C. Gulf of Suez and Mediterranean Sea
- D. Gulf of Aqaba and Dead Sea

Answer: B

Solution: Turkey is located in Middle East with its territory in Europe and Asia and having its coastal borders on Mediterranean sea on South- West and Black sea on North, so option B is correct. Option A is incorrect as Caucasus having border of Europe and Asia lies in between Black sea and Caspian Sea. Option C is incorrect as Egypt is located between Gulf of Suez and Mediterranean Sea. Option D is incorrect as Jordan is situated between Gulf of Aqaba and Dead Sea.

51. The most important strategy for the conservation of biodiversity together with traditional human life is the establishment of

- A. biosphere reserves
- B. botanical gardens
- C. national parks
- D. wildlife sanctuaries

Answer: A

Solution: Biodiversity concerns with number of different species living in a particular region which plays important role in ecosystem. Biosphere reserve is a protected area where land is divided into various zones for particular activity which preserves genetic diversity in ecosystems by saving wild populations and life style of tribals, plant and animal genetic resources, so option A is correct. Options B, C and D are not related to conservation of Biodiversity.

52. Which one of the following Schedules of the Constitution of India contains provisions regarding anti-defection?

- A. Second Schedule
- B. Fifth Schedule
- C. Eighth Schedule
- D. Tenth Schedule

Answer: D

Solution: In Constitution of India, 10th Schedule which was introduced by 52nd Amendment in 1985 is related to Anti-Defection Act included by Ministry during Rajiv Gandhi rule which has provisions for disqualification of elected members on grounds of defection to other political party, so option D is correct. Option A is not correct as Second schedule is related to provisions of President, Governors of States, Speaker, Deputy Chairman, Judges, Controller and Auditor-General. Option B is incorrect as Fifth schedule is related to provisions of Administration and Control of Scheduled Areas and Scheduled Tribes. Option C is incorrect as Eighth schedule is related to details about recognized languages.

53. Consider the following pairs:

Hills	Region
(1). Cardamom Hills	Coromandel Coast
(2). Kaimur Hills	Konkan Coast
(3). Mahadeo Hills	Central India
(4). Mikir Hills	North-East India

Which of the above pairs are correctly matched?

- A. 1 and 2
- B. 2 and 3
- C. 3 and 4
- D. 2 and 4

Answer: C

Solution: Cardamom hill lies in southern part of Western Ghats in Kerala and Tamil Nadu while Coromandel coast is coast of Tamil Nadu, where Cardamom hill is not located so 1 is not correct. Kaimur hill is located in Vindhya that spreads from Madhya Pradesh to Bihar which is away from Konkan coast, so 2 is not correct. Mahadeo hill is located in Madhya Pradesh in Central India, so 3 is correct. Mikir hill is part of Karbi

angling plateau located in North East India, so 4 is correct. Since 3 and 4 are only correct, so option C is correct.

54. Which one of the following pairs does not form part of the six systems of Indian Philosophy?

- A. Mimamsa and Vedanta
- B. Nyaya and Vaisheshika
- C. Lokayata and Kapalika
- D. Sankhya and Yoga

Answer: C

Solution: There are many traditions of philosophical thought which originates in Indian subcontinent such as Hindu philosophy, Buddhist philosophy and Jain philosophy. There are 6 Systems of Indian Philosophy such as Samkya, Yoga, Naya, Mimamsa, Vedanta and Vaiseshika. So we see that according to the options shown, C is correct as Lokayata & kapalika are not the part of Hindu orthodox Philosophy but are related to heterodox non hindus philosophy.

55. Consider the following pairs:

Wetlands	Confluence of rivers
(1). Harike Wetlands	Confluence of Beas and Satluj / Sutlej
(2). Keoladeo Ghana National Park	Confluence of Banas and Chambal
(3). Kolleru Lake	Confluence of Musi and Krishna

Which of the above pairs is/are correctly matched?

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Answer: A

Solution: Harike Wetland is a man-made wetlands located in Punjab which is near the confluence of Beas and Sutlej rivers, so 1 is correct. Keoladeo is National Park located in Madhya Pradesh near the confluence of Gambhir and Banganga rivers and not near confluence of Banas and Chambal, so it is not correct. Kolleru lake in Andhra Pradesh is a fresh water lake lies between Krishna and Godavari river deltas, so it is incorrect. Since 2 and 3 are incorrect, it eliminates options B, C and D.

56. Consider the following rivers:

- (1). Barak
- (2). Lohit
- (3). Subansiri

Which of the above flows / flow through Arunachal Pradesh?

