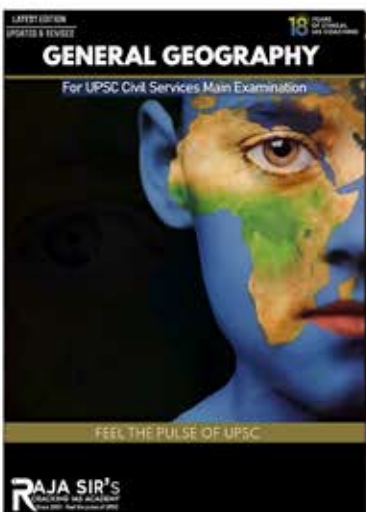
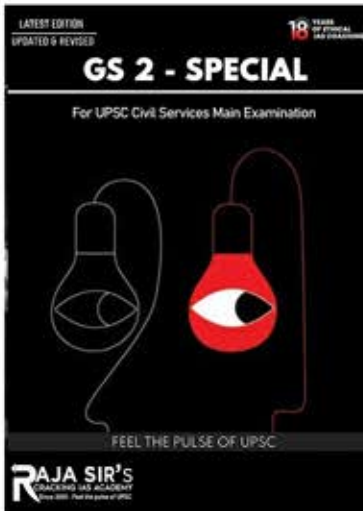


# MONTHLY GENERAL STUDIES QUIZ



**Soligas are an indigenous tribe of**

- (a) Karnataka
- (b) Telangana
- (c) Andhra Pradesh
- (d) Odisha

**Yaw, roll and pitch which is recently seen in news refer to:**

- (a) Positioning in Stock exchange.
- (b) method of warfare.
- (c) terms in liquidity risk.
- (d) Aircraft's attitude.

**Consider the following statements**

- 1. Nasal turbinates are responsible for regulating heat and moisture exchange during respiration.**
- 2. Nasal turbinates are found only in warm blooded creatures.**

**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

**Consider the following statements regarding Permafrost**

- 1. Permafrost is any ground that remains completely frozen—32°F (0°C) or colder—for at least Five years ...**
- 2. Permafrost is made of a combination of soil, rocks....**
- 3. A layer of soil on top of permafrost does not stay ....**

**Select the correct answer using the code given below:**

- (a) Only one statement is true.
- (b) Only Two statements are true.
- (c) All three statements are true.
- (d) None of the statements are true.

1. Pilibhit Tiger Reserve is located in
  - (a) Uttarakhand
  - (b) Uttar Pradesh
  - (c) Madhya Pradesh
  - (d) Gujarat

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

1. The provision of a "vote-on-account" is used by a regular Government, while an "interim budget" is a provision used by a caretaker Government.
2. A "vote-on-account" only deals with the expenditure in Government's budget, while an "interim budget" includes both expenditure and receipts.

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

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

3. In India, if a religious sect/community is given "the status of a national minority, what special advantages it is entitled to?

1. It can establish and administer exclusive educational institutions.
2. The President of India automatically nominates a representative of the community to Lok Sabha.
3. It can derive benefits from the Prime Minister's 15-Point Programme.

Which of the statements given

above is/are correct?

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

4. The authorization for the withdrawal of funds from the Consolidated Fund of India must come from:

- (a.) The President of India
- (b.) The Parliament of India
- (c.) The Prime Minister of India
- (d.) The Union Finance, Minister

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

1. Soil formation
2. Prevention of soil erosion
3. Recycling of waste
4. Pollination of crops

Select the correct answer using the codes given below:

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

6. 'Belle' which is recently seen in news refers to

- (a) an asteroid
- (b) AI robot fish
- (c) a virtual class initiative
- (d) A museum in France

7. PEN Pinter Prize is given for

- (a) Literature
- (b) Journalism
- (c) Screenplay writer
- (d) Philosophy

8. There is a concern: over the

increase in harmful algal blooms in the seawaters of India. What could be the causative factors for this phenomenon?

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

Select the correct answer from the codes given below:

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

9. Which of the following statements are correct w.r.t Atolls ?

1. Atolls are a group of circular coral reefs
2. Atolls form around oceanic volcanic land forms

- (a) Only 1
- (b) Only 2
- (c) Both 1 and 2
- (d) Neither 1 Nor 2

10. How many of the following statements is/are correct ?

1. Evolution of social systems in animals is linked to the adaptations of the species to their geological and ecological settings
2. Colobine Primates in colder regions tend to live in isolation or simple social groupings
3. Social Systems of primates in colder regions has evolved from large complex settings to

simple grouping to endure the harsh conditions

- (a) Only One Statement
- (b) Only Two Statements
- (c) All Three Statements
- (d) None of these

11. Consider the following statements regarding 'Higgs boson particle'

1. The Higgs boson interacts with all the elements that have mass.
2. The Higgs Boson is the only elementary particle with no spin.

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. Consider the following statements regarding 'Deputy Chief Minister'

1. Deputy Chief Minister post is not mentioned in the Constitution.
2. The Deputy CM is equivalent to a Cabinet Minister in terms of rank and perks
3. The chief minister may appoint more than one deputy chief minister

Select the correct answer using the code given below:

- (a) Only one statement is true.
- (b) Only Two statements are true.
- (c) All three statements are true.
- (d) None of the statements are true.

13. Consider the following statements 'Dutch East India Company'

1. The first factory founded by Dutch in India was at Masulipatnam in 1605.
2. Rubber cultivation in India was first introduced by Dutch.

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.

14. Consider the following statements regarding Indian Road Congress (IRC)

1. It was established on the recommendations of 'Jayakar Committee'
2. The IRC was formally registered as a society under the Societies Registration Act, 1860

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.

15. Consider the following statements

1. Chloride limit is permitted in the potable water 250ppm.
2. Chloride, when in contact with water, leads to initiation of corrosion of embedded steel reinforcement

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.

16. **Assertion:** Walkie talkie is a half-duplex communication device

**Reason:** A half-duplex (HDX) system provides communication in both directions, but only one direction at a time.

- (a) Both Assertion (A) and Reason (R) are the true and Reason (R) is a correct explanation of Assertion (A).
- (b) Both Assertion (A) and Reason (R) are the true but Reason (R) is not a correct explanation of Assertion (A).
- (c) Assertion (A) is true and Reason (R) is false.
- (d) Assertion (A) is false and Reason (R) is true

17. Consider the following statements regarding Mathura School of Sculpture

1. The Buddha image at Mathura has Hellenistic features.
2. Jainism, Buddhism & Hinduism were depicted in Mathura style
3. This school was patronized by Kushana rulers

Select the correct answer using the code given below:

- (a) Only one statement is true.
- (b) Only Two statements are true.
- (c) All three statements are true.
- (d) None of the statements are true.



18. Consider the following statements regarding 'Gujjars'
1. Gujjars are pastoral community native to Arunachal Pradesh.
  2. They are known for their *morel* hunting skills.
  3. They are listed as Scheduled tribe in Assam.

Select the correct answer using the code given below:

- (a) Only one statement is true.
- (b) Only Two statements are true.
- (c) All three statements are true.
- (d) None of the statements are true.

19. 'Sturgeon' which is recently seen in news refers to
- (a) an ancient fish.
  - (b) a perennial shrub endemic to Uttarakhand.
  - (c) amphibian.
  - (d) India - Australia joint naval exercise.

20. Consider the following pairs

<b>States</b>	<b>Major Festival</b>
1. Meghalaya	Nongkrem Festival
2. Mizoram	Chapchar Ki
3. Nagaland	Hornbill fest
4. Uttarakhand	Gangaur

Which of the above pairs are true?

- (a) Only one pair is true.
- (b) Only Two pairs are true.
- (c) Only three pairs are true.

- (d) All the pairs are true.

21. Consider the following statements regarding *Metallurgical coke*

1. It is produced by heating bituminous coal in the absence of air.
2. It is used as a fuel and reducing agent in the production of iron and steel.

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.

