

2017

UPSC

CIVIL SERVICES EXAMINATION
(PRELIMS)

PAPER

1



General Instructions

1. This Test Booklet contains **100** items (questions). Each item comprises four responses (answers). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each item.
2. You have to mark all your responses **ONLY** on the separate OMR Sheet provided.
3. All items carry equal marks.
4. **Penalty for wrong answers:**
 - (i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, **one-third (0.33)** of the marks assigned to that question will be deducted as penalty.
 - (ii) If a candidate gives more than one answer, it will be treated as a **wrong answer** even if one of the given answers happens to be correct and there will be same penalty as above to that question.
 - (iii) If a question is left blank, i.e., no answer is given by the candidate, there will be no penalty for that question.

1. Which one of the following was a very important seaport in the Kakatiya kingdom?
 - (a) Kakinada
 - (b) Motupalli
 - (c) Machilipatnam (Masulipatnam)
 - (d) Nelluru
2. With reference to 'Global Climate Change Alliance', which of the following statements is/are correct?
 1. It is an initiative of the European Union.
 2. It provides technical and financial support to targeted developing countries to integrate climate change into their development policies and budgets.
 3. It is coordinated by World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD).Select the correct answer using the code given below:
 - (a) 1 and 2 only
 - (b) 3 only
 - (c) 2 and 3 only
 - (d) 1, 2 and 3
3. With reference to the religious history of India, consider the following statements:
 1. Sautrantika and Sammitiya were the sects of Jainism.
 2. Sarvastivadin held that the constituents of phenomena were not wholly momentary, but existed forever in a latent form.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
4. Mediterranean Sea is a border of which of the following countries?
 1. Jordan
 2. Iraq
 3. Lebanon
 4. SyriaSelect the correct answer using the code given below:
 - (a) 1, 2 and 3 only
 - (b) 2 and 3 only
 - (c) 3 and 4 only
 - (d) 1, 3 and 4 only
5. With reference to 'National Investment and Infrastructure Fund', which of the following statements is/are correct?
 1. It is an organ of NITI Aayog.
 2. It has a corpus of Rs. 4,00,000 crore at present.

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

6. **The Global Infrastructure Facility is a/an**
(a) ASEAN initiative to upgrade infrastructure in Asia and financed by credit from the Asian Development Bank.
(b) World Bank collaboration that facilitates the preparation and structuring of complex infrastructure Public-Private Partnership (PPPs) to enable mobilization of private sector and institutional investor capital
(c) Collaboration among the major banks of the world working with the OECD and infrastructure projects that have the potential to mobilize private investment.
(d) UNCTAD funded initiative that seeks to finance and facilitate infrastructure development in the world.
7. **For election to the Lok Sabha, a nomination paper can be filed by**
(a) anyone residing in India
(b) a resident of the constituency from which the election is to be contested
(c) any citizen of India whose name appears in the electoral roll of a constituency
(d) any citizen of India
8. **Consider the following statements.:**
1. In India, the Himalayas are spread over five States only.
2. Western Ghats are spread over five States only.
3. Pulicat Lake is spread over two States only.
Which of the statements given above is/are correct?
(a) 1 and 2 only (b) 3 only
(c) 2 and 3 only (d) 1 and 3 only
9. **Biological Oxygen Demand (BOD) is a standard criterion for**
(a) measuring oxygen levels in blood
(b) computing oxygen levels in forest ecosystems
(c) pollution assay in aquatic ecosystems
(d) assessing oxygen levels in high altitude regions
10. **With reference to the role of UN-Habitat in the United Nations Programme working towards a better urban future, which of the statements is/are correct?**

1. UN-Habitat has been mandated by the United Nations General Assembly to promote socially and environmentally sustainable towns and cities to provide adequate shelter for all.
2. Its partners are either governments or local urban authorities only.
3. UN-Habitat contributes to the overall objective of the United Nations system to reduce poverty and to promote access to safe drinking water and basic sanitation.

Select the correct answer using the code given below:

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

11. **With reference to 'National Skills Qualification Framework (NSQF)', which of the statements given below is/are correct?**

1. Under NSQF, a learner can acquire the certification for competency only through formal learning.
2. An outcome expected from the implementation of NSQF is the mobility between vocational and general education.

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.

12. **In the context of Indian history, the principle of 'Dyarchy (diarchy)' refers to**

- (a) division of the central legislature into two houses
(b) Introduction of double government i.e., Central and state governments
(c) having two sets of rulers; one in London and another in Delhi
(d) division of the subjects delegated to the provinces into two categories

13. **Consider the following in respect of 'National Career Services':**

1. National Career Service is an initiative of the Department of Personnel and Training, Government of India.
2. National Career Service has been launched in a Mission Mode to improve the employment opportunities to uneducated youth of the country.

Which of the above statements is/are correct?

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

14. Which of the following statements best describes the term 'Scheme for Sustainable Structuring of Stressed Assets (S4A)', recently seen in the news?

- It is a procedure for considering ecological costs of developmental schemes formulated by the Government.
- It is a scheme of RBI for reworking the financial structure of big corporate entities facing genuine difficulties.
- It is a disinvestment plan of the Government regarding Central Public Sector Undertakings.
- It is an important provision in 'The Insolvency and Bankruptcy Code' recently implemented by the Government.

15. Consider the following statements:

- Climate and Clean Air Coalition (CCAC) to Reduce Short Lived Climate Pollutants is a unique initiative of G20 group of countries.
- The CCAC focuses on methane, black carbon and hydrofluorocarbons.

Which of the statements given above is/are correct?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

16. With reference to 'Indian Ocean Dipole (IOD)' sometimes mentioned in the news while forecasting Indian monsoon, which of the following statements is/are correct?

- IOD phenomenon is characterised by a difference in sea surface temperature between tropical Western Indian Ocean and tropical Eastern Pacific Ocean.
- An IOD phenomenon can influence an El Nino's impact on the monsoon.

Select the correct answer using the code given below:

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

17. If you want to see gharials in their natural habitat, which one of the following is the best place to visit?

- Bhitarkanika Mangroves
- Chambal River
- Pulicat Lake
- Deepor Beel

18. Consider the following in respect of Indian Ocean Naval Symposium (IONS):

- Inaugural IONS was held in India in 2015 under the chairmanship of the Indian Navy.

2. IONS is a voluntary initiative that seeks to increase maritime co-operation among navies of the littoral states of the Indian Ocean Region.

Which of the above statements is/are correct?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

19. The painting of Bodhisattva Padmapani is one of the most famous and oft-illustrated paintings at

- Ajanta
- Badami
- Bagh
- Ellora

20. Consider the following pairs:

	Traditions	Communities
1.	Chaliha Sahib Festival	Sindhis
2.	Nanda Raj Jaat Yatra	Gonds
3.	Wari-Warkari	Santhals

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

- 1 only
- 2 and 3 only
- 1 and 3 only
- None of the above

21. Which of the following statements can help in water conservation in agriculture?

- Reduced or zero tillage of the land.
- Applying gypsum before irrigating the field.
- Allowing crop residue to remain in the field.

Select the correct answer using the code given below:

- 1 and 2 only
- 3 only
- 1 and 3 only
- 1, 2 and 3

22. Consider the following statements.

The nation-wide 'Soil Health Card Scheme' aims at

- expanding the cultivable area under irrigation.
- enabling the banks to assess the quantum of loans to be granted to farmers on the basis of soil quality.
- checking the overuse of fertilizers in farmlands.

Which of the above statements is/are correct?

- 1 and 2 only
- 3 only
- 2 and 3 only
- 1, 2 and 3

23. Consider the following pairs:

	Commonly used/consumed materials	Unwanted or controversial chemicals likely to be found in them
1.	Lipstick	Lead

2.	Soft drinks	Brominated vegetable oils
3.	Chinese fast food	Monosodium glutamate

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

24. **Organic Light Emitting Diodes (OLEDs) are used to create digital display in many devices. What are the advantages of OLED displays over Liquid Crystal displays?**

1. OLED displays can be fabricated on flexible plastic substrates.
2. Roll-up displays embedded in clothing can be made using OLEDs.
3. Transparent displays are possible using OLEDs.

Select the correct answer using the code given below:

- (a) 1 and 3 only
(b) 2 only
(c) 1, 2 and 3
(d) None of the above statements is correct

25. **Which of the following is/are famous for Sun temples?**

1. Arasavalli
2. Amarakantak
3. Omkareshwar

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

26. **Consider the following statements.**

1. In the election for Lok Sabha or State Assembly, the winning candidate must get at least 50 percent of the votes polled, to be declared elected.
2. According to the provisions laid down in the Constitution of India, in Lok Sabha, the Speaker's post goes to the majority party and the Deputy Speaker's to the Opposition.

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

27. **Which of the following has/have occurred in India after its liberalisation of economic policies in 1991?**

1. Share of agriculture in GDP increased enormously.
2. Share of India's exports in world trade increased.
3. FDI inflows increased.

4. India's foreign exchange reserves increased enormously.

Select the correct answer using the codes given below:

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

28. **What is the application of Somatic Cell Nuclear Transfer Technology?**

- (a) Production of biolarvicides
(b) Manufacture of biodegradable plastics
(c) Reproductive cloning of animals
(d) Production of organisms free of diseases

29. **Consider the following statements.**

1. National Payment Corporation of India (NPCI) helps in promoting the financial inclusion in the country.
2. NPCI has launched RuPay, a card payment scheme.

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

30. **The term 'M-STripES' is sometimes seen in the news in the context of**

- (a) Captive breeding of Wild Fauna
(b) Maintenance of Tiger Reserves
(c) Indigenous Satellite Navigation System
(d) Security of National Highways

31. **What is/are the most likely advantages of implementing 'Goods and Services Tax (GST)?'**

1. It will replace multiple taxes collected by multiple authorities and will thus create a single market in India.
2. It will drastically reduce the 'Current Account Deficit' of India and will enable it to increase its foreign exchange reserves.
3. It will enormously increase the growth and size of economy of India and will enable it to overtake China in the near future.