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Answer: B

Solution: The rivers which flow through Arunachal Pradesh are Siang, Kameng Subansiri, Dirang, Lohit, Tawang, Dibhang and Tirap. It is seen that Lohit and Subansiri are tributaries of Brahmaputra River that flows through Arunachal Pradesh, so both 2 and 3 are correct. 1 is incorrect as Barak river originates in Manipur and flows through Mizoram and Assam, so option B is correct.

57. With reference to the cultural history of India, the term 'Panchayatan' refers to

- A. an assembly of village elders
- B. a religious sect
- C. a style of temple construction
- D. an administrative functionary

Answer: C

Solution: With respect to cultural history of India, Panchayatan refers to the type of style used for construction of temple, so option C is correct.

Options A, B and D are incorrect as Panchayat does not relate to gathering of village elders, nor is part of religious section and does not work as administrative functions.

58. The seasonal reversal of winds is the typical characteristic of

- A. Equatorial climate
- B. Mediterranean climate
- C. Monsoon climate
- D. All of the above climates

Answer: C

Solution: Monsoon Climate is a seasonal reversal in wind patterns which carries dramatic change in precipitation which starts from south west direction in summers and while returning reverses its direction from North East. This description shows that option C is correct. Option A is not correct as The Equatorial Climate carries hot average temperature throughout the year with precipitation from 60 mm to 2000mm. It is not in effect with reversal winds.

59. In India, the problem of soil erosion is associated with which of the following?

- (1). Terrace cultivation
- (2). Deforestation
- (3). Tropical climate'

Select the correct answer using the code given below.

- A. I and 2 only
- B. 2 only
- C. 1 and 3 only
- D. 1, 2 and 3

Answer: B

Solution: Soil Erosion is degradation of soil which removes the trees and other vegetation that holds the soil together. If vegetation is removed, soil surface gets loosen through running water and wind. The rain water which absorbed by soil runs off the surface carrying soil, so it is the main cause of soil erosion. Statement 1 is incorrect as Terrace cultivation is a method of farming that protects soil where flat platforms are constructed in steps in series with slope and water gets retained on

each terrace that helps to raise crops. Statement 3 is incorrect as tropical climate is not related to soil erosion, hence only statement 2 is correct, hence option B is correct.

60. Which of the following have coral reefs?

- (1). Andaman and Nicobar Islands
- (2). Gulf of Kachchh
- (3). Gulf of Mannar
- (4). Sunderbans

Select the correct answer using the code given below.

- A. 1, 2 and 3 only
- B. 2 and 4 only
- C. 1 and 3 only
- D. 1, 2, 3 and 4

Answer: A

Solution: Coral reefs are different marine ecosystems carrying calcium carbonate structures which is secreted by corals. These are found in abundant in the areas of Gulf of Mannar, Palk bay, Gulf of Kutch, Andaman and Nicobar Islands and in Lakshadweep islands, so it seems that option A is correct. Since coral reefs are not found in Sunderbans, this eliminates option B and D.

61. In India, cluster bean (Guar) is traditionally used as a vegetable or animal feed, but recently the cultivation of this has assumed significance. Which one of the following statements is correct in this context?

- A. The oil extracted from seeds is used in the manufacture of biodegradable plastics
- B. The gum made from its seeds is used in the extraction of shale gas
- C. The leaf extract of this plant has the properties of anti-histamines
- D. It is a source of high quality biodiesel

Answer: B

Solution: Guar plant has functions for human and animal nutrition having gelling agent containing guar gum which demands for rising rapidly due to industrial usage in hydraulic fracturing during shale gas extraction. This gum is used to make sauces and ice cream and is the main ingredient of hydraulic fracturing process for extraction of oil and

gas from oil shale. Option B is correct while option A is incorrect as oil from seeds are not applied in biodegradable plastics.

62. With reference to 'Changpa' community of India, consider the following statement:

- (1). They live mainly in the State of Uttarakhand.
 - (2). They rear the Pashmina goats that yield a fine wool. (3). They are kept in the category of Scheduled Tribes.
- Which of the statements given above is/are correct?

- A. 1 only
- B. 2 and 3 only
- C. 3 only
- D. 1, 2 and 3

Answer: B

Solution: Changpa is the name of semi-nomadic people belongs to tribal community of Jammu & Kashmir and Ladakh. Changpa of Ladakh raising yaks and goats while nomadics will take care of herds. They were the pastrols of Pashima goats.