22. Orkney Islands which is recently seen in news is located in
- (a) Scotland
  - (b) Japan
  - (c) Indonesia
  - (d) South china sea

23. Consider the following statements

1. The Global Ocean Commission grants licences for seabed exploration and mining in international waters.
2. India has received licences for seabed mineral exploration in international waters
3. 'Rare earth minerals' are present on the seafloor in international waters.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only

- (c) 1 and 3 only  
(d) 1, 2 and 3
24. Random unidirectional change in allele frequencies that occurs by chance in all populations and specially in a small population is known as  
(a) Natural selection  
(b) Epistasis  
(c) Genetic drift  
(d) Mutation
25. Industrial Nitrogen Fixation is carried out by which of the following process  
(a) Friedel Crafts Reaction  
(b) Helmons Process  
(c) Haber Process  
(d) Bayer Process
26. Consider the following statements:  
1. No grazing of livestock is allowed in a National Park  
2. Wildlife Sanctuary is species oriented.  
3. Buffer zone of a Biosphere Reserve is an area of active cooperation between forest management and local community.
- Which of the statements given above are correct?  
(a) 2 only  
(b) 2 and 3 only  
(c) 1 and 3 only  
(d) 1, 2 and 3
27. 'Spring Shock' is best defined  
(a) as the release of sulphuric acid in water bodies due to the melting of snow in Spring  
(b) as the sudden change in air temperature at the onset of spring season.  
(c) as the change in colours of leaves in montane forests due to varied humidity in spring season.  
(d) as the increase in algal growth in water bodies during spring summer season
28. The winter rainfall in India is the result of cyclones originating from  
(a) Red Sea  
(b) Arabian Sea  
(c) Mediterranean Sea  
(d) Bay of Bengal
29. Which of the following launched the 'Digital Innovation Alliance programme' ?  
(a) International Monetary Fund  
(b) World Bank  
(c) G7  
(d) G20
30. The major aerosol pollutant in jet emissions is  
(a) Sulphur dioxide  
(b) Carbon monoxide  
(c) Hexafluoride  
(d) Fluorocarbon
31. The phosphorus cycle is unusual in that it is entirely  
(a) aquatic  
(b) terrestrial  
(c) sedimentary  
(d) perfect cycle

32. Which of these is not the function of World Bank?  
(a) To act as the reservoir of the currencies countries. of all the member  
(b) To help the member countries in the reconstruction and development of their countries.  
(c) To encourage private foreign investment and guaranteeing repayment.  
(d) To promote long term balanced growth of international trade.
33. During deflation, it is advisable to  
(a) Lower the bank rate and purchase of securities in the open market  
(b) Increase the bank rate and purchase of securities in the open market  
(c) Decrease in bank rate and sale of securities in the open market  
(d) Increase in bank rate and sale of securities in the open market
34. 1. Ethiopia  
2. Eritrea  
3. Sudan  
4. Djibouti
- Which of the following countries does not open into the Red Sea?  
(a) 1, 2 and 3 only  
(b) 2, 3 and 4 only  
(c) 1, 2 and 4 only

(d) 1, 2, 3 and 4

35. "Basrah Medium" seen in news refer to the context of  
(a) Crude oil grading  
(b) Grading of Lithium ore  
(c) Grading of enriched uranium  
(d) Grade of imported coal
36. Consider the following statements in the context of interventions being undertaken under Anaemia Mukht Bharat
1. It provides prophylactic calcium supplementation for pre-school children, adolescents and pregnant women.
  2. It runs a campaign for delayed cord clamping at the time of childbirth.
  3. It provides for periodic deworming to children and adolescents.
  4. It addresses non-nutritional causes of anaemia in endemic pockets with special focus on malaria, hemoglobinopathies and fluorosis.
- How many of the statements given above are correct?  
a) Only one  
b) Only two  
c) Only three  
d) All four Interventions of Anaemia Mukht Bharat
37. Which of the following are the discretionary powers given to the Governor of a State?  
1. Sending a report to the President of India for imposing the President's

- rule
2. Appointing the Ministers
  3. Reserving certain bills passed by the State Legislature for consideration of the President of India
  4. Making the rules to conduct the business of the State Government

Select the correct answer using the code given below:

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

38. The Himalayan Range is Very rich in species diversity. Which one among the following is the most appropriate reason for this phenomenon?
- (a.) It has a high rainfall that supports luxuriant vegetative growth
  - (b.) It is a confluence of different bio-geographical zones
  - (c.) Exotic and invasive species have not been introduced in this region
  - (d.) It has less human interference
39. Under the Constitution of India, which one of the following is not a fundamental duty?
- (a.) To vote in public elections
  - (b.) To develop the scientific temper
  - (c.) To safeguard public property
  - (d.) To abide by me Constitution and respect its ideals
40. With reference to the Finance Commission of India, which of

the following statements is correct?

- (a.) It encourages the inflow of foreign capital for infrastructure development
- (b.) It facilitates the proper distribution of finances among the Public Sector Undertakings
- (c.) It ensures transparency in financial administration
- (d.) None of the statements (a), (b) and (c) given above is correct in this context

41. What was/were the object/objects of Queen Victoria's Proclamation (1858)?
1. To disclaim any intention to annex Indian States
  2. To place the Indian administration under the British Crown
  3. To regulate East India Company's trade with India

Select the correct answer using the code given below.

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

42. The 1929 Session of Indian, National Congress is of significance in the history of the Freedom Movement because the
- A. attainment of Self-Government was declared as the objective of the Congress
  - B. attainment of Purna Swaraj Was adopted as the goal of the Congress
  - C. Non-Cooperation Movement was launched
  - D. decision to participate in

the Round Table Conference in London was taken

43. The Partition of Bengal made by Lord Curzon in 1905 lasted until
- the First World War when Indian troops were needed by the British and the partition was ended.
  - King George V abrogated Curzon's Act at the Royal Darbar in Delhi in 1911
  - Gandhiji launched his Civil Disobedience Movement
  - the Partition of India, in 1947 when East Bengal became East Pakistan
44. The "Red Data Books" published by the International Union for Conservation of Nature and Natural Resources (IUCN) contain lists of:
- Endemic plant and animal species present in the biodiversity hotspots,
  - Threatened plant and animal species.
  - Protected sites for conservation of nature and natural resources in various countries.
- Select the correct answer using the codes given below:
- 1 and 3
  - 2 only
  - 2 and 3
  - 3 only
45. Human activities in the recent past have Caused the increased concentration of carbon dioxide

in the atmosphere, but a lot of it does not remain in the lower atmosphere because of :

- its escape into the outer stratosphere.
- the photosynthesis by phyto-plankton in the oceans.
- the trapping of air in the polar ice caps.

Which of the statements given above is/are correct?

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

46. Mukurthi National Park is located in
- Tamil Nadu
  - Kerala
  - Telangana
  - Karnataka

47. With reference to the Sanjhi art, consider the following statements:

- The traditional art form originated out of the cult of Krishna.
- It involves creating stencils based on incidents from the life of the deity and then hand-cutting these on thin sheets of paper using scissors.

Which of the statement(s) given above is/are correct?

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



48. With reference to the Indus river system, of the following four rivers, three of them pour into one of them which joins the Indus directly. Among the following, which one is such a river that joins the Indus direct?
- Chenab
  - Jhelum
  - Ravi
  - Sutlej

49. All revenues received by the Union. Government by way of taxes and other receipts for the conduct of Government business are credited to the:
- Contingency Fund of India
  - Public Account
  - Consolidated Fund of India
  - Deposits and Advances Fund

50. When the annual Union Budget is not passed by the Lok Sabha
- the Budget is modified and presented again
  - the Budget is referred to the Rajya Sabha for suggestions
  - the Union Finance Minister is asked to resign,
  - the Prime Minister submits the resignation of Council of Ministers

51. Consider the following statements regarding International Union for Protection of New Plant Varieties
- The Convention was adopted in Paris convention.
  - India is not a member.
  - There are no restrictions on who can be considered

to be a breeder under the UPOV system

Select the correct answer using the code given below:

- Only one statement is true.
- Only Two statements are true.
- All three statements are true.
- None of the statements are true.

52. Consider the following statements regarding Desalination

- It uses reverse osmosis technology.
- Brine is the by-product in desalination processes.
- Brine has been used for aquaculture, with increases in fish biomass.

Select the correct answer using the code given below:

- Only one statement is true.
- Only Two statements are true.
- All three statements are true.
- None of the statements are true.

53. Consider the following statements

- Lambani art is a traditional form of art and craft practised by Banjara community
- It has the status of Geographic Indication (GI) tag

Select the correct answer using the code given below:

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

54. Consider the following statements regarding Guillain-Barre syndrome

1. It is a autoimmune disorder where the body's immune system mistakenly attacks the peripheral nerves.
2. Guillain-Barre syndrome is a fungal infection.

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.