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

32. **'Broad-based Trade and Investment Agreement (BTIA)' is sometimes seen in the news in the context of negotiations held between India and**

- (a) European Union
(b) Gulf Cooperation Council
(c) Organization for Economic Cooperation and Development
(d) Shanghai Cooperation Organisation

33. Consider the following statements.
1. India has ratified the Trade Facilitation Agreement (TFA) of WTO.
 2. TFA is a part of WTO's Bali Ministerial Package of 2013.
 3. TFA came into force in January 2016.
- Which of the statements given above is/are correct?
- (a) 1 and 2 only (b) 1 and 3 only
(c) 2 and 3 only (d) 1, 2 and 3
34. What is the importance of developing Chabahar Port by India?
- (a) India's trade with African countries will enormously increase
 - (b) India's relations with oil-producing Arab countries will be strengthened
 - (c) India will not depend on Pakistan for access to Afghanistan and Central Asia
 - (d) Pakistan will facilitate and protect the installation of a gas pipeline between Iraq and India
35. In India, it is legally mandatory for which of the following to report on cyber security incidents?
1. Service providers
 2. Data centres
 3. Body corporate
- Select the correct answer using the code given below:
- (a) 1 only (b) 1 and 2 only
(c) 3 only (d) 1, 2 and 3
36. Right to vote and to be elected in India is a
- (a) Fundamental Right
 - (b) Natural Right
 - (c) Constitutional Right
 - (d) Legal Right
37. What is the purpose of 'evolved Laser Interferometer Space Antenna (eLISA)' project?
- (a) To detect neutrinos
 - (b) To detect gravitational waves
 - (c) To detect the effectiveness of missile defence system
 - (d) To study the effect of solar flares on our communication systems
38. What is the purpose of 'Vidyanjali Yojana'?
1. To enable the famous foreign educational institutions to open their campuses in India.
 2. To increase the quality of education provided in government schools by taking help from the private sector and the community.
 3. To encourage voluntary monetary contributions from private individuals and organizations so as to improve the infrastructure facilities for primary and secondary schools.
- Select the correct answer using the code given below:
- (a) 2 only (b) 3 only
(c) 1 and 2 only (d) 2 and 3 only
39. What is the aim of the programme 'Unnat Bharat Abhiyan'?
- (a) Achieving 100% literacy by promoting collaboration between voluntary organisations and government's education system and local communities.
 - (b) Connecting institutions of higher education with local communities to address development challenges through appropriate technologies.
 - (c) Strengthening India's scientific research institutions in order to make India a scientific and technological power.
 - (d) Developing human capital by allocating special funds for health care and education of rural and urban poor, and organising skill development programmes and vocational training for them.
40. Consider the following statements.
1. The Election Commission of India is a five-member body.
 2. Union Ministry of Home Affairs decides the election schedule for the conduct of both general elections and by-elections.
 3. Election Commission resolves the disputes relating to splits/mergers of recognised political parties.
- Which of the statements given above is/are correct?
- (a) 1 and 2 only (b) 2 only
(c) 2 and 3 only (d) 3 only
41. In India, if a species of tortoise is declared protected under Schedule I of the Wildlife (Protection) Act, 1972, what does it imply?
- (a) It enjoys the same level of protection as the tiger.
 - (b) It no longer exists in the wild, a few individuals are under captive protection; and now it is impossible to prevent its extinction.
 - (c) It is endemic to a particular region of India.
 - (d) Both b and c stated above are correct in this context.

42. **In India, Judicial Review implies**
- the power of the Judiciary to pronounce upon the constitutionality of laws and executive orders.
 - the power of the Judiciary to question the wisdom of the laws enacted by the Legislatures.
 - the power of the Judiciary to review all the legislative enactments before they are assented to by the President.
 - the power of the Judiciary to review its own judgements given earlier in similar or different cases.
43. **With reference to Indian freedom struggle, consider the following events:**
- Mutiny in Royal Indian Navy
 - Quit Indian Movement launched
 - Second Round Table Conference
- What is the correct chronological sequence of the above events?
- 1-2-3
 - 2-1-3
 - 3-2-1
 - 3-1-2
44. **Consider the following statements.**
- Tax revenue as a percent of GDP of India has steadily increased in the last decade.
 - Fiscal deficit as a percent of GDP of India has steadily increased in the last decade.
- Which of the statements given above is/are correct?
- 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
45. **Recently there was a proposal to translocate some of the lions from their natural habitat in Gujarat to which one of the following sites?**
- Corbett National Park
 - Kuno Palpur Wildlife Sanctuary
 - Mudumalai Wildlife Sanctuary
 - Sariska National Park
46. **Which of the following are not necessarily the consequences of the proclamation of the President's rule in a State?**
- Dissolution of the State Legislative Assembly
 - Removal of the Council of Ministers in the State
 - Dissolution of the local bodies
- Select the correct answer using the code given below:
- 1 and 2 only
 - 1 and 3 only
 - 2 and 3 only
 - 1, 2 and 3
47. **Which of the following are envisaged by the Right against Exploitation in the Constitution of India?**
- Constitution of India?**
- Prohibition of traffic in human beings and forced labour
 - Abolition of untouchability
 - Protection of the interests of minorities
 - Prohibition of employment of children in factories and mines
- Select the correct answer using the code given below:
- 1, 2 and 4 only
 - 2, 3 and 4 only
 - 1 and 4 only
 - 1, 2, 3 and 4
48. **Which of the following is geographically closest to Great Nicobar?**
- Sumatra
 - Borneo
 - Java
 - Sri Lanka
49. **Out of the following statements, choose the one that brings out the principle underlying the Cabinet form of Government:**
- An arrangement for minimizing the criticism against the Government whose responsibilities are complex and hard to carry out the satisfaction of all.
 - A mechanism for speeding up the activities of the Government whose responsibilities are increasing day by day.
 - A mechanism of parliamentary democracy for ensuring collective responsibility of the Government to the people.
 - A device for strengthening the hands of the head of the Government whose hold over the people is in a state of decline.
50. **Which one of the following is not a feature to Indian federalism?**
- There is an independent judiciary in India.
 - Powers have been clearly divided between the Centre and the States.
 - The federating units have been given unequal representation in the Rajya Sabha.
 - It is the result of an agreement among the federating units.
51. **The object of the Butler Committee of 1927 was to**
- define the jurisdiction of the Central and Provincial Governments.
 - define the powers of the Secretary of state for India.
 - impose censorship on national press.
 - improve the relationship between the Government of India and the Indian States.

52. The term 'Domestic Content Requirement' is sometimes seen in the news with reference to

- Developing solar power production in our country
- Granting licences to foreign T.V. channels in our country
- Exporting our food products to other countries
- Permitting foreign educational institutions to set up their campuses in our country

53. Consider the following statements.

- The Nuclear Security Summits are periodically held under the aegis of the United Nations.
- The International Panel on Fissile Materials is an organ of International Atomic Energy Agency.

Which of the statements given above is/are correct?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

54. Who among the following can join the National Pension System (NPS)?

- Resident Indian citizens only
- Persons of age from 21 to 55 only
- All State Government employees joining the services after the date of notification by the respective State Governments
- All Central Government employees including those of Armed Forces joining the services on or after 1st April 2004

55. With reference to river Teesta, consider the following statements.

- The source of river Teesta is the same as that of Brahmaputra but it flows through Sikkim.
- River Rangeet originates in Sikkim and it is a tributary of river Teesta.
- River Teesta flows into Bay of Bengal on the border of India and Bangladesh.

Which of the statements given above is/are correct?

- 1 and 3 only
- 2 only
- 2 and 3 only
- 1, 2 and 3

56. Consider the following statements.

- In tropical regions, Zika virus disease is transmitted by the same mosquito that transmits dengue.
- Sexual transmission of Zika virus disease is possible.

Which of the statements given above is/are correct?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

57. Consider the following statements.

- The Standard Mark of Bureau of Indian Standards (BIS) is mandatory for automotive tyres and tubes.
- AGMARK is a quality Certification Mark issued by the Food and Agriculture Organisation (FAO).

Which of the statements given above is/are correct?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

58. What is/are the advantage/advantages of implementing the 'National Agriculture Market' scheme?

- It is a pan-India electronic trading portal for agricultural commodities.
- It provides the farmers access to nationwide market, with prices commensurate with the quality of their produce.

Select the correct answer using the code given below:

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

59. With reference to the 'National Intellectual Property Rights Policy', consider the following statements.

- It reiterates India's commitment to the Doha Development Agenda and the TRIPS Agreement.
- Department of Industrial Policy and Promotion is the nodal agency for regulating intellectual property rights in India.

Which of the above statements is/are correct?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

60. According to the Wildlife (Protection) Act, 1972, which of the following animals cannot be hunted by any person except under some provisions provided by law?

- Gharial
- Indian wild ass
- Wild buffalo

Select the correct answer using the code given below:

- 1 only
- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

61. Which of the following statements is/are true of the Fundamental Duties of an Indian citizen?
1. A legislative process has been provided to enforce these duties.
 2. They are correlative to legal duties.
- 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
62. Consider the following pairs:
1. Radhakanta Deb – First President of the British Indian Association
 2. Gazulu Lakshminarasu Chetty – Founder of the Madras Mahajana Sabha
 3. Surendranath Banerjee – Founder of the Indian Association
- Which of the above pairs is/are correctly matched?
- (a) 1 only (b) 1 and 3 only
(c) 2 and 3 only (d) 1, 2 and 3
63. Which one of the following objectives is not embodied in the Preamble to the Constitution of India?
- (a) Liberty of thought
(b) Economic liberty
(c) Liberty of expression
(d) Liberty of belief
64. With reference to the 'Quality Council of India (QCI)', consider the following statements:
1. QCI was set up jointly by the Government of India and the Indian Industry.
 2. Chairman of QCI is appointed by the Prime Minister on the recommendations of the industry to the Government.
- Which of the above statements is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
65. What is the purpose of setting up of Small Finance Banks (SFBs) in India?
1. To supply credit to small business units.
 2. To supply credit to small and marginal farmers.
 3. To encourage young entrepreneurs to set up business particularly in rural areas.
- Select the correct answer using the code given below:
- (a) 1 and 2 only (b) 2 and 3 only
(c) 1 and 3 only (d) 1, 2 and 3
66. With reference to 'Asia Pacific Ministerial Conference on Housing and Urban Development (APMCHUD)', consider the following statements:
1. The first APMCHUD was held in India in 2006 on the theme 'Emerging Urban Forms – Policy Responses and Governance Structure'.
 2. India hosts all the Annual Ministerial Conferences in partnership with ADB, APEC and ASEAN.
- 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
67. Democracy's superior virtue lies in the fact that it calls into activity
- (a) the intelligence and character of ordinary men and women.
(b) the methods for strengthening executive leadership.
(c) a superior individual with dynamism and vision.
(d) a band on dedicated party workers.
68. Which of the following is a most likely consequence of implementing the 'Unified Payments Interface (UPI)?
- (a) Mobile wallets will not be necessary for online payments.
(b) Digital currency will totally replace the physical currency in about two decades.
(c) FDI inflows will drastically increase.
(d) Direct transfer of subsidies to poor people will become very effective.
69. The terms 'Event Horizon', 'Singularity', 'String Theory' and 'Standard Model' are sometimes seen in the news in the context of
- (a) observation and understanding of the Universe
(b) study of the solar and the lunar eclipses
(c) placing satellites in the orbit of the Earth
(d) origin and evolution of living organisms on the earth
70. With reference to agriculture in India, how can the technique of 'genome sequencing', often seen in the news, be used in the immediate future?
1. Genome sequencing can be used to identify genetic markers for disease resistance and drought tolerance in various crop plants.