63. With reference to two non-conventional energy sources called 'coalbed methane' and 'shale gas', consider the following 'statements:

- (1). Coalbed methane is the pure methane gas extracted from coal seams, while shale gas is a mixture of propane and butane only that can be extracted from fine-grained sedimentary rocks.
- (2). In India abundant coalbed methane sources exist, but so far no shale gas sources have been found.

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

Answer: D

Solution: Coalbed methane is a form of natural gas extracted from coal beds and contains very little heavier hydrocarbons: propane or butane while Shale gas is made up of methane. Statement 1 is incorrect as Coalbed methane is a form of natural gas extracted from coal beds and

has butane and propane as hydrocarbons, while shale gas carries methane and not a mixture of propane and butane. In India, shale reserves are there in Cambay, Assam-Arakan, Gondwana, Krishna Godavari, Kaveri and Indo Gangetic plain, while Coalbed methane is only available at Asansol in West Bengal, so statement 2 is also incorrect.

Since both statements 1 and 2 are incorrect, so option D is right choice.

64. Which reference to Agni-IV Missile, which of the following statements is/are correct?

(1). It is a surface-to-surface missile. (2). It is fuelled by liquid propellant only.

(3). It can deliver one-tonne nuclear warheads about 7500 km away. Select the correct answer using the code given below.

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Answer: A

Solution: Agni-IV is 4th Agni series surface to surface missiles developed and tested by India which is light in weight and has two stages of propulsion (liquid and solid) and takes warhead of 1 tonne by traveling vertical distance of 850 km with its full range of 4,000 km. This description shows that statement 1 is correct while both statements 2 and 3 are incorrect, so option A is correct.

Region often in news	Country
(1). Chechnya	Russian Federation
(2). Darfur	Mali
(3). Swat Valley	Iraq

65. Consider the following pairs:

Which of the above pairs is/are correctly matched?

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only

D. 1, 2 and 3

Answer: A

Solution: Chechnya is located in South West Russian Federation, so it is correct. Darfur is located in Western Sudan and not in Mali, so it is incorrect. Swat valley is located in North West Pakistan and not in Iraq, so it is also incorrect. Hence from the above options we see that option A is correct.

66. Consider the following countries:

- (1). Denmark
- (2). Japan
- (3). Russian Federation
- (4). United Kingdom
- (5). United States of America

Which of the above are the members of the 'Arctic Council'?

- A. 1, 2 and 3
- B. 2, 3 and 4
- C. 1, 4 and 5
- D. 1, 3 and 5

Answer: D

Solution: Arctic Council is high level intergovernmental forum comprising of eight Arctic States which includes Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and United States, that addresses issues faced by Arctic governments and local people of Arctic. The options in the question suggests that Denmark, Russian Federation and United States of America are part of Arctic Council while Japan and United Kingdom are not, so option D is correct.

67. Recently, a series of uprisings of people referred to as 'Arab Spring' originally started from

- A. Egypt
- B. Lebanon
- C. Syria
- D. Tunisia

Answer: D

Solution: Arab Spring was a Tunisian Revolution involved in demonstration, protests, rioting and civil wars which was started in Arab world in 2010 in Tunisia and spread across countries of Arab League and its surroundings, so option D is correct.

68. In the context of Indian economy; which of the following is/are the purpose/purposes of 'Statutory Reserve Requirements'?

- (1). To enable the Central Bank to control the amount of advances the banks can create
- (2). To make the people's deposits with banks safe and liquid
- (3). To prevent the commercial banks from making excessive profits
- (4). To force the banks to have sufficient vault cash to meet their day-to-day requirements

Select the correct answer using the code given below.

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2, 3 and 4

Answer: B

Solution: Statutory reserves are liquid assets or an amount of money which is kept set aside by banks in Statutory Reserve Accounts. RBI directs commercial banks to keep reserves so as to make sure that commercial banks should carry safe cushioning of assets which can be paid to customer account on his demand. Statement 3 and 4 are incorrect as Reserve requirements are just for precautionary measures and will not stop banks from having extra profit, so this eliminates options C and D. With above explanation, we see that both statements 1 and 2 are correct, so correct option is B.

69. What is/are the facility/facilities the beneficiaries can get from the services of Business Correspondent (Bank Saathi) in branchless areas? (1). It enables the beneficiaries to draw their subsidies and social security benefits in their villages. (2). It enables the beneficiaries in the rural areas to make deposits and withdrawals.

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

Answer: C

Solution: The bank will select business correspondents which is bank saathi that will work as intermediaries among rural people and bank itself. With this, there will be no requirement for village level presence and in such case problems related to customer handling will get avoided which will work in closely located areas. Along with banking facility, this provision allows government subsidies and benefits of social security that are directly credited to particular beneficiaries' accounts with which, they can withdraw money from bank saathi in particular villages. So we see that both statements 1 and 2 are correct.