55. Consider the following statements regarding Shelf Cloud

1. It is a type of low-lying, horizontal cloud formation
2. It is formed when cold and dense air is forced into a warmer air mass by wind.

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.

56. Consider the following statements regarding 'Ladakh Shingskos'

1. It is Ladakh's famous wood carving handicraft.
2. It has got a Geographical Indication (GI) tag.

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.

57. With reference to the Ramappa Temple, consider the following statements:

1. It was constructed during the reign of the Satavahana dynasty.
2. The foundation is built with the "sandbox technique"
3. The temple is dedicated to lord Vishnu.

How many of the statements given above are correct?

- (a) Only one statement is true.
- (b) Only Two statements are true.
- (c) All three statements are true.
- (d) None of the statements are true.

58. Consider the following statements regarding Schengen Area

1. It is the free and unrestricted movement of people and do not carry out checks at their internal borders within the member countries.
2. Schengen Area is confined only to EU member states

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.

59. Consider the following statements

1. A periscope works under law of refraction.
2. In a periscope mirrors are placed at a  $90^\circ$  angle.

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.

60. Sariska Tiger Reserve is located in
- (a) Telangana
  - (b) Andhra Pradesh
  - (c) Karnataka
  - (d) Rajasthan

61. Consider the following statements regarding amphibian

1. All Amphibian species have a life cycle that involves three stages, Embryo, young, adult.
2. Amphibians do not produce amniotic eggs.
3. In order to absorb oxygen, the skin of an amphibian has to stay wet.

Select the correct answer using the code given below:

- (a) Only one statement is true.
- (b) Only Two statements are true.
- (c) All three statements are true.
- (d) None of the statements are true.

62. Consider the following statements regarding *Solar Maximum*

1. The sun goes through a natural solar cycle every

11 years.

2. Sun's magnetic field completely flips during this, ie.the Sun's north and south poles switch places.

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.

63. Which of the following are considered to be special powers of Armed Forces (Special Powers) Act (AFSPA)

1. Use force even to the extent of causing death
2. Arrest without a warrant.
3. Armed forces are immune from prosecution unless the Union Government provides sanction

Select the correct answer using the code given below:

- (a) Only one statement is true.
- (b) Only Two statements are true.
- (c) All three statements are true.
- (d) None of the statements are true.

64. The Multi-dimensional Poverty Index covers which of the following?

1. Deprivation of education, health, assets and services at household level
2. Purchasing power parity at national level
3. Extent of budget deficit and GDP growth rate at national level

Select the correct answer using the codes given below:

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

65. Which one of the following statements best reflects the Chesapeake Bay, sometimes mentioned in the news?

- (a) Disputed region in south china sea
- (b) Estuary in the United States of America
- (c) Region in Ukraine occupied by Russia
- (d) Artificial Island created by Brazil

66. Consider the following statements regarding The Legion of Honour:

- 1. The Order was established by Napoleon Bonaparte in 1802.
- 2. It is the highest French decoration for both civil and military achievements.
- 3. There is no material or financial benefit attached to the award.

How many of the above statements is/are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

67. Kaas Plateau is located in

- (a) Maharashtra
- (b) Jharkhand
- (c) Rajasthan
- (d) Madhya Pradesh.

68. Consider the following statements regarding Germanium

- 1. Germanium is a metalloid.
- 2. They are also used in solar cells for their ability to withstand heat and higher energy conversion efficiency.

How many of the above statements are correct?

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

69. In the process of crying, tear fluid is produced by

- (a) lacrimal gland
- (b) Upper punctum
- (c) Tear duct
- (d) Lower punctum

70. Consider the following statements regarding 'Lagrange points'

- 1. Lagrange Points are positions in space where the gravitational pull is high
- 2. Lagrange Point - 3 is ideal for astronomy because a spacecraft is close enough to readily communicate with Earth
- 3. Lagrange Point - 1 point remains hidden behind the Sun at all times.

How many of the above statements are correct?

- (a) Only one statement is true
- (b) Only two statements are true
- (c) All three statements are true

(d) None of the statements are true

71. Consider the following statements regarding cultural history of modern India:

1. Reformist movement relied to a greater degree on the lost purity of religion they sought to reform whereas Revivalist movements relied more on reason and rationalism in accepting or rejecting a social custom or religious tradition.
2. Brahmo Samaj, Aligarh movement are considered as a Revivalist movements

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

72. Consider the following pairs  
Pre monsoonal showers – Settles over

1. KalBaisakh – North east of India
2. BardoliChheerha – Gujarat and surrounded areas
3. Mango showers – Kerala and nearby region

How many of the above are correctly matched?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

73. Consider the following statements about Import licensing:

1. WTO's General Agreement on Tariffs and Trade (GATT) prohibits qualitative restrictions on imports.
2. WTO recognizes that import licensing can be used as a legitimate trade policy tool

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

74. Consider the following statements:

1. Stand-by Arrangements under IMF provides quick Loan program financing for countries with urgent balance of payments needs.
2. Under Extended Fund Facility, IMF will address balance of payments difficulties from structural weaknesses.

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

75. Consider the following statements regarding Parkinson's disease

1. Parkinson's disease is caused by the degeneration of nerve cells in the part of the



brain called the substantia nigra, which controls movement.

2. Women are more likely to be affected by Parkinson's than Men.
3. There is no cure for Parkinson's disease.

Select the correct answer using the code given below:

- (a) Only one statement is true.
- (b) Only Two statements are true.
- (c) All three statements are true.
- (d) None of the statements are true.

76. Consider the following statements regarding 'AT1 bonds'

1. These bonds are mandatory under Basel=III norms.
2. These bonds are long-term and do not carry any maturity date.

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.

77. Consider the following statements regarding *Duchenne's Muscular Dystrophy*

1. It is a rare genetic disorder causes progressive muscle degeneration.
2. It is caused by the alterations of a protein called dystrophin
3. The dystrophin gene is found on the X-chromosome, it primarily

affects males

Select the correct answer using the code given below:

- (a) Only one statement is true.
- (b) Only Two statements are true.
- (c) All three statements are true.
- (d) None of the statements are true.

78. Consider the following statements regarding 'Rubber Board'

1. It is a statutory organization
2. Rubber Board constituted under the Rubber Act, 1947.
3. It functions under the administrative control of the Ministry of Commerce and Industry.

Select the correct answer using the code given below:

- (a) Only one statement is true.
- (b) Only Two statements are true.
- (c) All three statements are true.
- (d) None of the statements are true.

79. Maputo Protocol which is recently seen in news related to

- (a) Gender equality
- (b) It is a convention on Persistent Organic Pollutants
- (c) Reducing Emissions from Deforestation and Forest Degradation.
- (d) protect health and the environment from the adverse effects of mercury.

80. Ramgarh Vishdhari Tiger Reserve is located in

- (a) Gujarat.
- (b) Maharashtra.
- (c) Madhya Pradesh.
- (d) Rajasthan.

81. Consider the following statements regarding *Namda Art*

1. Namda is a type of traditional Kashmiri woven carpet
2. It is created using sheep wool

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.

82. Consider the following statements regarding Hoolock Gibbon

1. The tailless Hoolock Gibbon is the only ape found in India.
2. There are two types of Gibbon species based on the colour of its coat. ie. Western Gibbon & Eastern Gibbon

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.

83. Consider the following statements regarding Bonalu festival

1. The festival is dedicated to Goddess Mahakali
2. It is an annual festival celebrated in

Maharashtra.

Select the incorrect answer using the code given below:

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

84. Nomadic Elephant is a bilateral military exercise between

- (a) India - Indonesia.
- (b) India - Malaysia.
- (c) India - Mongolia.
- (d) India - Philippines.

85. Consider the following statements regarding Vittala Temple

1. It was built during the reign of King Devaraya II
2. It is dedicated to Lord Vitthala, an incarnation of Lord Shiva.
3. It is built in the Dravidian style of architecture.

Select the correct answer using the code given below:

- (a) Only one statement is true.
- (b) Only Two statements are true.
- (c) All three statements are true.
- (d) None of the statements are true.

86. 'Jumboization' is a term which is recently seen in news related to

- (a) a technique in shipbuilding
- (b) a technique used for flood control
- (c) calculating distances of far away stars.
- (d) collection of evidence gathered on ways to conserve mammal species

87. Consider the following statements regarding 'Gharials'
1. Gharials are the only living crocodylian with visible sexual dimorphism
  2. Gharial females develop a hollow bulbous nasal protuberance at sexual maturity

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.