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2. This technique helps in reducing the time required to develop new varieties of crop plants.
3. It can be used to decipher the host-pathogen relationships in crops.
- 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
71. **The main advantage of the parliamentary form of governments is that**
- (a) the executive and legislature work independently.
(b) it provides continuity of policy and is more efficient.
(c) the executive remains responsible to the legislature.
(d) the head of the government cannot be changed without election.
72. **In the context of India, which one of the following is the correct relationship between Rights and Duties?**
- (a) Rights are correlative with Duties.
(b) Rights are personal and hence independent of society and Duties.
(c) Rights, not Duties, are important for the advancement of the personality of the citizen.
(d) Duties, not Rights, are important for the stability of the State.
73. **The mind of the makers of the Constitution of India is reflected in which of the following?**
- (a) The Preamble
(b) The Fundamental Rights
(c) The Directive Principles of State Policy
(d) The Fundamental Duties
74. **If you travel by road from Kohima to Kottayam, what is the minimum number of States within India through which you can travel, including the origin and the destination?**
- (a) 6 (b) 7
(c) 8 (d) 9
75. **The Parliament of India exercises control over the functions of the Council of Ministers through**
1. Adjournment motion
 2. Questions hour
 3. Supplementary questions
- 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
76. **With reference to the Parliament of India, consider the following statements:**
1. A private member's bill is a bill presented by a Member of Parliament who is not elected but only nominated by the President of India.
 2. Recently, a private member's bill has been passed in the Parliament of India for the first time in its history.
- 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
77. **With reference to the difference between the culture of Rigvedic Aryans and Indus Valley people, which of the following statements is/are correct?**
1. Rigvedic Aryans used the coat of mail and helmet in warfare whereas the people of Indus Valley Civilisation did not leave any evidence of using them.
 2. Rigvedic Aryans knew gold, silver and copper whereas Indus Valley people knew only copper and iron.
 3. Rigvedic Aryans had domesticated the horse whereas there is no evidence of Indus Valley people having been aware of this animal.
- 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
78. **Recognition of Prior Learning Scheme' is sometimes mentioned in the news with reference to**
- (a) certifying the skills acquire by construction workers through traditional channels.
 - (b) enrolling the persons in Universities for distance learning programmes.
 - (c) reserving some skilled jobs to rural and urban poor in some public sector undertakings.
 - (d) certifying the skills acquired by trainees under the National Skill Development Programme.
79. **From the ecological point of view, which one of the following assumes importance in being a good link between the Eastern Ghats and the Western Ghats?**
- (a) Sathyamangalam Tiger Reserve
 - (b) Nallamala Forest
 - (c) Nagarhole National Park
 - (d) Seshachalam Biosphere Reserve

80. One of the implications of equality in society is the absence of
 (a) Privileges (b) Restraints
 (c) Competition (d) Ideology
81. Consider the following statements in respect of Trade Related Analysis of Fauna and Flora in Commerce (TRAFFIC):
 1. TRAFFIC is a bureau under United Nations Environment Programme (UNEP).
 2. The mission of TRAFFIC is to ensure that trade in wild plants and animals is not a threat to the conservation of nature.
 Which of the above statements is/are correct?
 (a) 1 only (b) 2 only
 (c) Both 1 and 2 (d) Neither 1 nor 2
82. Which principle among the following was added to the Directive Principles of State Policy by the 42nd Amendment to the Constitution?
 (a) Equal pay for equal work for both men and women
 (b) Participation of workers in the management of industries
 (c) Right to work, education and public assistance
 (d) Securing living wage and human conditions of work to workers
83. Which one of the following statements is correct?
 (a) Rights are claims of the State against the citizens.
 (b) Rights are privileges which are incorporated in the Constitution of a State.
 (c) Rights are claims of the citizens against the State.
 (d) Rights are privileges of a few citizens against the many.
84. Which of the following gives 'Global Gender Gap Index' ranking to the countries of the world?
 (a) World Economic Forum
 (b) UN Human Rights Council
 (c) UN Women
 (d) World Health Organisation
85. Which of the following statements is/are correct regarding Smart India Hackathon 2017?
 1. It is a centrally sponsored scheme for developing every city of our country into Smart Cities in a decade.
 2. It is an initiative to identify new digital technology innovations for solving the many problems faced by our country.
 3. It is a programme aimed at making all the financial transactions in our country completely digital in a decade.
 Select the correct answer using the code given below:
 (a) 1 and 3 only (b) 2 only
 (c) 3 only (d) 2 and 3 only
86. Which of the following statements is/are correct regarding the 'Monetary Policy Committee (MPC)?
 1. It decides the RBI's benchmark interest rates.
 2. It is a 12-member body including the Governor of RBI and is reconstituted every year.
 3. It functions under the chairmanship of the Union Finance Minister.
 Select the correct answer using the code given below:
 (a) 1 only (b) 1 and 2 only
 (c) 3 only (d) 2 and 3 only
87. With reference to Manipuri Sankirtana, consider the following statements:
 1. It is a song and dance performance.
 2. Cymbals are the only musical instruments used in the performance.
 3. It is performed to narrate the life and deeds of Lord Krishna.
 Which of the statements given above is/are correct?
 (a) 1, 2 and 3 (b) 1 and 3 only
 (c) 2 and 3 only (d) 1 only
88. Who among the following was/were associated with the introduction of Ryotwari Settlement in India during the British Rule?
 1. Lord Cornwallis
 2. Alexander Read
 3. Thomas Munro
 Select the correct answer using the code given below:
 (a) 1 only (b) 1 and 3 only
 (c) 2 and 3 only (d) 1, 2 and 3
89. In the context of solving pollution problems, what is/are the advantage/advantages of bioremediation technique?
 1. It is a technique for cleaning up pollution by enhancing the same biodegradation process that occurs in nature.
 2. Any contaminant with heavy metals such as cadmium and lead can be readily and completely treated by bioremediation using microorganisms.

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3. Genetic engineering can be used to create microorganisms specifically designed for bioremediation.
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
90. **The Trade Disputes Act of 1929 provided for**
(a) the participation of workers in the management of industries.
(b) arbitrary powers to the management to quell industrial disputes.
(c) an intervention by the British Court in the event of a trade dispute.
(d) a system of tribunals and a ban on strikes.
91. **Local self-government can be best explained as an exercise in**
(a) Federalism
(b) Democratic decentralisation
(c) Administrative delegation
(d) Direct democracy
92. **Consider the following statements: With reference to the Constitution of India, the Directive Principles of State Policy constitute limitations upon**
1. Legislative function.
2. Executive function.
Which of the above statements is/are correct?
(a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
93. **The term 'Digital Single Market Strategy' seen in the news refers to**
(a) ASEAN (b) BRICS
(c) EU (d) G20
94. **At one of the place in India, if you stand on the seashore and watch the sea, 'you will find that the sea water recedes from the shore line a few kilometres and comes back to the shore, twice a day, and you can actually walk on the sea floor when the water recedes. This unique phenomenon is seen at**
(a) Bhavnagar
(b) Bheemunipatnam
(c) Chandipur
(d) Nagapattinam
95. **With reference to the 'Prohibition of Benami Property Transaction Act, 1988 (PBPT Act)', consider the following statements:**
1. A property transaction is not treated as a benami transaction if the owner of the property is not aware of the transaction.
2. Properties held benami are liable for confiscation by the Government.
3. The Act provides for three authorities for investigations but does not provide for any appellate mechanism.
Which of the statements given above is/are correct?
(a) 1 only (b) 2 only
(c) 1 and 3 only (d) 2 and 3 only
96. **Due to some reasons, if there is a huge fall in the population of species of butterflies, what could be its likely consequence/consequences?**
1. Pollination of some plants could be adversely affected.
2. There could be a drastic increase in the fungal infections of some cultivated plants.
3. It could lead to a fall in the population of some species of wasps, spiders and birds.
Select the correct using the code given below:
(a) 1 only (b) 2 and 3 only
(c) 1 and 3 only (d) 1, 2 and 3
97. **It is possible to produce algae based biofuels, but what is/are the likely limitation(s) of developing countries in promoting this industry?**
1. Production of algae based biofuels is possible in seas only and not on continents.
2. Setting up and engineering the algae based biofuels production requires high level of expertise/ technology until the construction is complete.
3. Economically viable production necessitates the setting up of large scale facilities which may raise ecological and social concerns.
Select the correct answer using the code given below:
(a) 1 and 2 only (b) 2 and 3 only
(c) 3 only (d) 1, 2 and 3
98. **Which of the following are the objectives of 'National Nutrition Mission'?**
1. To create awareness relating to malnutrition among pregnant women and lactating mothers.
2. To reduce the incidence of anaemia among young children, adolescent girls and women.
3. To promote the consumption of millets, coarse cereals and unpolished rice.
4. To promote the consumption of poultry eggs.

Select the correct answer using the code given below:

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

99. Consider the following statements:

1. The Factories Act, 1881 was passed with a view to fix the wages of industrial workers and to allow the workers to form trade unions.
2. N. M. Lokhande was a pioneer in organizing the labour movement in British India.

Which of the above statements is/are correct?

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

100. In the context of mitigating the impending global warming due to anthropogenic emissions of carbon dioxide, which of the following can be potential sites for carbon sequestration?

1. Abandoned and uneconomic coal seams
2. Depleted oil and gas reservoirs
3. Subterranean deep saline formations

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

OSWAAL

360

OMR SHEET

Darken the circle for each question.

Q.No.	Response
1.	(a) (b) (c) (d)
2.	(a) (b) (c) (d)
3.	(a) (b) (c) (d)
4.	(a) (b) (c) (d)
5.	(a) (b) (c) (d)
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23.	(a) (b) (c) (d)
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Q.No.	Response
26.	(a) (b) (c) (d)
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29.	(a) (b) (c) (d)
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46.	(a) (b) (c) (d)
47.	(a) (b) (c) (d)
48.	(a) (b) (c) (d)
49.	(a) (b) (c) (d)
50.	(a) (b) (c) (d)

Q.No.	Response
51.	(a) (b) (c) (d)
52.	(a) (b) (c) (d)
53.	(a) (b) (c) (d)
54.	(a) (b) (c) (d)
55.	(a) (b) (c) (d)
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57.	(a) (b) (c) (d)
58.	(a) (b) (c) (d)
59.	(a) (b) (c) (d)
60.	(a) (b) (c) (d)
61.	(a) (b) (c) (d)
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74.	(a) (b) (c) (d)
75.	(a) (b) (c) (d)

Q.No.	Response
76.	(a) (b) (c) (d)
77.	(a) (b) (c) (d)
78.	(a) (b) (c) (d)
79.	(a) (b) (c) (d)
80.	(a) (b) (c) (d)
81.	(a) (b) (c) (d)
82.	(a) (b) (c) (d)
83.	(a) (b) (c) (d)
84.	(a) (b) (c) (d)
85.	(a) (b) (c) (d)
86.	(a) (b) (c) (d)
87.	(a) (b) (c) (d)
88.	(a) (b) (c) (d)
89.	(a) (b) (c) (d)
90.	(a) (b) (c) (d)
91.	(a) (b) (c) (d)
92.	(a) (b) (c) (d)
93.	(a) (b) (c) (d)
94.	(a) (b) (c) (d)
95.	(a) (b) (c) (d)
96.	(a) (b) (c) (d)
97.	(a) (b) (c) (d)
98.	(a) (b) (c) (d)
99.	(a) (b) (c) (d)
100.	(a) (b) (c) (d)

ANSWERS WITH EXPLANATION

1. **Option (b) is correct.**

Explanation: Motupalli was sea port of the Kakatiya kingdom. Motupalli was visited by the Venitian traveller, Marco Polo.