70. The terms 'Marginal Standing Facility Rate' and 'Net Demand and Time Liabilities', sometimes appearing in news, are used in relation to

- A. banking operations
- B. communication networking
- C. military strategies
- D. supply and demand of agricultural products

Answer: A

Solution: The Marginal standing facility is such that when a bank borrow from Reserve Bank in case of an emergency while Net Demand and Time Liabilities in banking will include current deposits, margins, balances, cash certificates, Mail Transfers and Demand Drafts. So these are the terms that are associated with Banking, hence option A is correct.

71. With reference to Balance of Payments, which of the following constitutes/constitute the Current Account?

- (1). Balance of trade
- (2). Foreign assets
- (3). Balance of invisibles (4).
Special Drawing Rights

- A. 1 only
- B. 2 and 3
- C. 1 and 3
- D. 1, 2 and 4

Answer: C

Solution: Balance of payments will monitor international monetary transactions for certain period which is for every quarter and calendar year. In this, every trade whether done by private and public sectors are accounted to find the inflow and outflow of money from the country. From the above options, we see that answer C is correct as Foreign assets related to particulars about drawing of Rights which lies under Capital account.

72. The main objective of the 12th Five-Year Plan is

- A. Inclusive growth and poverty reductions
- B. Inclusive and sustainable growth
- C. Sustainable and inclusive growth to reduce unemployment
- D. Faster, sustainable and more inclusive growth.

Answer: D

Solution: The 12th five year plan was presented by Planning Commission for 2012-2017 which aims to have growth rate of 8%. The main target of 12th plan is to focus on inclusive growth which encourages development of agriculture, education, health and social welfare through government funding resulting in fast and sustainable growth, so with this we see that statement D is correct. Options A, B and C are not correct as aim of 12th five year plan is not for inclusive growth, poverty reductions or sustainable and inclusive growth to reduce unemployment.

73. What does venture capital mean?

- A. A short-term capital provided to industries
- B. A long-term start-up capital provided to new entrepreneurs
- C. Funds provided to industries at times of incurring losses
- D. Funds provided for replacement and renovation of industries
- E. All the above

Answer: B

Solution: Venture capital is the money which is given by investors in order to start new company or to start any small business having good business idea or technology with clear long-term growth prospective. It serves as an important source of funding for new startups that have no investment to start. This description shows that option B is correct as Venture capital is a long-term start-up capital which is given for new entrepreneurs. Options A, C and D are incorrect as it is not related to any short-term capital given to industries or any fund for incurring losses nor money given for replacement and renovation of industries.

74. The sales tax you pay while purchasing a toothpaste is a

- A. tax imposed by the Central Government
- B. tax imposed by the Central Government but collected by the State Government
- C. tax imposed by the State Government but collected by the Central Government
- D. tax imposed and collected by the State Government

Answer: D

Solution: It is noted that maximum government's revenue comes from taxes which are paid directly and indirectly by individuals or companies. It is the job of the State government to impose and collect tax on goods other than newspaper. Option D is correct as State Government duty is to impose and collect tax on product. Option A is not correct as tax is not imposed by Central Government. Option B and C are incorrect as tax is imposed by State Government and collected by State Government only.

75. Every year, a month long ecologically important campaign/festival is held during which certain communities/ tribes plant saplings of fruit- bearing trees. Which of the following are such communities/tribes?

- A. Bhutia and Lepcha
- B. Gond and Korku
- C. Irula and Toda
- D. Sahariya and Agariya

Answer: B

Solution: It is seen that normally every monsoon, Gond and Korku tribes of Madhya Pradesh's celebrate Hari Jiroti which is month long festival of greenery in which the tribes plant trees in the memory of elders which are tribals plant saplings of fruit-bearing trees. With this we see that option B is correct while Option A is incorrect as Bhutia and Lepcha are people from Sikkim which are famous for weaving and wood carving. Option C is also incorrect as Irula and Toda are tribes from Nilgiris who graze animals, do fishing and work in Tea Plantations. Option D is also incorrect as Sahariya & Agariya are tribes from Uttar Pradesh who are hunters in forest.

76. Which of the following Kingdoms were associated with the life of the Buddha?

- (1). Avanti
- (2). Gandhara
- (3). Kosala
- (4). Magadha

Select the correct answer using the code given below.