88. 'Gambusia affinis', Which is widely used in controlling mosquito-borne diseases is a
- (a) an amphibian
  - (b) a fish
  - (c) Unique dragonfly species native to South america
  - (d) a bird

89. Consider the following statements regarding *External Commercial Borrowings*

1. RBI sets limits on the amount of ECB that Indian companies can obtain.
2. Increase in ECB will eventually increase the external debt of the country.

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.

90. Alkire-Foster (AF) method is recently seen in news related to
- (a) method to get metals with high purity
  - (b) a credit-push system
  - (c) measuring multidimensional poverty
  - (d) measuring protein content in foods

91. Consider the following statements regarding Gamocha
1. Gamocha is a traditional handwoven cotton towel
  2. It has Geographical indication status.
  3. It is used during the Bihu festival.

Select the correct answer using the code given below:

- (a) Only one statement is true.
- (b) Only Two statements are true.
- (c) All three statements are true.
- (d) None of the statements are true.

92. Diphtheria is a
- (a) Viral disease
  - (b) Bacterial disease
  - (c) Fungal disease
  - (d) protozoan disease

93. With reference to the Samarth Ramdas, consider the following statements:

1. Ramdas initiated the Samarth sect with a mission to unite the Hindu populations.
2. He was a contemporary of Mughal Emperors Jahangir and Shahjahan.

Which of the statements given above are correct?

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

94. "Acinetobacter baumannii" was in the news recently. It is

- (a) Flu Vaccine
- (b) Antibiotic-resistant bacteria
- (c) Blood disorder
- (d) Used in prematurely born children to prevent infection.

95. The concept of "Equal justice and free legal aid" is mentioned in the Constituion of India in

- 1. Fundamental Duties
- 2. Directive Principles of State Policies
- 3. Fundamental Rights

Select the correct answer using the codes given below:

- (a) Only one
- (b) Only Two
- (c) All three
- (d) None

96. Consider the following statements regarding Desiccation-tolerant (DT) vascular plants

- 1. They are usually found in rocky outcrops in the tropics.
- 2. DT plant varieties are found in both flowering and non-flowering species

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.

97. With reference to the Indian Citizenship Act of 1955, consider the following statements:

- 1. If a person has ever held an Indian passport and has obtained a passport of another country, they are required to immediately surrender their Indian passport.
- 2. Persons of Indian Origin are allowed dual citizenship.

which of the statements given above are correct?

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

98. With reference to the 103rd Amendment Act, consider the following statements:

- 1. It inserted Articles 15(6) and 16(6) in the Constitution of India.
- 2. The EWS reservation was granted based on the recommendations of the Sinho Commission.

which of the statements given above are correct?

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

99. Consider the following statements:

1. The advice tendered by Ministers to the President shall not be inquired into in any court.
2. The Ministers shall hold office during the pleasure of the Prime Minister.
3. The total number of Ministers, including the Prime Minister, in the Council of Ministers shall not exceed 10 per cent.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) None

100. The right descending order arrangement is:

- (a) Eons, eras, periods, epochs and ages.
- (b) Eons, eras, epochs, periods, and ages.
- (c) Eons, epochs, eras, periods, and ages.
- (d) Epochs, eons, eras, periods, and ages.

101. Which of the following countries does the Sahara desert cover?

1. Algeria
  2. Chad
  3. Morocco
  4. Ethiopia
  5. Sudan
- (a) 1, 2 and 4
  - (b) 2, 3, 4 and 5

- (c) 1, 2 and 5
- (d) All the above

102. Mainpuri ki Pratigya and Ghulami Mita were written by

- (a) Makhanlal Chaturvedi
- (b) Harivansh Rai Bachchan
- (c) Shyamlal Gupta
- (d) Ram Prasad Bismil

103. Which of the following factors are responsible for the Texas fish kill

1. Clear skies
  2. Low level of dissolved oxygen
  3. Warm sea temperature
  4. Calm seas
- (a) 2, 3 and 4.
  - (b) 2 and 3
  - (c) 2 Only
  - (d) All the above

104. Consider the following statements about Tropical cyclones

1. They are known as hurricanes in the Caribbean Sea.
2. The winds blow clockwise in the Northern Hemisphere and counterclockwise in the Southern Hemisphere.

which of the above statements are true?

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

105. Tankai Method which is recently seen in news related to

- (a) a ancient technique in



shipbuilding.  
(b) a technique used for flood control.  
(c) calculating distances of far away stars.  
(d) collection of evidence gathered on ways to conserve mammal species.

106. Silica gel is used as a packing material for
1. absorb moisture
  2. eliminate odour
  3. kills bacteria
  4. prevent the growth of molds
- Select the correct answer using the code given below:
- (a) 1 only.  
(b) 1 and 2.  
(c) 1 and 3.  
(d) 1, 2 and 4.

107. Clarion-Clipperton Zone refers to
- (a) search for meteorites containing precious metals  
(b) a fracture zone in the Pacific Ocean.  
(c) search for the Earth-like planets in outer space  
(d) the limits of habitable zone above the surface of the Earth

108. Consider the following statements regarding White's Seahorse
1. In White's Seahorse the male fertilises the eggs.
  2. It is classified as Endangered species in IUCN Red list.
  3. White's Seahorse are endemic to Australia.
- Select the correct answer using

the code given below:

(a) Only one statement is true.  
(b) Only Two statements are true.  
(c) All three statements are true.  
(d) None of the statements are true.

109. With reference to the Anthropocene epoch, consider the following statements:
1. It is a term to denote the present geological time interval, in which the Earth's ecosystem has gone through radical changes due to human impact.
  2. Epoch is the broadest category of geological time.

Which of the statement(s) given above is/are correct?

- (a) 1 only  
(b) 2 only  
(c) Both 1 and 2  
(d) Neither 1 nor 2
110. With reference to 'fly ash' produced by the power plants using coal as fuel, which of the following statements is/are correct?
1. Fly ash can be used in the production of bricks for building construction.
  2. Fly ash can be used as a replacement for some of the Portland cement contents of concrete.
  3. Fly ash is made up of silicon dioxide and calcium oxide only, and does not contain any

- toxic elements.  
Select the correct answer using the code given below:
- (a) 1 and 2  
(b) 2 only  
(c) 1 and 3  
(d) 3 only
111. Consider the following statements regarding Safdarjung Tomb
1. Safdarjung Tomb is the last garden tomb constructed in the late Mughal Empire Style.
  2. It was built by Nawab Shujaud Daula.
- 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.
112. Assertion (A) : Despite Panchayat (Extension to Scheduled Areas) Act (PESA), 1996, mandates that every village should have a gram sabha, Zero Village have no elected representatives or gram sabhas.  
Reason (R) : Zero village do not feature in revenue records.
- (a) Both Assertion (A) and Reason (R) are the true and Reason (R) is a correct explanation of Assertion (A).  
(b) Both Assertion (A) and Reason (R) are the true but Reason (R) is not a correct explanation of Assertion (A).  
(c) Assertion (A) is true and Reason (R) is false.  
(d) Assertion (A) is false and Reason (R) is true.

113. What are the following changes occurred during Miocene epoch
1. India collided with Asia
  2. Tethys Sea disappeared.
  3. Accelerated evolution among marine plankton and molluscs.
- (a) Only one statement is true.  
(b) Only Two statements are true.  
(c) All three statements are true.  
(d) None of the statements are true.
114. Consider the following statements about Raigad Fort:
1. Raigad Fort is listed as World Heritage Site
  2. Chhatrapati Shivaji captured it from the More's of Javli who were under the suzerainty of the Adilshahi Sultanate
- How many of the statements given above are correct?
- (a) 1 only.  
(b) 2 only.  
(c) Both 1 and 2.  
(d) Neither 1 nor 2.
115. Consider the following statements regarding Kari Ishad mango
1. Kari Ishad Mango has got a GI tag
  2. They are prominently grown in Maharashtra
- 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.

116. With reference to the Fair and Remunerative Price (FRP), consider the following statements:

1. It is determined on the basis of recommendations of the Commission for Agricultural Costs and Prices.
2. The decision to increase or decrease the FRP is taken by the Ministry of Agriculture.

How many of the statements given above are correct?

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

117. Consider the following statements regarding *Scrub typhus*

1. It is a bacterial disease
2. It is a communicable disease
3. Currently there is no vaccine available for this disease.