The Kakatiya dynasty was a South Indian dynasty that ruled the Deccan region, now Telangana and Andhra Pradesh, and parts of eastern Karnataka and southern Odisha between the 12th and 14th centuries.

Their capital was Orugallu, present day known as Warangal.

Marco Polo, who visited India around 1289–1293, made note of Rudrama Devi's rule.

2. **Option (a) is correct.**

Explanation: The Global Climate Change Alliance (GCCA) was established by the European Union (EU) in 2007.

It aims at strengthening cooperation with developing countries, in particular the least developed countries and small island developing States.

It focuses on climate policy and brings attention to the issue of international climate finance. It acts as a source of technical and financial support for the world's most climate-vulnerable countries, whose populations need climate finance the most.

It is coordinated by the Centre for International Forestry Research (CIFOR), the Food and Agriculture Organisation (FAO), the United Nations Capital Development Fund (UNCDF), the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), UN Habitat and the World Bank.

Through the Greenhouse Gas Protocol (GHGP) World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD) work for reducing carbon emissions.

3. **Option (b) is correct.**

Explanation: Sautrantika and Sammitya were the the sects of Buddhism. A sutra follower is referred to as a "Sautrantika."

Another school of Buddhism that emerged within the Sarvastivada sect is known as Sautrantika.

Sarvastivadins believe that the constituents of phenomena (dharma) were not wholly momentary, but existed forever in a latent form.

4. **Option (c) is correct.**

Explanation:



This map is not to scale and is for reference only.

Figure: Countries sharing border with Mediterranean sea

5. **Option (d) is correct.**

Explanation: The National Investment and Infrastructure Fund (NIIF) is a fund created by the Government of India to enhance financing of infrastructure in the country. It was announced in the Union Budget 2015-16.

The Governing Council chaired by the Finance Minister is an advisory body of the NIIF. It has no relation with the NITI Aayog. Hence statement 1 is incorrect. The proposed corpus of the NIIF is Rs. 40,000 Crores. Hence statement 2 is incorrect.

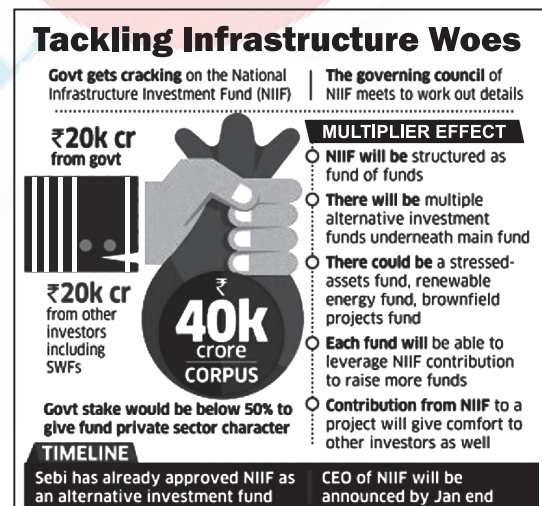


Figure: Funds of NIIF

6. **Option (b) is correct.**

Explanation: The Global Infrastructure Facility (GIF) is a global, open platform that facilitates the preparation and structuring of complex infrastructure public-private partnerships (PPPs) to enable mobilization of private sector and institutional investor capital. The GIF platform coordinates and integrates

the efforts of Multilateral Development Banks (MDBs), private sector investors and financiers, and governments interested in infrastructure investment in Emerging Markets and Developing Economies (EMDEs). This approach enables collaboration and collective action on complex projects that no single institution could achieve alone. The GIF operates according to the following core principles:

- Providing public goods
- Mobilising the private sector
- Achieving value for money
- Promoting sustainability and inclusiveness
- Collaborating for best results
- Augmenting partners' capacity

The Governing Council of GIF is co-chaired by the World Bank Group and Canada.

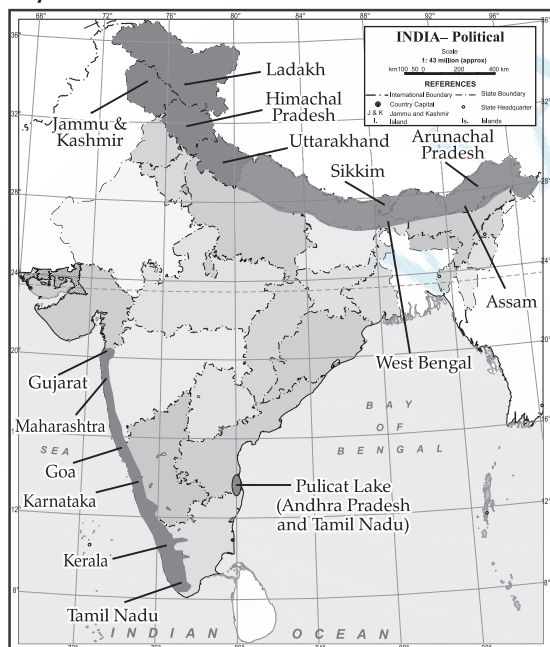
7. **Option (c) is correct.**

Explanation: Qualifications for election to Lok Sabha:

- must be registered as an elector for a parliamentary constituency
- must be a citizen of India
- not less than 25 years of age

8. **Option (b) is correct.**

Explanation:



This map is not to scale and is for reference only.

Figure: States representing Himalayas, Western Ghats and Pulicat Lake

The Himalayas in India are spread over Jammu & Kashmir, Himachal Pradesh, Uttarakhand,

Sikkim, Assam, West Bengal, and Arunachal Pradesh spread across 13 states and UTs. The extension of Shiwaliks are also present in the Punjab and Haryana states of India. Hence, statement 1 is incorrect. The Western Ghats in India are spread over Gujarat, Maharashtra, Goa, Karnataka, Kerala, and Tamil Nadu. Hence, statement 2 is incorrect. Pulicat Lake lies on the border of Andhra Pradesh and Tamil Nadu. Hence, statement 3 is correct.

9. **Option (c) is correct.**

Explanation: The amount of dissolved oxygen needed or demanded by aerobic micro organisms to break down organic material present in a given water sample is known as the Biological Oxygen Demand (BOD). If the water is highly polluted, then it will have high levels of Biological Oxygen Demand (BOD).

10. **Option (b) is correct.**

Explanation: The UN-Habitat is the programme of the United Nations. It is working towards a better urban future. This programme is promoting socially and environmentally sustainable human settlements development and the achievement of adequate shelter for all. Hence, statement 1 is correct.

It is partnered with the governments, local authorities, NGOs, Trade Unions, professionals, Indigenous people, and Financial Institutions, etc. Hence, statement 2 is incorrect. The UN-Habitat contributed to the overall objective of a sustainable urbanization to reduce poverty and to promote access to safe drinking water and basic sanitation.

11. **Option (b) is correct.**

Explanation: The National Skills Qualifications Framework (NSQF) is a nationally integrated education and competency-based framework. It organizes all qualifications according to a series of levels of knowledge, skills and aptitude. Hence, statement 1 is incorrect. These levels of knowledge, skills and aptitude are defined in terms of learning outcomes which the learner must possess. These levels can be acquired through formal, non-formal or informal learning. It provides multiple pathways, horizontal as well as vertical, both within vocational education and general education and technical education. It links one level of learning to another higher level. Hence, statement 2 is correct.

12. **Option (d) is correct.**

Explanation: Provisions of the government of India act 1919:

1. It relaxed the central control over the provinces. It demarcated and separated the central and provincial subjects.

The central legislature was allowed to make laws on the subjects of the central list while provincial legislatures were authorised to make laws the subjects of the provincial list, but the structure of government continued to be centralised and unitary.

2. It introduced the system of dyarchy (dual scheme of governance), and further divided the provincial subjects into two parts – transferred and reserved. The transferred subjects were to be administered by the Governor with the aid of the Ministers responsible to the legislative council. The reserved subjects, on the other hand, were to be administered by the Governor and his executive council without being responsible to the legislative council.
3. It introduced bicameralism and direct elections in the country.
4. The communal representation was extended by providing separate electorates for Sikhs, Indian Christians, Anglo-Indians and Europeans.
5. It provided for the establishment of a public service commission.
6. It separated provincial budgets from the Central budget.

13. Option (d) is correct.

Explanation: The National Career Service (NCS) project is an initiative launched by the Ministry of Labour and Employment (India) Government of India as a Mission Mode Project for establishing quick and efficient career-related services. Hence, statement 1 is not correct.

The main stakeholders for the NCS would include:

- Unemployed candidates seeking jobs
- Students seeking career counselling
- Candidates seeking vocational / occupational guidance
- Illiterate, under-privileged sections of society, blue-collar workers seeking placements and guidance
- Person with different abilities (PWDs), ex-servicemen, veterans / senior citizens, etc.
- NCS provides a one-stop solution w.r.t career-related and employment services to the citizens of India. Hence statement 2 is incorrect.

14. Option (b) is correct.

Explanation: The S4A is a scheme of RBI for reworking the financial structure of big corporate entities facing the genuine difficulties.

The debt level for a stressed borrower, and bifurcation of the outstanding debt into sustainable debt and equity/quasi-equity instruments which are expected to provide upside to the lenders when the borrower turns around.

15. Option (b) is correct.

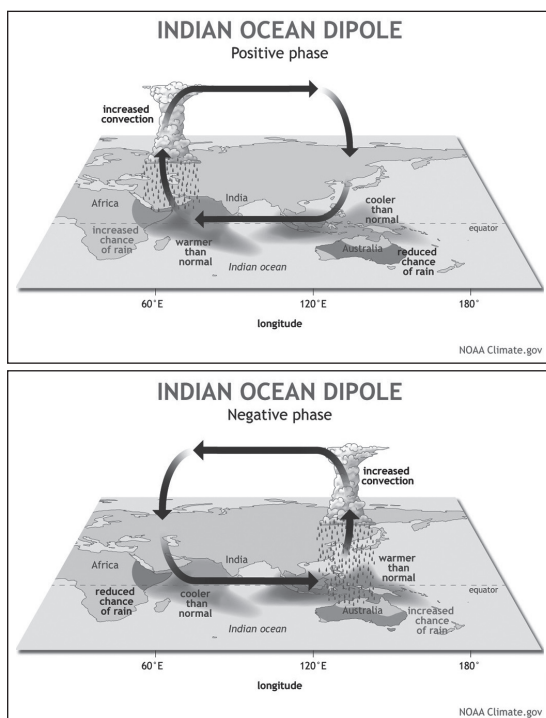
Explanation: The Climate & Clean Air Coalition, was launched in 2019, It is a voluntary partnership of governments, intergovernmental organizations, businesses, scientific institutions and civil society organizations committed to reducing short-lived climate pollutants across sectors, is committed to improving air quality and protecting the climate in the next few decades. Its focus on methane, black carbon, and HFCs. The United Nations Environment Programme (UNEP) along with the governments of Bangladesh, Canada, Ghana, Mexico, Sweden and the United States came together to initiate the first effort to treat these pollutants as a collective challenge. India is a member of the coalition.

16. Option (b) is correct.

Explanation: The Indian Ocean Dipole (IOD) phenomenon is characterized by the difference in sea surface temperature between two areas (or poles, hence a dipole) – a western pole in the Arabian Sea (western Indian Ocean) and an eastern pole in the eastern Indian Ocean south of Indonesia.