- A. 1, 2 and 3
- B. 2 and 4
- C. 3 and 4 only
- D. 1, 3 and 4

Answer: C

Solution: Buddha during his period travelled across many places across Northeastern and Central part of India to teach people. During his preaching period, he covered 8 kingdoms such as Sakka, Kosala, Vajji, Angga, Magatha, Kasi, Vangsa and Avanti. Since Avanti was not directly associated with life of Buddha, so this statement is incorrect, which eliminates options A and D. Statement 2 which describes Gandhara as kingdom of Buddha is also incorrect as it serves as expansion of Mauryan empire which again was not associated directly with life of Buddha, so this eliminates option A and B. Statement 3 and 4 describing Kosala and Magadha as kingdom of Buddha are correct as king of Kosala results as Buddha's contemporary. For teachings, Buddha travelled across towns of Kosala and Magadha.

77. Which of the following are some important pollutants released by steel industry in India?

- (1). Oxides of sulphur
- (2). Oxides of nitrogen

(3). Carbon monoxide

(4). Carbon dioxide

Select the correct answer using the code given below.

A. 1, 3 and 4 only

B. 2 and 3 only

C. 1 and 4 only

D. 1, 2, 3 and 4

Answer: D

Solution: Steel manufacturing involves burning of coke which reacts with iron ore and releases iron and generates CO and CO₂ gases. With this, the release of oxides of sulphur, nitrogen, carbon monoxide and carbon dioxide occurs, so pollutants like SO_x and NO_x are released.

Hence options given in the question are all correct so D is the answer.

78. If you travel through the Himalayas, you are likely to see which of the following plants naturally growing there?

(1). Oak

(2). Rhododendron

(3). Sandalwood

Select the correct answer using the code given below

A. 1 and 2 only

B. 3 only

C. 1 and 3 only

D. 1, 2 and 3

Answer: A

Solution: Rhododendron plants grows on Montane Grasslands and Shrublands while indigenous oaks and maples found in Temperate Broadleaf and Mixed Forests on Himalayas so both Rhododendron and Oak are correct making option A as correct. Sandal wood does not naturally grown on Himalayas but grows in tropical dry region, so it is incorrect.

79. Lichens, which are capable of initiating ecological succession even on a bare rock, are actually a symbiotic association of

- A. Algae and Bacteria
- B. Algae and Fungi
- C. Bacteria and Fungi
- D. Fungi and Mosses

Answer: B

Solution: Lichen are dual organisms which serve as symbiotic among fungus and alga or blue-green algae. This statement shows that option B is correct as Lichen are capable of initiating ecological succession on bare rock which serves as symbiotic association of algae and fungi and not of algae and bacteria, bacteria and fungi, fungi and mosses.

80. In medieval India, the designations 'Mahattara' and 'Pattakila' were used for

- A. Military officers
- B. Village headmen
- C. Specialists in Vedic rituals
- D. Chiefs of craft guilds

Answer: B

Solution: Mahattara & Pattakila in medieval India were associated with Village Head men which were served as root words for patels later. We see that option B is correct while all other options are incorrect.

81. If you walk through countryside, you are likely to see some birds stalking alongside the cattle to seize the insects, disturbed by their movement through grasses.

Which of the following is/are such bird/birds?

- (1). Painted Stork
- (2). Common Myna
- (3). Black-necked Crane

Select the correct answer using the code given below.

- A. 1 and 2
- B. 2 only
- C. 2 and 3
- D. 3 only

Answer: B

Solution: Painted stork is a wading bird found in wetlands of plains of tropical Asia south of Himalayas, so it is not correct. Common myna is an invasive pest which is insect eaters found along the side of cattle during grazing, which is correct option. Black-necked crane is a rare bird species which breeds in high altitude wetlands and feed on plant roots, tubers, earthworms, grasshoppers, snails, shrimp, small fish, frogs, lizards, beetles, flies, small rodents, so this is also incorrect, hence option B is right option.

82. Which of the following adds/add carbon dioxide to the carbon cycle on the planet Earth?

- (1). Volcanic action
- (2). Respiration
- (3). Photosynthesis
- (4). Decay of organic matter

Select the correct answer using the code given below.

- A. 1 and 3 only
- B. 2 only
- C. 1, 2 and 4 only
- D. 1, 2, 3 and 4

Answer: C

Solution: Carbon cycle is biogeochemical cycle which exchanges carbon that gets released from ecosystems in shape of carbon dioxide gas which takes place in both plants and animals which breaks carbon organic molecules into carbon dioxide gas. Option A is correct as Volcanic action results in eruption of large amount of volcanic matter and carbon dioxide. Option B is correct as Respiration in humans and animals intakes oxygen and releases carbon dioxide. Option D is correct as Decay of organic matter results in production of carbon dioxide because of bacteria. Option C is incorrect as photosynthesis takes carbon dioxide and releases oxygen in air and did not add carbon dioxide in carbon cycle on planet Earth.