Select the correct answer using the code given below:

- (a) Only one statement is true.
- (b) Only Two statements are true.
- (c) All three statements are true.
- (d) None of the statements are true.

118. In the Parliament of India, the purpose of an adjournment motion is

- (a) to allow a discussion on a definite matter of urgent public

importance

(b) to let opposition members collect information from the ministers

(c) to allow a reduction of specific amount in demand for grant

(d) to postpone the proceedings to check the inappropriate or violent behaviour on the part of some members

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

1. There is no mention of a No-Confidence Motion in the Constitution of India.
2. A Motion of No-Confidence can be introduced in the Lok Sabha only.

Which of the statements given above is / are correct?

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

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

1. Preparation of agenda for Cabinet Meetings
2. Secretarial assistance to Cabinet Committees
3. Allocation of financial resources to the Ministries

Select the correct answer using the code given below.

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

121. Which of the following countries bordering 'Niger'
1. Algeria
  2. Libya
  3. Nigeria
  4. Mali
  5. Burkina Faso
- (a) 1, 2, 3 and 5  
(b) 2, 3, 4 and 5  
(c) 1, 2, 4 and 5  
(d) 1, 2, 3, 4 and 5
122. Consider the following statements regarding Joint Sitting
1. In the absence of the Speaker the sitting is presided over by the Deputy Chairman of the Rajya Sabha.
  2. The quorum to constitute a joint sitting is 1/10th of the total number of members of the House.
- 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.
123. Consider the following statements regarding Stapled Visas
1. A Stapled Visa does not leave a permanent trace on one's passport.
  2. China issues stapled visas to the citizens of two Indian states (Arunachal Pradesh and Jammu & Kashmir)
- 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.
124. Dhala Crater is located in
- (a) Andhra Pradesh
  - (b) Maharashtra
  - (c) Madhya Pradesh
  - (d) Chhattisgarh
125. Consider the following statements regarding Short-lived halogens
1. They are produced naturally by phytoplankton and algae found in the oceans
  2. Oceans to cooling of the planet by emitting short-lived halogens.
- 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.
126. Shiveluch volcano is located in
- (a) Japan
  - (b) Russia
  - (c) Indonesia
  - (d) Philippines
127. Consider the following statements regarding Permafrost
1. Permafrost is any ground that remains completely frozen—32°F (0°C) or colder—for at least Five years straight.
  2. Permafrost is made of a combination of soil, rocks and sand
  3. A layer of soil on top of

- permafrost does not stay frozen all year.  
Select the correct answer using the code given below:  
(a) Only one statement is true.  
(b) Only Two statements are true.  
(c) All three statements are true.  
(d) None of the statements are true.
128. Consider the following statements regarding Digital Payment Index
1. It is released by the Reserve Bank of India to measure the extent of digitisation of payments.
  2. The base period of the index is March 2018.
- 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.
129. Consider the following statements
1. Rights of Persons with Disabilities Act, 2016 defines Person with Benchmark Disability as "A person with not less than 50% of a specified disability"
  2. Biwako Millennium Framework provides policy recommendations for governments and stakeholders in Asia and the Pacific to achieve an inclusive, rights-based society for persons with disabilities.
- 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.
130. Lippan art is native to  
(a) Rajasthan  
(b) Gujarat  
(c) Assam  
(d) Odisha
131. Rhodes island which is recently seen in news located in  
(a) Indonesia  
(b) Japan  
(c) Greece  
(d) Turkey
132. Which one of the following pairs does not form part of the six systems of Indian Philosophy?  
(a) Mimamsa and Vedanta  
(b) Nyaya and Vaisheshika  
(c) Lokayata and Kapalika  
(d) Sankhya and Yoga
133. Which one of the following describes best the concept of Nirvana in Buddhism?  
(a) The extinction of the flame of desire  
(b) The complete annihilation of self  
(c) A state of bliss and rest  
(d) A mental stage beyond all comprehension
134. With reference to the scientific progress of ancient India, which of the statements given below are correct?  
1. Different kinds of



specialized surgical instruments were in common use by 1st century AD.

2. Transplant of internal organs in the human body had begun by the beginning of 3rd century AD.
3. The concept of sine of an angle was known in 5th century AD.
4. The concept of cyclic quadrilaterals was known in 7th century AD.

Select the correct answer using the codes given below :

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

135. The Lahore Session of the Indian National Congress (1929) is very important in history, because

1. The Congress passed a resolution demanding complete independence
2. The rift between the extremists and moderates was resolved in that Session
3. A resolution was passed rejecting the two-nation theory in that Session

Which of the statements given above is/are correct?

- (a) I only
- (b) 2 and 3
- (c) 1 and 3
- (d) None of the above

136. Consider the following statements

Horripilation

1. It is controlled by sympathetic nervous system.
2. Horripilation has also recorded in animals.

Select the correct answer using the code given below:

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

137. Consider the following statements regarding Government Railway Police

1. GRP submits its report to the state government.
2. They are responsible generally for protecting Railway property.
3. The duties of the Government Railway Police as regards the areas in their jurisdiction correspond in general to those of the District Police in the areas under their charge

Select the correct answer using the code given below:

- (a) Only one statement is true.
- (b) Only Two statements are true.
- (c) All three statements are true.
- (d) None of the statements are true.

138. The term 'Homologation' which is recently seen in news refers to

- (a) calculating distances of far away stars.
- (b) a process by which a product is certified as meeting the technical and safety regulations
- (c) a technique used for flood

- control.  
(d) collection of evidence gathered on ways to conserve mammal species.
139. Which one of the following statements best describes the term 'Social Cost of Carbon'? It is a measure, in monetary value, of the  
(a) long-term damage done by a tonne of CO<sub>2</sub>, emissions in a given year  
(b) requirement of fossil fuels for a country to provide goods and services to its citizens, based on the burning of those fuels  
(c) efforts put in by a climate refugee to adapt to live in a new place  
(d) contribution of an individual person to the carbon footprint on the planet Earth
140. Yaw, roll and pitch which is recently seen in news refer to:  
(a) Positioning in Stock exchange.  
(b) method of warfare.  
(c) terms in liquidity risk.  
(d) Aircraft's attitude.
141. Consider the following statements regarding Kelp forest  
1. Kelp forests are underwater ecosystems formed in dense water by the dense growth of several different species.  
2. Kleps usually grow in cooler waters  
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.
142. Consider the following statements  
1. Nasal turbinates are responsible for regulating heat and moisture exchange during respiration.  
2. Nasal turbinates are found only in warm-blooded creatures.  
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
143. Hubble constant which is recently seen in news related to  
(a) a way to determine the rate of expansion of the universe  
(b) a technique used for flood control.  
(c) calculating distances of far away stars.  
(d) collection of evidence gathered on ways to conserve mammal species.
144. Consider the following statements regarding Copper Age  
1. It is a transitional period in human prehistory between the Neolithic period and the Bronze Age.  
2. The people of this age started doing animal husbandry and agriculture.

3. This culture was mainly seen in Pre-Harappan phase  
Select the correct answer using the code given below:  
(a) Only one statement is true.  
(b) Only Two statements are true.  
(c) All three statements are true.  
(d) None of the statements are true.
145. Kalagarh Tiger Reserve (KTR) which is recently seen in news is located in  
(a) Rajasthan  
(b) Uttarakhand  
(c) Madhya Pradesh  
(d) Maharashtra
146. Consider the following statements regarding Abaucin  
1. Abaucin is a compound that shows useful activity as a broad spectrum antibiotic.  
2. It disrupts the normal function of the CCR2 protein in bacteria.  
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.
147. Consider the following statements regarding Silver cockscomb  
1. Silver cockscomb are native to India.  
2. It suppress the growth of other crops.  
3. Its belongs to the Amaranthaceae family  
(which includes spinach)  
Select the correct answer using the code given below:  
(a) Only one statement is true.  
(b) Only Two statements are true.  
(c) All three statements are true.  
(d) None of the statements are true.
148. Soligas are an indigenous tribe of  
(a) Karnataka  
(b) Telangana  
(c) Andhra Pradesh  
(d) Odisha
149. Gita Rhasya is book written by  
(a) Rabindranath Tagore  
(b) Sri Aurobindo  
(c) Bal Gangadhar Tilak  
(d) Sarojini Naidu
150. Consider the following statements regarding Samrat Mihir Bhoj  
1. Samrat Mihir Bhoj was a 9th-century ruler in Maharashtra  
2. He belongs to Pratihara Dynasty.  
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.