This phenomenon develops from April to May, peaking in October in the equatorial region of the Indian Ocean.

In the positive dipole year, winds over the Indian Ocean blow from east to west (from the Bay of Bengal towards the Arabian Sea). This results in the Arabian Sea (western Indian Ocean near African Coast) being much warmer and the eastern Indian Ocean around Indonesia becoming colder and dry while vice-versa in the negative dipole year.



This map is not to scale and is for reference only.

Figure: Movement of Indian Ocean Dipole

Positive IOD results in more cyclones than usual in the Arabian Sea while the negative IOD results in stronger than usual cyclonogenesis (Formation of the Tropical Cyclones) in the Bay of Bengal.

17. **Option (b) is correct.**

Explanation:



India has three species of Crocodilians namely:

Gharial (*Gavialis gangeticus*): IUCN Red List-Critically Endangered

Mugger crocodile (*Crocodylus palustris*): IUCN-Vulnerable.

Saltwater crocodile (*Crocodylus porosus*): IUCN-Least Concern.

All are listed on Appendix I of CITES and Schedule I of the Wild Life (Protection) Act, 1972.

Habitat of Gharials:

Natural Habitat: Fresh waters of the northern part of India.

The Chambal river, Ghagra, Gandak, Girwa Ramganga and the Son river.

Gharials are an indicator of clean river water.

18. **Option (b) is correct.**

Explanation: The Indian Ocean Naval Symposium (IONS) is a forum to increase maritime cooperation among the littoral states of the Indian Ocean Region. It helps to preserve peaceful relations between nations and building an effective maritime security architecture in the Indian Ocean Region.

The inaugural IONS Seminar was held by the Indian Navy in 2008. In 2020 the IONS Chairmanship rotates to France and in 2022 to Thailand.

The IONS includes 24 nations that lie within the Indian Ocean, and 8 observer nations.

19. **Option (a) is correct.**

Explanation: Ajanta Caves: It is a series of rock-cut caves in the Sahyadri range. It is located on the Waghora River near Aurangabad in Maharashtra. Ajanta has a total of 29 caves. Out of which, 25 were used as Viharas or residential caves while 4 were used as Chaitya or prayer halls.

The caves were developed between 200 BC to 650 AD probably. The painting of Bodhisattva Padmapani is situated in these caves.

The figures in these caves were made using fresco painting technique.

The colours were obtained from the local vegetation and minerals.

20. **Option (a) is correct.**

Explanation: Chalia sahib is the festival of the Sindhis. It involves devotees fasting for several days.

The Nanda Devi Jaat Yatra is celebrated every year in the Nanda Devi temples. These temples are spread across Garhwal and Kumaon region of Uttarakhand. Gonds are not the natives of Uttarakhand.

Wari-Warkari is an annual pilgrimage to Pandharpur (the seat of the god Vithoba in Maharashtra), Santhals are not the natives of Maharashtra.

21. **Option (c) is correct.**

Explanation: No-till farming is also known as zero tillage or direct drilling. It is a way of growing crops or pasture from year to year without disturbing the soil through tillage.

This agricultural technique increases the amount of water that infiltrates into the soil. It increases the organic matter retention and cycling of nutrients in the soil.

Using Impermeable and permeable contour barriers at discrete intervals downslope combined with reduced tillage, or preferably zero tillage as in conservation agriculture. Hence, statement 1 is correct. The incorporation of lime without or with gypsum will reduce toxic concentrations of aluminium and/or manganese to non-toxic levels and so encourage deeper rooting enabling the crop to access more soil moisture and so increase productivity and help in water conservation.

22. **Option (b) is correct.**

Explanation: SHC (Soil Health Card) contains the status of a farmer's soil with respect to 12 parameters, namely N,P,K (Macro-nutrients); S (Secondary- nutrient); Zn, Fe, Cu, Mn, Bo (Micro - nutrients); and pH, EC, OC (Physical parameters). This card will also indicate fertilizer recommendations and soil amendment required for the farm.

Benefits of the Soil Health Card Scheme:

- It will monitor the soil of the farmers.
- The authorities will monitor the soil on a regular basis (in every 3 years).
- It will also employ experts to help farmers in carrying out the corrective measures.
- Farmers can study the soil management practices. Accordingly, they can plan the future of their crops and land.

23. **Option (d) is correct.**

Explanation: Most of the products available in the market have impurity in the form of various harmful chemical compounds. For example, Lead is found in lipsticks.

Brominated vegetable oils are found in soft drinks.

Monosodium glutamate is found in the chinese food like noddles.

24. **Option (c) is correct.**

Explanation: All the 3 statements are correct.

Organic Light-Emitting Diode (OLED):

It is a solid-state light device that makes use of flat light emitting technology with the help of two conductors. It keeps a series of organic thin films between the conductors. An OLED

does not require backlighting. It is used as a backlight source in LCD displays, electronic equipment, signalling as well as in general lighting because of its low power consumption and great brightness.

Advantages of OLED over LCD:

- OLED-based screens can be significantly thinner, resulting in the lighter weight.
- OLED has better contrast and allows a higher refresh rate.
- OLED allows new display capabilities like ultra-thin, transparent displays.
- Power consumption is very low.
- OLED-based screens provide a fuller viewing angle and are also much brighter.
- Durability is better.
- OLEDs can work in broader temperatures as well.

25. **Option (a) is correct.**

Explanation: Amarakantak and Omkareshwar are not sun temples. Major sun temples in India are:

Sun has been revered since Vedic age with many hymns written for the celestial body. It is worshipped as Aditya or Surya under Hinduism. There are many rituals in practice for worshipping the deity. Many temples have also been constructed with Sun as the chief deity. Sun temples are even found in Japan, Egypt, China, etc. Some of the Rajput clans namely "Suryavanshi", worship Sun and claim themselves to be the descendants of the deity. Some of the major sun temples in India are:

- **Modhera Sun Temple, Gujarat.** It was built in 11th century.
- **Konark Sun Temple, Odisha.** It was made by Narasimhadeva I, the Eastern Ganga king in 13th century. It is in a shape of "Rath" (Chariot) with mandapa on a raised platform.
- **Brahmanya Dev Temple, Unao (Madhya Pradesh)**
- **Suryanaar Kovil, Kumbakonam (Tamil Nadu)** was built in 11th century in Dravidian style. It has shrines of sun god eight other celestial bodies, together called 'Navagraha'. It has beautiful fivelayered Gopuram.

- **Suryanarayana Swamy Temple, Arasavalli (Andhra Pradesh).** It is said to be made by a Kalinga king in 7th century. The idol is made of granite and holds a lotus.
- **Dakshinaarka Temple, Gaya (Bihar)** is said to be built by King Prataparudra of Warangal in 13th century AD. The deity is made in granite and the idol wears Persian attire like waist girdle, boots and a jacket. It has a Surya Kund (water reservoir) nearby.
- **Navalakha Temple, Ghumli (Gujarat)** was made in 11th century. It is built in Solanki and Maru-Gurjara style. It faces east and is built on a large platform.
- **Surya Pahar Temple, Goalpara (Assam)**
- **Martand Sun Temple, Kashmir**

26. **Option (d) is correct.**

Explanation: The first past the post system is followed in the election of the Lok Sabha and state assemblies, where a candidate who gets more votes than any other candidate is elected. Hence, statement 1 is incorrect. The Speaker and Deputy Speaker of the Lok Sabha are elected from among its members. Hence, statement 2 is incorrect.

27. **Option (b) is correct.**

Explanation: The post LPG era period shows the decline in the agriculture sector's contribution to the Indian economy. Agriculture contribution now declined to 15% to the GDP from 29 % in 1991.

Share of India's exports in world trade increased since 1991.

Before 1991, foreign investment was negligible, but investments have steadily risen since 1991. As of June 2022, India has attracted \$570 billion worth of FDI.

In 1991, India stood at just \$5.8 billion. As of June 2022, the country's forex reserves are at \$601 billion.

28. **Option (c) is correct.**

Explanation: Somatic cell nuclear transfer is a cloning technique. In this technique the nucleus of a somatic cell is transferred to the cytoplasm of an enucleated egg. The cytoplasmic factors affect the nucleus to become a zygote after the somatic cell transfers. Dolly, the sheep was the first animal to be developed by this technique in 1996.

29. **Option (c) is correct.**

Explanation: The National Payments Corporation of India (NPCI) is an umbrella organisation for operating retail payments and settlement systems in the country. It is an initiative of the Reserve Bank of India (RBI) and the Indian Banks' Association (IBA) under the Payment and Settlement Systems Act, 2007. The basic idea was to create a robust Payment & Settlement Infrastructure in India. It has been incorporated as a "Not for Profit" Company under the provisions of Section 8 of Companies Act 2013.

It focus on bringing innovations in the retail payment systems through the use of technology. Its objective is achieving greater efficiency in operations and widening the reach of payment systems.

RuPay

RuPay (launched by the NPCI) is an indigenously that supports the issuance of debit, credit and prepaid cards by banks in India.

30. **Option (b) is correct.**

Explanation: M-STrIPES (Monitoring System for Tigers: Intensive Protection and Ecological Status)

The "M-STrIPES" is a platform where modern technology is used to assist effective patrolling assess ecological status and mitigate human-wildlife conflict in and around tiger reserves.

The MStrIPES program uses Global Positioning System (GPS), General Packet Radio Services (GPRS), and remote sensing to collect information from the field, create a database using modern Information Technology (IT) based tools, analyses the information using GIS and statistical tools to provide inferences that allow tiger reserve managers to better manage their wildlife resources.

31. **Option (a) is correct.**

Explanation: A value-added tax levied on most goods and services sold for domestic consumption is known as the Goods and Services Tax (GST). It is paid by consumers, but remitted to the government by the businesses selling the goods and services. It is one indirect tax for the whole nation. It will make India one unified common market.

There is no information which says GST will drastically reduce the CAD (Current Account Deficit) of India. Neither it will enable India to take over China.

32. **Option (a) is correct.**

Explanation: India had launched talk for having a wide-ranging Free Trade Agreement (FTA) with the European Union in 2007. It is officially called Broad-based Trade and Investment (BTIA).

It was proposed to encompass trade in goods, services and investments.

India and the EU with the signing of the BTIA, expect to promote bilateral trade in goods and services and investment across all sectors of the economy.

33. **Option (a) is correct.**

Explanation: The Trade Facilitation Agreement (TFA) seeks to speed up global trade by reforming customs procedures and cutting red tapism. The TFA is the WTO's first-ever multilateral accord that aims to simplify customs regulations for the cross-border movement of goods. It was outcome of WTO's 9th Bali (Indonesia) ministerial package of 2013. India ratified it in April 2016. The Trade Facilitation Agreement came into force in 2017. The main aim of the agreement was to boost global growth by reducing the cost of the transaction in terms of export and import.

34. **Option (c) is correct.**

Explanation:



This map is not to scale and is for reference only.

Figure: Chabahar Port

Chabahar Port is located in the Sistan province of Iran in the Indian Ocean. It is considered a gateway for trade by India, Iran and Afghanistan with Central Asian countries.