83. Which one of the following is the largest Committee of the Parliament?

- A. The Committee on Public Accounts
- B. The Committee on Estimates
- C. The Committee on Public Undertakings

D. The Committee on Petitions.

Answer: B

Solution: Committee on Estimates has 30 members elected by Lok Sabha every year from its members, so it forms largest Committee of Parliament among all, hence it is correct. Option A and C are not correct as both Committee on Public Accounts and Committee on Public Undertakings has 15 members elected by Lok Sabha with 7 members of Rajya Sabha. Option C is also incorrect as Committee on Petitions has 15 members which are nominated by Speaker.

84. Consider the following:

- (1). Bats
- (2). Bears
- (3). Rodents

=The phenomenon of hibernation can be observed in which of the above kinds of animals?

- A. 1 and 2 only
- B. 2 only
- C. 1, 2 and 3
- D. Hibernation cannot be observed in any of the above

Answer: C

Solution: Hibernation is idleness and metabolic depression state in animals that appears in cold weather making the low body temperature, slowing of heart beat and breath and reduces metabolism rate. It is found in animals such as Bat, Hedgehog, Bear, frog, Rodents etc. From the options, all three animals hibernate.

85. Brominated flame retardants are used in many household products like mattresses and upholstery. Why is there some concern about their use? (1). They are highly resistant to degradation in the environment.

(2). They are able to accumulate in humans and animals. Select the correct answer using the code given below.

- A. 1 only
- B. 2 only
- C. Both 1 and 2

D. Neither 1 nor 2

Answer: C

Solution: Brominated flame retardants used in plastics, textiles, electrical and electronic equipment comprises of chemical mixtures that added with certain products to makes them less flammable. These retardants are persistence in environment and are dangerous to both humans and animals. It means that both statements 1 and 2 are correct as Brominated flame retardants are highly resistant to degradation in environment and are able to accumulate in humans and animals.

86. The Radcliffe Committee was appointed to

- A. solve the problem of minorities in India
- B. give effect to the Independence Bill
- C. delimit the boundaries between India and Pakistan
- D. enquire into the riots in East Bengal

Answer: C

Solution: Radcliffe Committee appointed by Lord Mountbatten in 1947 having 4 members from Congress and 4 members from Muslim League draw boundaries between India and Pakistan just before Independence. This description shows that option C is correct. Options A, B and D are incorrect as the aim of Radcliffe Committee was not related to solving minorities issues, nor involved in outcomes of Independence Bill and related to any rioting.

87. Other than poaching, what are the possible reasons for the decline in the population of Ganges River Dolphins?

- (1). Construction of dams and barrages on rivers
- (2). Increase in the population of crocodiles in rivers
- (3). Getting trapped in fishing nets accidentally
- (4). Use of synthetic fertilizers and other agricultural chemicals in crop- fields in the vicinity of rivers

Select the correct answer using the code given below.

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1, 3 and 4 only

D. 1, 2, 3 and 4

Answer: C

Solution: In Ganges, population of river dolphin declines from 6000 to 1800 as Dolphins of Ganga river are threatened due to construction of dams, trapping by fisherman, industrial sewage, chemicals and synthetic fertilizers. This explanation suggests that statements 1, 3 and 4 are correct, hence option C is correct.

88. Which of the following phenomena might have influenced the evolution of organisms?

(1). Continental drift

(2). Glacial cycles

Select the correct answer using the code given below.

A. 1 only

B. 2 only

C. Both 1 and 2

D. Neither 1 nor 2

Answer: C

Solution: Evolution result in alteration of heritable traits of biological species over succeeding production. Continental drift theory based on large continent Pangaea broke glacial cycle leaving signs of evolution at both stages which influences evolution. With presence of unique primates found in Australia and South America, the effect of continental drift on evolution exists whose final evolution stage Genus Homo took place in last glacial cycles. With this we see that most appropriate answer is option C as both statements 1 and 2 are correct.

89. Consider the following diseases

(1). Diphtheria

(2). Chickenpox

(3). Smallpox

Which of the above diseases has/have been eradicated in India?

A. 1 and 2 only

B. 3 only

C. 1, 2 and 3

D. None

Answer: B

Solution: As per Carter Center for study about eradication of certain diseases along with CDC, WHO, UNICEF, India result in eradication of smallpox and polio in year 1979, so it makes option B correct.