**ANSWERS**

1.	b	<p><b>Pilibhit Tiger Reserve:</b></p> <ul style="list-style-type: none"> <li>● <b>Location:</b> <ul style="list-style-type: none"> <li>○ It is located in <b>Pilibhit District</b>, Lakhimpur Kheri District and Bahraich District of <b>Uttar Pradesh</b>.</li> <li>○ It lies <b>along the India-Nepal border in the foothills of the Himalayas</b> and the <b>plains of the 'terai' in Uttar Pradesh</b>.</li> </ul> </li> <li>● It was declared a <b>Tiger Reserve in September 2008</b>.</li> <li>● <b>Drainage:</b> The <b>river Gomti originates</b> from the reserve, which is also the <b>catchment of several others like Sharda, Chuka and Mala Khannot</b>.</li> <li>● The <b>Sharda Sagar Dam</b> extending up to a length of 22 km (14 mi) <b>is on the boundary of the reserve</b>.</li> <li>● <b>Habitat:</b> It is <b>characterized by sal forests, tall grasslands and swamps</b>, maintained by periodic flooding from rivers.</li> <li>● <b>Vegetation: North Indian moist deciduous type.</b></li> <li>● <b>Flora:</b> <ul style="list-style-type: none"> <li>○ The <b>sal woodland is very dense</b> with good natural regeneration, amounting to <b>almost 76% of the reserve area</b>.</li> <li>○ The <b>forest patches are interspersed with grass meadows</b> with <b>several species like Sacchrum, Sclerostachya</b>, Imperata, Themeda, Bothriochloa, Vetiveria, Apluda, Dichanthium, Digitaria and Cyperus.</li> </ul> </li> <li>● <b>Fauna:</b> It is home to a myriad of wild animals including the <b>endangered tiger, swamp deer, Bengal florican, hog deer, leopard, etc.</b></li> </ul>
2.	b	
3.	c	
4.	b	
5.	d	
6.	b	
7.	a	<p><b>PEN Pinter Prize:</b></p> <ul style="list-style-type: none"> <li>● It was established in 2009 in memory of Nobel-Laureate playwright <b>Harold Pinter</b>.</li> <li>● The winner must be the <b>author of a significant body of plays, poetry, essays, or fiction of outstanding literary merit, written in English</b>.</li> <li>● It is given to a <b>writer from the UK, Ireland and the Commonwealth</b> whose work is committed to a fearless</li> </ul>

		<p>exposition of truth about contemporary life.</p> <ul style="list-style-type: none"> <li>• The prize is <b>shared with</b> an <b>international writer of courage</b> selected by English PEN's Writers at Risk Committee in association with the winner.</li> <li>• This half of the prize is awarded to someone who has been persecuted for speaking out about their beliefs.</li> <li>• Some of the previous award-winning writers are Malorie Blackman(2022), Tsitsi Dangarembga (2021) Hanif Kureishi (2010), Salman Rushdie (2014), and Lemn Sissay (2019).</li> </ul>
8.	d	
9.	c	
10.	a	
11.	a	<p>The Higgs boson interacts with all the other elements that have mass. And so dark matter must [also] have mass in order to fulfill the effect that we see in the galaxies It is known as God particle. <a href="https://indianexpress.com/article/explained/explained-sci-tech/what-dark-matter-explained-8694717/">https://indianexpress.com/article/explained/explained-sci-tech/what-dark-matter-explained-8694717/</a></p>
12.	c	<ul style="list-style-type: none"> <li>• The <b>post of Deputy Chief Minister in India is not a constitutional one</b>, but a political arrangement to appease allies or factions within a party.</li> <li>• The Deputy CM is <b>equivalent to a Cabinet Minister in terms of rank and perks but does not have any specific financial or administrative powers.</b></li> <li>• The Deputy CM has to report to the Chief Minister and seek his or her approval for any decision related to his or her portfolio.</li> <li>• The Deputy CM does not have access to the files or matters that are meant for the Chief Minister.</li> </ul> <p><b>Appointment and removal</b></p> <ul style="list-style-type: none"> <li>• The <b>appointment and removal of a deputy chief minister is entirely at the discretion of the chief minister.</b></li> <li>• The chief minister may appoint more than one deputy chief minister, as is the case in some states like Uttar Pradesh.</li> <li>• The chief minister may also reshuffle or drop a deputy chief minister at any time, as per their political calculations.</li> <li>• As of 22 May 2023, 11 out of the 28 states have deputy chief ministers.</li> </ul>
13.	c	
14.	c	<p><i>Indian Road Congress</i></p> <ul style="list-style-type: none"> <li>• Indian Road Congress (IRC) is the apex body of highway engineers in the country. The IRC was established in December</li> </ul>

		<p>1934 on the recommendations of the Indian Road Development Committee, popularly known as the Jayakar Committee, set up by the government. Its aim is to develop roads in India.</p> <ul style="list-style-type: none"> <li>• The IRC was formally registered as a society under the Societies Registration Act, 1860 on September 24, 1937.</li> <li>• Established in 1934 with 73 members, the IRC currently has over 50 lakh affiliates (direct/indirect) and over 17,300 registered members, including central and state governments, public sector, research institutes, local bodies, private sector, recipients Engineers and practitioners from all stakeholders of the road sector from multilateral and institutional organizations such as contractors, consultants, equipment manufacturers, machinery manufacturers, material manufacturers and suppliers, industrial associations, World Bank, ADB, JICA, JRA, IRF etc.</li> </ul>
15.	c	<p><b>Chloride levels posing risk to housing in NCR, experts call for relook of building norms</b></p> <ul style="list-style-type: none"> <li>• While the quality of raw materials, such as cement, steel bars, sand and bricks etc., is vital for residential construction, that of water is often overlooked. However, a report published in early June by the Indian Institute of Technology (IIT), Delhi, has raised concerns over the standard of water used in the National Capital Region.</li> <li>• In its report, the Department of Civil Engineering, IIT Delhi, said it found chloride in the concrete, noting this could have happened due to “the presence of chloride in water or aggregate used in concrete”.</li> <li>• Chloride, when in contact with water, leads to initiation of corrosion of embedded steel reinforcement</li> </ul> <p><i>Living dangerously</i> In February 2022, two women were killed when a sixth-floor apartment in an 18-storey tower of Chintels Paradiso housing society in Gurugram Sector 109 collapsed and the debris fell down to the first floor. The district administration set up a committee to table a report, which found that the affected tower was unsafe for inhabitation and unfeasible for any repair due to the high chloride levels in the concrete.</p> <p><i>Chloride in Drinking Water</i></p> <ul style="list-style-type: none"> <li>• Chloride is a naturally occurring element that is common in most natural waters and is most often found as a component of salt (sodium chloride) or in some cases in combination with potassium or calcium.</li> <li>• The presence of chloride in groundwater can result from a number of sources including the weathering of soils, salt-bearing geological formations, deposition of salt spray, salt used for road de-icing, contributions from wastewaters and in coastal areas, intrusion of salty ocean water into fresh groundwater</li> </ul>



		<p>sources.</p> <ul style="list-style-type: none"> <li>● In PEI, chloride levels in groundwater are relatively usually fairly low, but can become elevated in areas near the coast, or in areas of heavy salting of roads.</li> </ul> <p><i>What are the health concerns</i></p> <ul style="list-style-type: none"> <li>● Chloride is considered to be an essential nutrient for human health and the main source of chloride is from foods, with drinking water making up only a small portion of normal dietary intake.</li> <li>● Chloride in drinking water is not harmful, and most concerns are related to the frequent association of high chloride levels with elevated sodium levels. The drinking water guideline for chloride levels of 250 mg/L</li> </ul>
16.	a	<p><b>Simplex Mode</b> <b>Simplex mode</b> is a transmission mode in which information is sent in one direction only, also known as <b>unidirectional</b>. This means that information is only sent by one device through the channel and not both. One is only the sender and the other is only the receiver.</p> <p><b>Examples</b> Real-life examples of this communication mode include:</p> <ul style="list-style-type: none"> <li>● Radio broadcasting</li> <li>● Television broadcasting</li> <li>● Computer to printer</li> <li>● Monitor output</li> <li>● Mouse/keyboard/joystick to computer</li> <li>● Fire alarm system</li> <li>● Loud speaker</li> </ul> <p><b>Half-Duplex Mode</b> In <b>half-duplex mode</b>, both communication ends can transmit data, but not at the same time. This means that while one device is sending, the other device can only receive, and vice versa.</p> <p><b>Examples</b> Real-life examples of half-duplex communication include:</p> <ul style="list-style-type: none"> <li>● A walkie-talkie</li> <li>● A two-way radio that has a push-to-talk button</li> <li>● Browsing the internet (requests and responses)</li> <li>● Universal Serial Bus (USB)</li> </ul> <p><b>Full Duplex Mode</b> allows the communicating devices to transfer information simultaneously. Unlike half-duplex, one of the devices does not have to wait for the other before replying. This means there is no delay in communication.</p> <p><b>Examples</b> Some real-life examples of full duplex communication include:</p> <ul style="list-style-type: none"> <li>● Video calls/video conferencing</li> </ul>