It is easily accessible from India's western coast. It is a counter to Pakistan's Gwadar Port which is being developed by China.

It provides an alternate supply route to everyone, thus reducing the importance of Pakistan.

It is located on the Gulf of Oman and is only 72 km away from the Gwadar port on Pakistan.

It gives India direct access to Afghanistan and other Central Asian Republics.

35. **Option (d) is correct.**

Explanation: Cyber Security is protecting cyber space including critical information infrastructure from attack, damage, misuse and economic espionage.

Types of Cyber Attacks:

Malware, short for malicious software, refers to any kind of software that is designed to cause damage to a single computer, server, or computer network. Ransomware, Spy ware, worms, viruses, and Trojans are all varieties of malware.

Phishing: It is the method of trying to gather personal information using deceptive e-mails and websites.

Denial of Service attacks: It meant to shut down a machine or network, making it inaccessible to its intended users.

Man-in-the-middle (MitM) attacks, also known as eavesdropping attacks, occur when attackers insert themselves into a two-party transaction. Once the attackers interrupt the traffic, they can filter and steal data.

The Indian Computer Emergency Response Team shall serve as the national agency for performing the following functions in the area of cyber security:

- (a) collection, analysis and dissemination of information on cyber incidents;
- (b) forecast and alerts of cyber security incidents;
- (c) emergency measures for handling cyber security incidents;
- (d) coordination of cyber incidents response activities;
- (e) issue guidelines, advisories, vulnerability notes and white papers relating to information security practices, procedures, prevention, response and reporting of cyber incidents;

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- (f) such other functions relating to cyber security as may be prescribed.

It is legally mandatory for service provider, intermediaries, data centres, body corporate or person to report on cyber security incidents.

36. **Option (c) is correct.**

Explanation: The right to vote and to be elected in India in elections is an important constitutional right. Article 326 of the Indian Constitution states that the elections to the House of the People and to the Legislative Assembly of every State shall be on the basis of adult suffrage. Here, adult suffrage means a person should not be less than 21 years of age.

37. **Option (b) is correct.**

Explanation: The evolved Laser Interferometer Space Antenna (eLISA) is a project or mission for exploring the Gravitational Universe from space for the first time. It involves scientists from eight European countries – Denmark, France, Germany, Italy, The Netherlands, Spain, Switzerland, and the UK. “The Gravitational Universe” theme (with eLISA as foreseen implementation) was proposed to the European Space Agency and selected as a science theme for the third large-class mission to be launched in 2034 within the agency’s Cosmic Vision science program.

Three spacecraft will be set in the space under the eLISA mission. It will fly in a triangular formation, trailing the earth in its orbit around the sun at a distance of over 50 million km.

38. **Option (a) is correct.**

Explanation: Vidyanjali is a school volunteer programme and an initiative of the Ministry of Human Resource Development of India to boost community and private sector participation in government schools. Under this programme, volunteers including NRIs, retired teachers, government officials, defence personnel, professionals will offer their services for co-scholastic activities for children from class I to VIII. It is the project launched under the aegis of the Sarva Shiksha Abhiyan by the Department of School Education and Literacy.

It will not replace the teachers in the government schools.

The services of volunteers will be used in developing skills like public speaking, creative writing, counselling, music and dance, not in academics.

39. **Option (b) is correct.**

Explanation: **Unnat Bharat Abhiyan** was launched in 2014. It is a flagship program of the Ministry of Education that aims to link the Higher Education Institutions (HEIs) with a set of at least (5) villages. These institutions can contribute to the economic and social betterment of these village communities. It covers two major domains for holistic development of villages human development and material (economic) development - in an integrated way.

The Indian Institute of Technology Delhi (IIT, Delhi) has been designated as the National Coordinating Institute (NCI) for the UBA scheme.

The programme aims to connect institutions of higher education, including Indian Institutes of Technology (IITs), National Institutes of Technology (NITs) and Indian Institutes of Science Education & Research (IISERs) etc. with local communities to address the development challenges through appropriate technologies.

40. **Option (d) is correct.**

Explanation: The Election Commission of India is an autonomous constitutional authority. Responsible for conducting Union and State election processes in India.

It administers elections to the Parliament State Legislatures the offices of the President and Vice President in the country. Article 324 to 329 of the constitution deals with the Election Commission of India.

The Election Commission of India is a three member body. The President appoints Chief Election Commissioner and two Election Commissioners.

The chairman and the members of the election Commission have a fixed tenure of six years, or up to the age of 65 years, whichever is earlier. The chairman and members of the Election Commission enjoy the same status. Salary and perks as available to Judges of the Supreme Court of India.

The Election Commission resolves the disputes relating to splits/mergers of recognised political parties.

It also decides the election schedules for the conduct of periodic and timely elections, whether general or bye-elections.

41. Option (a) is correct.

Explanation: The 42nd Amendment Act, 1976, Forests and Protection of Wild Animals and Birds was transferred from State to Concurrent List.

Salient Features of the Wildlife (Protection) Act, 1972:

- Prohibition of hunting (any wild animal specified in Schedules I, II, III and IV of the act)
- Prohibition of Cutting/Uprooting Specified Plants
- Declaration and Protection of Wildlife Sanctuaries and National Parks
- Constitution of Various Bodies (the National and State Board for Wildlife, Central Zoo Authority and National Tiger Conservation Authority)

It has six schedules which give varying degrees of protection. Schedule I and part II of Schedule II provide absolute protection -offences under these are prescribed the highest penalties.

Schedule III and Schedule IV species are also protected, but the penalties are much lower. Schedule V species may be hunted. Schedule VI deals with the regulation in cultivation of a species plant and restricts its possession, sale and transportation.

Some of the animals granted protection under the Schedule I include:

- The Black Buck
- Bengal Tiger
- Clouded Leopard
- Snow Leopard
- Swamp Deer
- Himalayan Bear
- Asiatic Cheetah
- etc.

42. Option (a) is correct.

Explanation: The power of the judiciary to examine the constitutionality of legislative enactments or laws and executive orders of both the central and state governments is known as Judicial Review. If the laws and

executive orders on examination are found to be violative of the Constitution (ultra-vires), they can be declared as illegal, unconstitutional and invalid (null and void). It means that such laws and orders cannot be enforced by the government. The constitutional validity of a legislative enactment or an executive order in a high court or supreme court on the following three grounds: (a) if it infringes the fundamental rights (Part III), (b) if it is outside the competence of the authority which has framed it, and (c) if it is repugnant to the constitutional provisions.

43. Option (c) is correct.

Explanation: To overcome the ineffectiveness of the First Round Table Conference, the Second Round Table Conference took place from 7th September 1931 to 1st December 1931 and was held in London along with the active participation of Gandhi and the Indian National Congress who were specially invited for the Conference.

Mahatma Gandhi launched the Quit India Movement at the session of the All-India Congress Committee in Mumbai on 8th August 1942.

The Royal Indian Navy (RIN) mutiny was launched by seamen on the HMIS Talwar on February 18, 1946. The Royal Indian Navy Mutiny (RIN) began at Bombay harbour against the British.

44. Option (d) is correct.

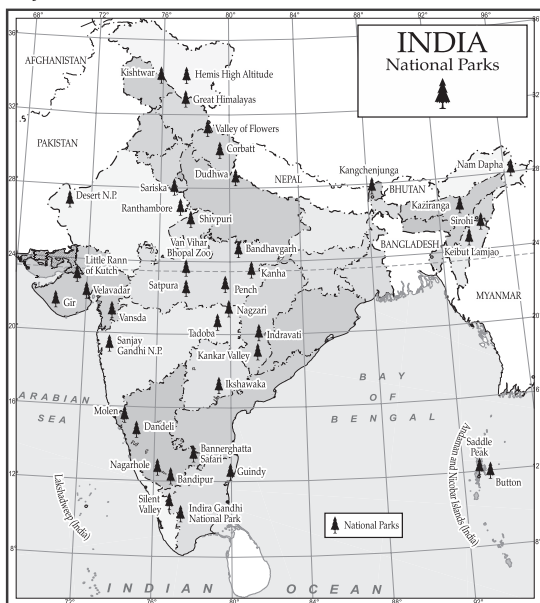
Explanation: Service tax, personal income tax, corporation tax and excise duty rates have been reduced in the recent past to boost aggregate demand to protect the economy from global recession.

Hence, tax revenue as a percent of GDP of India has steadily not increased in the last decade.

Fiscal deficit as a percent of GDP of India has not steadily increased in the last decade.

45. Option (b) is correct.

Explanation:



This map is not to scale and is for reference only.

Figure: Important National Parks in India



This map is not to scale and is for reference only.

Figure: Important wildlife sanctuaries in India

Kuno Palpur in Madhya Pradesh has been as the second home for Asiatic lions found only in Gir national park. The habitat of Kuno Palpur has been fine-tuned for Asiatic lions with abundant populations of herbivores like nilgai, chital, sambhar and chinkara, who are the lions' natural prey.

Geographically, Kuno also features the same kind of semi-arid vegetation in Gir, as it is under the same biogeographic zone. This

should make the transition more seamless for the lions.

About Asiatic lion:

Asiatic lions were once distributed up to the state of West Bengal and Rewa in Madhya Pradesh, but now Gir National Park and Wildlife Sanctuary is the only abode of the Asiatic lion.

Asiatic lions are slightly smaller than African lions. The lions face the usual threats of poaching and habitat fragmentation.

They are listed in Schedule I of the Wildlife (Protection) Act 1972, in Appendix I of CITES and as Endangered on IUCN Red List.

46. Option (b) is correct.

Explanation: Article 355 of the Indian Constitution states that it shall be the duty of the Union to protect every State against external aggression and internal disturbance and to ensure that the government of every State is carried on in accordance with the provision of this constitution.

Article 356 of the Indian Constitution deals with the concept of the President's Rule in the states.

Such a proclamation must also be placed before both the Houses of Parliament (like National Emergency) for its approval.

Effects of President Rule:

The President of India can assume to himself all or any of the functions of the State Government. President to vest all or any of those functions with the Governor or any other executive authority.

The President of India may dissolve the State Legislative Assembly or put it under suspension, and authorise the Parliament to make laws on behalf of the State Legislature.

The President's rule has no effect on the Fundamental Rights of the citizens (unlike the National Emergency under Article 352).

The President can dismiss the state council of ministers headed by the chief minister. The Governor of the concerned State, on behalf of the President, carries on the state administration. The state or the advisors appointed by the President help the Governor in the functioning of the state administration. The President's Rule does not lead to dissolution of local bodies.

47. Option (c) is correct.

Explanation: Right Against Exploitation (Article 23 & 24 of the Indian Constitution):

Article 23 of the Constitution of India prohibits traffic in human beings, begar (forced labour) and other similar forms of forced labour. This

right is available to both citizens and non-citizens.

Article 24 of the Indian Constitution prohibits the employment of children below the age of 14 years in any factory, mine or other hazardous activities, but it does not prohibit their employment in any harmless or innocent work.

48. **Option (a) is correct.**

Explanation:



This map is not to scale and is for reference only.