90. With reference to a grouping of countries known as BRICS, consider the following statements:

(1). The First Summit of BRICS was held in Rio de Janeiro in 2009. (2). South Africa was the last to join the BRICS grouping.

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

Answer: B

Solution: BRICS relates to Brazil, Russia, India, China and South Africa, whose first summit was held in Yekaterinberg, in Russia in 2009. The Foreign Ministers of BRICS at 21st meeting in New York 2010 agreed for South Africa to become the member of BRICS. With this description, statement 1 is incorrect while statement 2 is correct, so option B is correct.

91. With reference to a conservation organization called Wetlands International', which of the following statements is/are correct?

(1). It is an intergovernmental organization formed by the countries which are signatories to Ramsar Convention.

(2). It works at the field level to develop and mobilize knowledge, and use the practical experience to advocate for better policies.

Select the correct answer using the code given below.

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

Answer: B

Solution: Wetlands International is a world wide Non Governmental Non-Profit Organisation which aims to save and protect wetlands. It helps the government bodies to amend and enhance policies through local, national and international advocacy. Statement 1 is incorrect as Ramsar Convention is an International modern treaty signed among various nations with an idea to conserve natural resources. The description shown will support statement 2, hence correct option is B.

1.	Dampa Tiger Reserve	Mizoram
2.	Gumti Wildlife Sanctuary	Sikkim
3.	Saramati Peak	Nagaland

92. Consider the following pairs

Which of the above pairs is / are correctly matched?

- A. 1 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Answer: C

Solution: Dampa Tiger Reserve is the largest wildlife sanctuary in Mizoram which was also declared as Tiger Reserve, so statement 1 is correct. Gumti wildlife sanctuary is in Tripura and not in Sikkim, so statement 2 is incorrect. Saramati peak is above surrounding peaks which is on boarder of Nagaland, so statement 3 is correct. Since statements 1 and 3 are correct, so option C is correct.

93. Consider the following languages:

- (1). Gujarati
- (2). Kannada
- (3). Telugu

Which of the above has/have been declared as 'Classical Language / Languages' by the Government?

- A. 1 and 2 only
- B. 3 only
- C. 2 and 3 only

D. 1, 2 and 3

Answer: C

Solution: Classical Language in India is a status which is inside the Republic of India given by Government of India. It is seen that at present there are six classical languages in India such as Tamil, Sanskrit, Kannada, Telugu, Malayali and Odia, with this option C is correct.

94. With reference to technologies for solar power production, consider the following statements:

- (1). 'Photovoltaics' is a technology that generates electricity by direct conversion of light into electricity, while 'Solar Thermal' is a technology that utilizes the Sun's rays to generate heat which is further used in electricity generation process.
- (2). Photovoltaics generate Alternating Current (AC), while Solar Thermal generates Direct Current (DC).
- (3). India has manufacturing base for Solar Thermal technology, but not for Photovoltaics.

Which of the statements given above is / are correct?

- A. 1 only
- B. 2 and 3 only
- C. 1, 2 and 3
- D. None

Answer: A

Solution: Photovoltaic is a Solar cell technology which generates electricity by direct conversion from light while Solar Thermal technology make use of sun rays to produce heat for electricity generation process. This descriptions show that statement 1 is correct. Statement 2 is not correct as Photovoltaics technology generate Direct Current while Solar Thermal technology produces Alternating Current. Statement 3 is invalid as India is a manufacture for both solar thermal cells and photovoltaic cells. Since statement 1 is correct hence option A is correct.

95. With reference to 'Global Environment Facility', which of the following statements is/are correct?

- A. It serves as financial mechanism for 'Convention on Biological Diversity' and 'United Nations Framework Convention on Climate Change'

- B. It undertakes scientific research on environmental issues at global level
- C. It is an agency under OECD to facilitate the transfer of technology and funds to underdeveloped countries with specific aim to protect their environment.
- D. Both A and B

Answer: A

Solution: Global Environment Facility is biggest public funding project which works on enhancing global environment. It funded Convention on Biological Diversity (CBD), United Nations Framework Convention on Climate Change (UNFCCC), UN Convention to Combat Desertification (UNCCD), Stockholm Convention on Persistent Organic Pollutants (POPs) and Minamata Convention on Mercury. We see that from the description option A is correct as Global Environment Facility serves as financial means for above organizations. Options B, C and D are incorrect as Global Environment Facility doesn't involve in scientific research on environmental issues across the globe nor an agency under OECD which transfers both technology and fund to underdeveloped countries.