		<ul style="list-style-type: none"> <li>• Audio calls</li> <li>• Live chats</li> </ul>
17.	b	<p><b>Bharhut Sculptures</b></p> <ul style="list-style-type: none"> <li>• The sculptures here are tall like the images of <b>Yaksha and Yakshini in the Mauryan period.</b></li> <li>• In the relief panels depicting narratives, illusion of three-dimensionality is shown with tilted perspective</li> <li>• At Bharhut, narrative panels are shown with fewer characters but as the time progresses, apart from the main character in the story, others also start appearing in the picture space.</li> <li>• Availability of the space is utilized to the maximum by the sculptors. Folded hands in the narratives as well as single figures of the <b>Yakhshas and Yakshinis</b> are shown flat clinging to the chest.</li> <li>• There is a general stiffness in the body and arms. But gradually, such visual appearance was modified by making images with deep carvings, pronounced volume and a very naturalistic representation of human and animal bodies. Sculptures at <b>Bharhut, Bodhgaya, Sanchi Stupa-2, and Jagayyapetta are good examples.</b></li> <li>• Narrative reliefs at Bharhut show how artisans used the pictorial language very effectively to communicate stories. In one such narrative. <b>Ex:</b> Queen Mayadevi's (mother of Siddhartha Gautama) dream, a descending elephant is shown</li> <li>• One main characteristic in all the male images of <b>first-second centuries BCE of Bharhut sculptures is the knotted headgear</b></li> </ul> <p><b>Sanchi Sculptures</b></p> <ul style="list-style-type: none"> <li>• The next phase of sculptural development at Sanchi Stupa-1, Mathura, and Vengi in Andhra Pradesh (Guntur District) is noteworthy in the <b>stylistic progression</b></li> <li>• It has <b>four beautifully decorated toranas</b> depicting various events from the life of the Buddha and the <b>Jataka</b>. Sculptures depicting the normal life have also been depicted here.</li> <li>• Figure compositions are in high relief, filling up the entire space. <b>Depiction of posture gets naturalistic and there is no stiffness in the body</b></li> <li>• Heads have considerable projection in the picture space. <b>Rigidity in the contours gets reduced and images are given movement</b></li> <li>• <b>Carving techniques appear more advanced than Bharhut.</b> Symbols continue to be used representing the Buddha and the Manushi Buddhas or the past Buddhas</li> <li>• The historical narratives such as the <b>siege of Kushinara, Buddha's visit to Kapilavastu, visit of Ashoka to the Ramgrama Stupa are carved with considerable details</b></li> </ul>

### **Gandhara School of Sculpture**

- The sculptures tradition of Gandhara was influenced by traditions of Bactria, Parthia and local region. It flourished largely during the Kushan dynasty in the North-West frontier of the country. They used Grey/bluish grey sandstone. Buddhism was the main inspiration behind many of the sculptures.

*Features of the Gandhara sculptures:*

1. **Spiritual Buddha** – there is a sense of calmness in the depiction of Buddha. **Less ornaments on Buddha**. Buddha has been depicted with **wavy hair**. **Large forehead** and eyes appear to be closed. The **seated Buddha** is always shown **cross-legged in the traditional Indian way**. The **Buddha and Bodhisattva figures** resemble the Greek God Apollo with broad shoulders, a halo around the head. The physical features such as **muscles, nails, hair have been done with great detail.**

### **Mathura School of Sculpture**

- **Spotted sandstone** was the preferred medium for depiction of sculptures.
- There was outside influence of the traditions of Mathura school of sculptures.
- All 3 religions – **Jainism, Buddhism, Hinduism** were depicted in Mathura style.
- This school was patronized by **Kushana rulers**.
- The local sculptural tradition at Mathura became so strong that the tradition spread to other parts of northern India.

*Salient features of this school of sculpture:*

- The Buddha image at Mathura is modeled on the lines of earlier Yaksha images whereas in Gandhara it has Hellenistic features.
- It may be noted that the images of Vishnu and Shiva are represented by their **ayudhas (weapons)**.
- There is boldness in carving the large images, the volume of the images is projected out of the picture plane, the faces are round and smiling, heaviness in the sculptural volume is reduced to relaxed flesh.
- The garments of the body are clearly visible and they cover the left shoulder.
- Images of the **Buddha, Yakshas, Yakshinis, Shaivite and Vaishnavite deities** and portrait statues are profusely sculpted.
- In the second century CE, images in Mathura get **sensual, rotundity increases, they become fleshier.**
- In the third century CE, treatment of sculptural volume changes by **reducing the extreme fleshiness, movement in the posture is shown by increasing distance** between the two legs as well as by using bends in the body posture.
- Softness in the surface continues to get refined.
- Transparent quality in the robes of the Buddha images is

		<p>evident</p> <ul style="list-style-type: none"> <li>• Halo around the head is profusely decorated</li> </ul> <p><b>Amaravati School of Sculpture</b></p> <ul style="list-style-type: none"> <li>• A Buddhist relic, having features belonging to <b>Amaravati school of Art</b> was unearthed by a group of Indologists on the banks of <b>River Gundlakamma in Andhra Pradesh.</b></li> <li>• This form of art originated in the area of <b>Amaravati, AP.</b></li> <li>• It was patronized by the <b>Satavahanas and later by the Ikshavaku</b></li> <li>• Prominent places where this style developed are <b>Amravati, Nagarjunikonda, Goli, Ghantasala and Vengi.</b></li> </ul> <p>Features of this form of sculpture:</p> <ol style="list-style-type: none"> <li>1. The material used in Amaravati art is <b>White marble</b> Sculptures were carved in a naturalistic manner. <b>Ex:</b> 'taming of an elephant by the Buddha'. <b>Reflects narratives theme</b> based on life of Buddha and Jataka stories Buddha is depicted <b>both in human as well as in animal form</b> Both <b>religious and secular images</b> were present in this style. The Amaravati style is <b>more elegant and sophisticated.</b> The sculptured panels of Amaravati are characterised by <b>delicacy of forms and linear grace.</b> Numerous scenes of <b>dance and music adorn</b> these reliefs displaying the joy of life.</li> </ol> <p><a href="https://www.thehindu.com/news/cities/Tiruchirapalli/buddha-statue-found-at-keezha-pazhayarai/article67036837.ece">https://www.thehindu.com/news/cities/Tiruchirapalli/buddha-statue-found-at-keezha-pazhayarai/article67036837.ece</a></p>						
18.	a	<ol style="list-style-type: none"> <li>1. Gujjars are pastoral community native to J&amp;K and listed as ST's in J&amp;K.</li> <li>2. They are known for their <i>morel</i> hunting skills.</li> </ol> <p><a href="https://www.downtoearth.org.in/news/climate-change/impact-of-climate-change-on-kashmir-s-mushroom-pickers-90344">https://www.downtoearth.org.in/news/climate-change/impact-of-climate-change-on-kashmir-s-mushroom-pickers-90344</a></p>						
19.	a	<p>Sturgeons are ancient migratory fish and are considered the world's most endangered species.</p> <p><a href="https://www.downtoearth.org.in/news/wildlife-biodiversity/poaching-biggest-threat-to-sturgeon-species-in-danube-337-illegal-activities-in-7-years-report-90370">https://www.downtoearth.org.in/news/wildlife-biodiversity/poaching-biggest-threat-to-sturgeon-species-in-danube-337-illegal-activities-in-7-years-report-90370</a></p>						
20.	c	<table border="0"> <thead> <tr> <th><b>States and UTs</b></th> <th><b>Major Festivals</b></th> </tr> </thead> <tbody> <tr> <td>Andhra Pradesh</td> <td>Makar Sankranti, Ugadi</td> </tr> <tr> <td>Arunachal Pradesh</td> <td>Losar, Solang,</td> </tr> </tbody> </table>	<b>States and UTs</b>	<b>Major Festivals</b>	Andhra Pradesh	Makar Sankranti, Ugadi	Arunachal Pradesh	Losar, Solang,
<b>States and UTs</b>	<b>Major Festivals</b>							
Andhra Pradesh	Makar Sankranti, Ugadi							
Arunachal Pradesh	Losar, Solang,							