Figure: Great Nicobar and Sumatra

The Great Nicobar is the largest of the Nicobar Islands of India, north of Sumatra island. It is located in the southernmost part of the Nicobar Islands. Sumatra is located 180 km (110 mi) to the south of the Great Nicobar.

49. **Option (c) is correct.**

Explanation: The Parliamentary system is also known as the 'Westminster' model of government, responsible government and cabinet government. The Constitution establishes the parliamentary system not only at the Centre but also in the states. The characteristics of the parliamentary form of the government in India are:

- Nominal and real executives;
- Majority party rule,
- Collective responsibility of the executive to the legislature,
- Membership of the ministers in the legislature,
- Leadership of the Prime Minister at the Centre or the Chief Minister,
- Dissolution of the Lower House (Lok Sabha or Legislative Assembly).

50. **Option (d) is correct.**

Explanation: A federal system of government has been established by the Constitution of India. The government in India contains all the usual features of a federation, viz., two

government, division of powers, written Constitution, supremacy and rigidity of the Constitution, independent judiciary and bicameralism. The term 'Federation' is nowhere mentioned in the Constitution of India. It is sometimes, considered a quasi-federal system as it has features of both federal and unitary system. Article 1, of the Indian Constitution describes India as a 'Union of States'. Article 1 implies two things: one, Indian Federation is not the result of an agreement by the states; and two, no state has the right to secede from the federation.

51. **Option (d) is correct.**

Explanation: The Harcourt Butler Committee was appointed in 1927 to investigate and clarify the relationship between the paramount power of the British Raj in India, and the rulers of Princely States. The committee had Sir Harcourt Butler as chairman and William Searle Holdsworth and Sidney Peel as members.

The Butler Committee gave its report on the relations between the Indian States and the British India. It advised the Viceroy to represent the Crown in all dealings with the States.

52. **Option (a) is correct.**

Explanation: The Domestic Content Requirement is related to the development of solar power production in our country the World Trade Organisation had ruled against India's policy for solar cells and modules.

53. **Option (d) is correct.**

Explanation: The Nuclear Security Summit (NSS) is a world summit aimed at preventing nuclear terrorism around the globe:

- The idea of Nuclear Security Summit (NSS) was initiated by the US President Barack Obama in 2009.
- Held every two years since 2010, these summits started with the recognition of the risks posed by plutonium and highly enriched uranium (HEU), the key ingredients for making nuclear weapons, and aimed to "secure all vulnerable nuclear material in four years".

The International Panel on Fissile Materials (IPFM) was founded in January 2006. It is an independent group of arms-control and non-

proliferation experts from both nuclear weapon and non-nuclear weapon states. Its members include nuclear experts from seventeen countries: Brazil, Canada, China, France, Germany, India, Iran, Japan, Mexico, Norway, Pakistan, South Korea, Russia, South Africa, Sweden, the United Kingdom, and the United States.

54. **Option (c) is correct.**

Explanation: National Pension System:

The Central Government has introduced the National Pension System (NPS) with effect from January 2004 (except for armed forces). The NPS is being implemented and regulated by Pension Fund Regulatory and Development Authority (PFRDA) in the country.

The National Pension System Trust (NPST) established by PFRDA is the registered owner of all assets under NPS.

The NPS is a defined contribution based Pension Scheme launched by the Government of India.

Eligibility:

- NPS is applicable to all new employees of Central Government service (except Armed Forces), and Central Autonomous Bodies joining Government service on or after 1st January 2004.
- NPS is applicable to all the employees of State Governments, State Autonomous Bodies joining services after the date of notification by the respective State Governments.
- All citizens of India between the age of 18 and 60 years.

55. **Option (b) is correct.**

Explanation: The Teesta river originates from the Pahunri (or Teesta Kangse) glacier. It flows southward through the Sikkim Himalaya. It joins the Rangpo River in the Sikkim Himalaya and forms the border between Sikkim and West Bengal up to Teesta Bazaar. Later, it is met by its main tributary, the Rangeet River. It changes course southwards flowing into West Bengal. Later, it merges with the Brahmaputra River and flows just touching Cooch Behar district at Mekhliganj and moves to Bangladesh. Thus, it does not flow directly

into the Bay of Bengal.

56. **Option (c) is correct.**

Explanation: Zika Virus Disease (ZVD) is caused by a virus transmitted primarily by Aedes mosquitoes (AM), mainly *Aedes aegypti*.

This is the same mosquito that transmits dengue, chikungunya and yellow fever.

Zika virus is also transmitted from mother to fetus during pregnancy, through sexual contact, transfusion of blood and blood products, and organ transplantation.

There is no available vaccine or medicine for Zika virus. Instead, the focus is on relieving symptoms and includes rest, rehydration and acetaminophen for fever and pain.

57. **Option (a) is correct.**

Explanation: A certification from the Bureau of Indian Standards (BIS) in 2010 was made mandatory for all types of automotive tyres and tubes. The Bureau of Indian Standards (BIS) as the National Standards Body of India is established by the Bureau of Indian standards (BIS) Act 2016.

A certification mark employed on agricultural products in India is known as AGMARK. It assures that the agricultural products conform to a set of standards approved by the Directorate of Marketing and Inspection, an agency of the Government of India. The Agricultural Produce (Grading and Marking) Act of 1937 (mended in 1986) legally enforces the AGMARK.

58. **Option (c) is correct.**

Explanation: A pan-India electronic trading portal, known as the National Agriculture Market (NAM), networks the existing APMC mandis to create a unified national market for agricultural commodities.

It provides for contactless remote bidding. It also provides mobile-based anytime payment. The traders do not need to either visit the mandis or banks for the same.

It promotes uniformity, streamlining of procedures across the integrated markets. It removes information asymmetry between buyers and sellers and promotes real time price discovery. It promotes transparency in

auction process and access to a nationwide market for the farmer, with prices commensurate with quality of his produce.

59. Option (c) is correct.

Explanation: The Union Cabinet approved the National Intellectual Property Rights (IPR) Policy in 2016. It will lay the future roadmap for intellectual property the country.

The Department of Industrial Policy & Promotion (DIPP) under the Ministry of Commerce has been appointed as the nodal department for the IPRs. It will coordinate, guide and oversee the implementation and future development of IPRs in India.

A body known as the Cell for IPR Promotion & Management (CIPAM) has been setup under the aegis of DIPP, for the implementation of the objectives of the National IPR Policy.

India's IPR regime is in compliance with the WTO's agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).

It reiterates India's commitment to the Doha Development Agenda and the TRIPS agreement.

60. Option (d) is correct.

Explanation: Gharial (*Gravialis gangeticus*), Indian Wild Ass (*Equus hemionus khur*) and Wild Buffalo (*Bubalus bubalis*) are all mentioned under the Schedule I for the Wildlife (Protection) Act, 1972.

61. Option (d) is correct.

Explanation: The fundamental duties are nonjusticiable in nature like directive principles of state policy (DPSP). The Constitution does not provide for their direct enforcement by the courts. Moreover, there is no legal sanction against their violation.

62. Option (b) is correct.

Explanation: The British Indian Association was established on 31 October 1851. The first committee of the association was composed of:

- Raja Radhakanta Deb – President,
- Raja Kalikrishna Deb – Vice-President,
- Debendranath Tagore – Secretary,
- Digambar Mitra – Assistant Secretary.

In May 1884, M. Veeraraghavachariar, G. Subramania Iyer and P. Anandacharlu established the Madras Mahajana Sabha.

Gazulu Lakshminarasu Chetty founded the Madras Native Association.

In 1876, Indian Association was the first declared Nationalist Organisation founded in British India by Surendranath Banerjee and Anand Mohan Bose.

63. Option (b) is correct.

Explanation: The Preamble secures to all citizens of India liberty of thought, expression, belief, faith and worship through their Fundamental Rights, which are enforceable in court of law if violated. The ideals of liberty, equality and fraternity in our Preamble have been taken from the French Revolution (1789–1799).

64. Option (c) is correct.

Explanation: The Quality Council of India (QCI) has been set up jointly by the Government of India and the Indian Industry to establish and operate national accreditation structure and promote quality through National Quality Campaign. The Indian Industry is represented by the Associated Chambers of Commerce and Industry of India (ASSOCHAM), the Confederation of Indian Industry (CII) and the Federation of Indian Chambers of Commerce and Industry (FICCI). The Department of Industrial Policy & Promotion under the, Ministry of Commerce & Industry, is the nodal ministry for QCI.

The Prime Minister of India appoints the chairman of the QCI on recommendation of the industry to the government.

65. Option (a) is correct.

Explanation: The Small Finance Banks has been set up with the objectives of promoting financial inclusion. Their purpose is

- (a) to save vehicles
- (b) to supply credit to small business units
- (c) to supply credit to small and marginal farmers

to supply credit to micro and small industries and other unorganized sector entities It all will be done through high technology-low cost operations.

66. Option (d) is correct.

Explanation: The APMCHUD (Asia Pacific Ministerial Conference on Housing and Urban Development) is a consultative mechanism on the promotion of sustainable development of Housing and Urban Development in the Asia-Pacific Region. It was established under the aegis and support of UN Habitat.

The first APMCHUD was held in December, 2006 in New Delhi, India.

The theme for the first APMCHUD was 'A Vision for Sustainable Urbanisation in the Asia-Pacific by 2020'.

The subsequent APMCHUD was held in Iran, Indonesia, Jordan and South Korea, chronologically.

'Emerging Urban Forms – Policy Responses and Governance Structure' was the theme of the 6th Conference. The 6th Asia-Pacific Ministerial Conference on Housing and Urban Development (APMCHUD) was held in New Delhi in December 2016.

67. Option (a) is correct.

Explanation: Democracy is a system of government in which the citizens of the concerned state exercise power from their elected representatives.

The democracy is the idea of consent, i.e., the approval and participation of people. A democratic government in a country is created by the decision of people.

So, since democracy requires the decision making of voters; hence, it calls into intelligence and character of ordinary men and women or voters or citizens.

68. Option (a) is correct.

Explanation: UPI (Unified Payments Interface) is a payment system that allows money transfer between any two bank accounts by using smartphones. It allows a customer to pay directly from a bank account to different merchants or other bank accounts, whether online and offline. It doesn't need credit card details, IFSC code, or net banking/wallet passwords. The most likely consequence of implementing the UPI is - mobile wallets will not be necessary for online payments.

69. Option (a) is correct.

Explanation: The terms 'Event Horizon', 'Singularity', 'String Theory' and 'Standard Model' are in the context of the observation and understanding of the Universe. Event Horizon - boundary in space-time.

Singularity - location in spacetime where the gravitational field of a celestial body becomes infinite.

String Theory - links together all physical aspects and used in the context of quantum physics.

Standard Model - unifying the four fundamental forces.

70. Option (d) is correct.

Explanation: The figuring out the order of DNA nucleotides, or bases, in a genome is known as genome sequencing. An organism's DNA is made up of the order of As, Cs, Gs, and Ts..

Genome sequencing can be used to identify disease resistance and drought tolerance genes in various plants. It can develop new varieties of crop plants in lesser time. Genome sequencing can be used in deciphering and understanding the host-pathogen relationship in crops.