96. With reference to Bombay Natural History Society (BNHS), consider the following statements:

- (1). It is an autonomous organization under the Ministry of Environment and Forests.
- (2). It strives to conserve nature through action-based research, education and public awareness.
- (3). It organizes and conducts nature trails and camps for the general public.

Which of the statements given above is/are correct?

- A. 1 and 3 only
- B. 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

Answer: C

Solution: Bombay Natural History Society is a membership organization working since 1883 started by citizens of Mumbai which focus of promotional activities related to cause of natural India. The idea behind this society focus on natural conservation by way of educating people through scientific research, so it clarifies that the description supports statements (2) and (3). Statement 1 is incorrect as it was a society

started by group of people and is not under Ministry of Environment and Forests.

97. Consider the following pairs:

Programme	Project Ministry
(1). Drought-Prone Area Programme	Ministry of Agriculture
(2). Desert Development Programme	Ministry of Environment and Forests
(3). National Watershed Development Project for Rainfed Areas	Ministry of Rural Development

Which of the above pairs

- A. 1 and 2 only
- B. 3 only
- C. 1, 2 and 3
- D. None

Answer: D

Solution: Drought Prone Area Programme is started by Ministry of Rural Development in 1973-74 which aims to relieve impact of droughts that happens on crops, livestock, humans and productivity of land mainly to drought proofing areas. Desert Development Programme was started in 1977-78 by Department of Land Resources, Ministry of Rural Development which mainly concerns with hot desert areas of Rajasthan, Gujarat, Haryana and cold desert areas of Jammu and Kashmir and Himachal Pradesh. National Watershed Development Project is started by Ministry of Agriculture. It is aimed at treating ruined lands using less cost and right technologies. With this we see that statements 1, 2 and 3 are incorrect, hence option D is correct.

98. Which one of the following pairs of islands is separated from each other by the 'Ten Degree Channel'?

- A. Andaman and Nicobar
- B. Nicobar and Sumatra

- C. Maldives and Lakshadweep
- D. Sumatra and Java

Answer: A

Solution: Ten Degree Channel is a channel which is approximately 10 km wide which separates Little Andaman and Car Nicobar Islands in Bay of Bengal.



Little Andaman and Car Nicobar Islands together form the Union Territory of India as Andaman and Nicobar islands. The Channel runs along East West orientation and lies on 10 degree line of latitude, North of equator.

99. If a wetland of international importance is brought under the 'Montreux Record', what does it imply?

- A. Changes in ecological character have occurred, are occurring or are likely to occur in the wetland as a result of human interference.
- B. The country in which the wetland is located should enact a law to prohibit any human activity within five kilometres from the edge of the wetland
- C. The survival of the wetland depends on the cultural practices and traditions of certain communities living in its vicinity and therefore the cultural diversity therein should not be destroyed
- D. It is given the status of 'World Heritage Site'

Answer: A

Solution: Montreux Record appears as data that is recorded for wetland sites which serves as part of Ramsar List. This record serves as charitable method which describes particular wetland of international importance that is practiced along with Ramsar List. Presently, 51 sites are listed in Montreux record, among which the Indian sites are Keoladeo National Park Rajasthan, Loktak Lake Manipur etc. This descriptions shows that

among the options listed, option A is correct with the involvement of hums, changes related to ecological character occurs in wetland.

100. What are the significances of a practical approach to sugarcane production known as 'Sustainable Sugarcane Initiative'?

(1). Seed cost is very low in this compared to the conventional method of cultivation.

(2). Drip irrigation can be practiced very effectively in this.

(3). There is no application of chemical/ inorganic fertilizers at all in this. (4).

The scope for intercropping is more in this compared to the conventional method of cultivation.

Select the correct answer using the code given below.

A. 1 and 3 only

B. 1, 2 and 4 only

C. 2, 3 and 4 only

D. 1, 2, 3 and 4

Answer: B

Solution: Sustainable Sugarcane is a method of sugarcane production which makes use of less seeds and water which mainly relates to agriculture system. Such initiatives enhance productivity of water, land and labour further decreases pressure on water resources. The main idea of such initiative is to increase the nursery with single bud chips, transplanting of young seedling after grading, releasing adequate moisture by saving 40% of water usage and further encourages organic methods of nutrient and plant protection. This description shows that SSI involves lowering of seed cost as compared to standard methods of cultivation, practicing of drip irrigation and practicing of intercropping, which describes that statements 1, 2 and 4 are correct, hence option B is correct.