71. Option (c) is correct.

Explanation: The Parliamentary system of government is also known as the 'Westminster' model of government. It is also called the responsible government and the cabinet government. The Constitution established the parliamentary system at the Centre as well as in the States. Features of the parliamentary from the government in India are:

- Nominal and real executives;
- Majority party rule,
- Collective responsibility of the executive to the legislature,

72. Option (a) is correct.

Explanation: Rights are what we want others to do for us. The duties are those acts which we should perform for others. A right comes with an obligation to show respect for the rights of others. Duties are the obligations that accompany rights.

73. **Option (a) is correct.**

Explanation: The Supreme Court of India, in the Berubari Union Case (1960), said that the Preamble shows the general purposes behind the several provisions in the Constitution. The Supreme Court also stated in the same case that the Preamble a key to the minds of the makers of the Constitution.

74. **Option (b) is correct.**

Explanation: The shortest route from Kohima (Nagaland) to Kottayam (Kerala) passes through:

Nagaland-Assam-West Bengal-Odisha-Andhra Pradesh-Tamil Nadu-Kerala

75. **Option (d) is correct.**

Explanation: The Parliament exercises control over the ministers through various devices like question hour, discussions, adjournment motion, supplementary questions, no confidence motion, etc.

76. **Option (d) is correct.**

Explanation: A Private Member's bill is introduced by any member of Parliament other than a minister. The introduction of the private member's bill in the House requires one month's notice. Its drafting is the responsibility of the member concerned.

The first Private Member's Bill passed by parliament was the Supreme Court (Enlargement of Criminal Appellate Jurisdiction) Bill, 1968, which became an act on August 9, 1970.

The Rights of Transgender Persons Bill, 2014 is the first private member's bill to get the upper house's approval in the past 45 years.

77. **Option (a) is correct.**

Explanation: Rigvedic Aryans used the coat of mail and helmet in warfare, but the Indus Valley Civilisation people did not leave any evidence of using them.

The Harappan civilisation used various metals to make to make beads. They used stones like carnelian, jasper, crystal, quartz and steatite; metals like copper, bronze and gold; and shell, faience and terracotta or burnt clay.

Evidences of the horse comes from A superficial level of Mohenjodaro and from a terracotta figurine from Lothal. The remains of

the horse have been reported from Surkotada belonging to around 2000 BC. A few horse's teeth have been found from Rana Ghundal. This would indicate that horse-riding nomads found their way to North-west India in small numbers long before the Aryan invasion.

78. **Option (a) is correct.**

Explanation: The Recognition of Prior Learning (RPL) is an assessment of the skills. The Recognition of Prior Learning Scheme assesses the skills of the individual acquired through experience, observation and selflearning. The assessment through the scheme is followed by a certification of skills acquired by construction workers through traditional channels. The certification provides the employee with the confidence, social recognition and empowerment. All three things are necessary to negotiate his/her future employment. After the successful assessment, a candidate is given a financial reward.

79. **Option (a) is correct.**

Explanation: Sathyamangalam forest range is a significant wildlife corridor in the Erode district of Tamil Nadu. It is located in the Nilgiri Biosphere Reserve between the Western Ghats and the rest of the Eastern Ghats.

The Sathyamangalam Tiger Reserve is the largest wildlife sanctuary of Tamil Nadu.

The reserve also adjoins four other protected areas - Billigiriranga Swamy Temple Wildlife Sanctuary, Sigur Plateau, Mudumalai National Park and Bandipur National Park.

80. **Option (a) is correct.**

Explanation: The absence of special privileges to any section of the society is one of the implications of equality. Equality also implies the provision of adequate opportunities for all individuals without any discrimination.

81. **Option (b) is correct.**

Explanation: The TRAFFIC (Trade Records Analysis of Flora and Fauna in Commerce), is the wildlife trade monitoring network. It is the leading non-governmental organisation working globally on trade in wild animals and plants. It is working in the context of both biodiversity conservation and sustainable development.

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It was established in 1976 by the IUCN and the WWF. It was established to respond to the growing threats posed by illegal wildlife trade and over exploitation.

82. **Option (b) is correct.**

Explanation: Four new Directive Principles were to the original list by the 42nd Constitutional Amendment Act, 1976. They are:

- Adequate means of livelihood, ownership and control of material resources, avoid concentration of wealth in a few hands, Equal pay for equal work, etc. (Article 39).
- Equal justice and free legal aid to the poor (Article 39 A).
- Participation of workers in the management of industries (Article 43 A).
- Protect and improve the environment and safeguard forests and wild life (Article 48 A).

83. **Option (c) is correct.**

Explanation: Rights are claims of a person over other fellow beings, over society and over the government. These are legal and moral entitlements.

84. **Option (a) is correct.**

Explanation: The Global Gender Gap Index is released by the World Economic Forum. India is ranked at 140 out of 156 countries, as per the Global Gender Gap Report 2021.

85. **Option (b) is correct.**

Explanation: The smart India Hackathon 2017 was a digital product development competition during which teams of thousands of technology students will built innovative digital solutions for the problems posted by 29 different central government ministries/ departments, e.g., Ministry of Railways, External Affairs, Ministry of Defence, ISRO, Ministry of Tourism, Dept. of Atomic Energy etc.

It was launched to build Digital India and to engage the youth directly with nation building. It was to challenge them to build digital solutions to improve their efficiency, plug revenue leakages and corruption.

Atal Mission for Rejuvenation and Urban Transformation (AMRUT) is a centrally sponsored scheme launched by the Ministry of Housing and Urban Affairs in 2015.

86. **Option (a) is correct.**

Explanation: The Finance Act of 2016 amended the Reserve Bank of India Act, 1934 (RBI Act), to provide for a statutory and institutionalised framework for a Monetary Policy Committee. The MPC would do the task of fixing the benchmark policy rate (repo rate). It is required to maintain inflation within the specified target level.

As per the RBI Act, there will be six Members in the Monetary Policy Committee, 3 Members from the RBI and the other 3 Members will be appointed by the Central Government.

The Governor of the RBI is ex-officio Chairperson of MPC.

87. **Option (b) is correct.**

Explanation: Manipuri Sankirtana is a song and dance performance. It is performed to mark religious occasions and various stages in the life of the Vaishnava people of the Manipur plains.

Sankirtana is performed to narrate the lives and deeds of Krishna through song and dance.

Two drummers and about ten singer dancers perform in a hall or a domestic courtyard encircled by seated devotees.

88. **Option (c) is correct.**

Explanation: In the British territories in the south, the new system was devised, came to be known as the ryotwar (or ryotwari). It was tried by Captain Alexander Read on a small scale in some of the areas at the end of the 18th century. These areas were taken over by the Company after the wars with Tipu Sultan. It was Subsequently developed by Thomas Munro. This was gradually extended all over south India. Lord Cornwallis was associated with the Zamindari /Permanent Settlement.

89. **Option (c) is correct.**

Explanation: The use of naturally occurring organisms to break down hazardous substances into less toxic or non-toxic substances is known as bioremediation treatment. The microorganisms are used to

degrade organic contaminants in soil, groundwater, sludge, and solids. These microorganisms break down contaminants by using them as an energy source or the microorganisms cometabolise the contaminants with an energy source.

Not all contaminants are easily treated by bioremediation. Heavy metals such as cadmium and lead are not readily and completely treated by bioremediation using microorganisms.

Genetic engineering can be used to create micro organisms designed for specific purposes. For e.g., *bacterium Deinococcus radiodurans* has been modified to consume and digest toluene and ionic mercury from highly radioactive nuclear waste. It is the most radio-resistant organism ever known.

90. **Option (d) is correct.**

Explanation: Trade Disputes Act (TDA), 1929:

- Made compulsory, the appointment of Courts of Inquiry and Consultation Boards for settling industrial disputes,
- Banned the strikes in public utility services like posts, railways, water and electricity,
- It forbade trade union activity of coercive or purely political nature and even sympathetic strikes.

91. **Option (b) is correct.**

Explanation: Local self-government can be best explained as an exercise in democratic decentralisation.

92. **Option (d) is correct.**

Explanation: The DPSPs are non-justiciable in nature.

Thus, they don't put limitations on any organ of government, including legislative and executive.

93. **Option (c) is correct.**

Explanation: The term 'Digital Single Market Strategy' refers to the initiative of the European Union.

The 'Digital Single Market Strategy' covers Telecommunication, Digital marketing, and E-commerce.

The digital Market was announced in May 2015 by Juncker Commission.

94. **Option (c) is correct.**

Explanation: Chandipur beach is located in the Balasore district of Odisha. This beach is unique in the whole world. Here the sea water retreats inside the sea from 1 km to 5 km every day, and it again comes back to the shore slowly during high tide. This phenomenon happens twice every day. This beach is also known as the Hide and Seek Beach of Odisha.

95. **Option (b) is correct.**

Explanation: Salient Features of the Prohibition of Benami Property Transaction Act, 1988:

- It prohibits benami transactions and further provides that violation of the PBPT Act is punishable with imprisonment and fine. It also prohibits recovery of the property held benami from benamidar by the real owner.
- Properties held benami are liable for confiscation by the Government without payment of compensation.

A benami transaction includes a transaction made in a fictitious name; where the owner is not aware or denies knowledge of the ownership of the property. The transaction will also be considered benami if the person providing the consideration for the property is not traceable.

- An appellate mechanism under the PBPT Act in the form of Adjudicating Authority and Appellate Tribunal has been provided.

96. **Option (c) is correct.**

Explanation: Butterflies are the pollinating agent.

They help in pollination of many flowering plants. Butterflies also act as a lower member of the food chain. A number of animals, including birds and mice feed on butterfly. As populations of butterflies diminish, so will populations of birds and other animals that rely on them as a food source.

97. **Option (b) is correct.**

Explanation: Production of algae based biofuel is possible both in seas and on continents. Algae can grow on marginal or non-crop land. It can also grow on brackish or polluted water,

but the land-based systems are more developed than sea-based systems. Development and engineering of ABB technology requires a high level of expertise until construction is finished.

A good capital investment is required in all algal based biofuel concepts. Large-scale facilities are more economically viable, but they will have higher social and ecological impacts.

98. Option (a) is correct.

Explanation: The National Nutrition Mission or Prime Minister's Overarching Scheme for Holistic Nutrition (POSHAN Abhiyaan), is a flagship programme to improve nutritional outcomes for children, pregnant women and lactating mothers. It was launched on 8 March 2018 by the Prime Minister of India on the occasion of the International Women's Day. This scheme directs the attention of the country towards the problem of malnutrition and address it in a mission-mode.

99. Option (b) is correct.

Explanation: The Factory Act, 1881: The Factory Act of 1881 prohibited the employment of children under the age of seven, limited the number of working hours for children below the age of twelve. It also required that dangerous machinery should be fenced properly.

Inspectors were appointed to supervise the implementation of these measures. Narayan Meghaji Lokhande was a pioneer of the labour movement in British India.

100. Option (d) is correct.

Explanation: Carbon sequestration is the process involved in carbon capture and the long-term storage of atmospheric carbon dioxide. Geological sequestration involves the storage of CO₂ underground in saline formations or deep, un-minable coal beds and depleted oil and gas reservoirs.