		Mopin, Monpa festival
	Assam	Bihu
	Bihar	Chhath Puja
	Chhattisgarh	Maghi Purnima, Bastar Dussehra
	Goa	Shigmo Mel
	Gujarat	Navaratra, Uttarayan (International Kite Festival)
	Haryana	Baisakhi, Gugga Naumi
	Himachal Pradesh	Gochi, Kullu Dussehra
	Jammu & Kashmir	Bahu Mela
	Jharkhand	Sarhul, Karam/ Karma
	Karnataka	Karaga
	Kerala	Onam, Adoor Gajamela
	Madhya Pradesh	Lokrang Festival
	Maharashtra	Ganesh Chaturthi
	Manipur	Yaosang, Cheiraoba, Heikru

		<p>Hitongba</p> <p>Meghalaya Nongkrem Festival</p> <p>Mizoram Chapchar Kut,</p> <p>Nagaland Hornbill festival, Moatsu, Minkut</p> <p>Odisha Rath Yatra</p> <p>Punjab Lohri, Baisakhi</p> <p>Rajasthan Gangaur, Teej</p> <p>Sikkim Sakewa, Tendong Lho Rum Faat</p> <p>Tamil Nadu Pongal</p> <p>Telangana Bathukamma</p> <p>Tripura Kharchi Puja, Neermahal Festival</p> <p>Uttar Pradesh Ram Navmi, Kumbh Mela</p> <p>Uttarakhand Magh Mela</p> <p>West Bengal Durga Puja</p>
21.	c	<p><i>Metallurgical coke</i></p> <ul style="list-style-type: none"> <li>It is a carbonaceous material produced by <b>heating bituminous coal in the absence of air.</b></li> <li>It is produced by heating coal in coke ovens at high temperatures (around 1,000 to 1,200 degrees Celsius).</li> </ul>



		<ul style="list-style-type: none"> <li>It is used as a fuel and reducing agent in the <b>production of iron and steel.</b></li> <li><b>Properties</b> <ul style="list-style-type: none"> <li>It has an <b>open, porous structure</b> and may appear glassy in some varieties.</li> <li>It has also a low volatile content or rather low waste product content due to the heat treatment process received.</li> <li>It has a high <b>carbon content, low ash content, and high strength.</b></li> <li>Its porous structure allows for good gas flow and provides structural support in the blast furnace.</li> </ul> </li> <li>However, the “ash” constituents, that were part of the original bituminous coal feedstock, remain intact in the finished product.</li> <li>Met Coke is available in a wide range of sizes; from fine powder (30 mm) to basketball-sized lumps (20 cm).</li> </ul>
22.	a	<p><b>Scotland's iconic Orkney Islands considering quitting Britain to become part of Norway</b></p> <p><i>Orkney Islands</i></p> <ul style="list-style-type: none"> <li>It is an archipelago consisting of 70 individual islands, of which only 20 are inhabited.</li> <li>The Orkney Islands can be found roughly 10 miles off the <b>north coast of Scotland.</b></li> <li>The islands have been inhabited since <b>prehistoric times</b> and are home to numerous archaeological sites, including Neolithic stone circles, chambered tombs (such as Maeshowe).</li> <li>The four monuments that <b>make up the Heart of Neolithic Orkney</b> are unquestionably among the most important Neolithic sites in Western Europe.</li> <li>These are the Ring of Brodgar, Stones of Stenness, Maeshowe and Skara Brae.</li> <li>Heart of Neolithic Orkney is designated as <b>UNESCO world Heritage site.</b></li> </ul> <p><i>Archipelago</i></p> <ul style="list-style-type: none"> <li>An archipelago is a term used to <b>describe a group or chain of islands</b> that are closely scattered in a body of water, such as a sea, ocean, lake, or river.</li> <li>These islands are typically <b>formed through geological processes</b> such as volcanic activity, tectonic movements, or the accumulation of sediment.</li> </ul>
23.	b	
24.	c	
25.	c	

26.	a	<p>This Explanation</p> <ul style="list-style-type: none"> <li>• A National park is an area which is strictly reserved for the betterment of the wildlife and where human activities like forestry, grazing or cultivation are not permitted". A National Park is defined by state government via notification. The state government can fix and alter boundaries of the National Parks with prior consultation and approval with National Board of Wildlife.</li> <li>• Jim Corbett National Park: Established in 1936, this is India's first national park. It is named after the legendary naturalist and conservationist Jim Corbett. Located at the Himalayas' foothills (Uttarakhand), near the popular hill-station of Nainital, it is famous for being home to a large number of tigers, the highest among any Indian national park. The park is spread over the picturesque landscapes of Pauri Garhwal, Almora, and Nainital.</li> </ul>
27.	a	<p>This Explanation</p> <p>Snow and ice formed over lakes and rivers contain large doses of sulphuric acid. In spring when the snow melts and enters lakes and rivers, this sulphuric acid is released into the water bodies making them highly acidic. This condition is commonly referred to as "Spring Shock" or "Acid Shock".</p>
28.	b	<p>This Explanation</p> <ul style="list-style-type: none"> <li>• A monsoon is a seasonal change in the direction of the prevailing, or strongest, winds of a region. Monsoons cause wet and dry seasons throughout much of the tropics. Monsoons always blow from cold to warm regions.</li> <li>• Winter monsoons last from October to April. The dry winter monsoon blows from the northeast. These winds start in the air above Mongolia and northwestern China.</li> </ul>
29.	d	
30.	d	<p>This Explanation</p> <p>Aerosols are defined as the small substances that are suspended in the atmosphere. For examples fog , mist, dust, forest exudates etc are the natural aerosols that remain suspended in the air. Where smoke is an example for man made or anthropogenic aerosols. Jet planes emit gases like sulphur dioxide, nitrogen oxides, hydrocarbons, lead, water</p>

		vapour, and the black carbon.
31.	c	This Explanation Phosphorus cycle is an example of sedimentary cycle. Greatest reservoir of phosphate in the world is relatively insoluble ferric and calcium phosphate in rocks. Cyclic pool is soil for terrestrial ecosystems(lithosphere) and water for aquatic ecosystem(hydrosphere). Phosphate circulates in the abiotic environment in lithosphere as well as hydrosphere. Atmosphere or gaseous cycle is absent.
32.	a	This Explanation The World Bank The World Bank Group consists of five international organizations namely, the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), the International Finance Corporation (IFC), the Multilateral Investment Guarantee Agency (MIGA), and the International Centre for Settlement of Investment Disputes (ICSID).
33.	a	
34.	b	
35.	a	
36.	c	
37.	b	
38.	b	
39.	a	
40.	d	
41.	a	
42.	b	
43.	b	
44.	b	
45.	c	
46.	a	<b>T.N. Forest Department steps up vigil around Mukurthi National Park in Nilgiris to curb poaching</b> <i>Mukurthi National Park</i> • <b>Location:</b>

		<ul style="list-style-type: none"> <li>○ It lies in the <b>western corner of Nilgiris Plateau</b> in the state of <b>Tamil Nadu</b>.</li> <li>○ The park is a <b>part of the Nilgiri Biosphere Reserve</b>. It is <b>sandwiched between</b> the <b>Mudumalai National Park</b> and the <b>Silent Valley National Park</b>.</li> <li>● The area was declared as a wildlife sanctuary in 1982 and <b>upgraded to a National Park in 1990</b>.</li> <li>● It was established with the <b>prime motive of conserving its keystone species – the Nilgiri Tahr</b>.</li> <li>● It is a <b>UNESCO World Heritage Site</b> and was <b>formerly known as Nilgiri Tahr National Park</b>.</li> <li>● It is also <b>home to Mukurthi Peak (2,554m)</b>, the fourth highest peak in the Nilgiri Hills.</li> <li>● <b>Rivers: Pykara and Kundah rivers</b> flow through the park along with several perennial streams that originate in the park and drain into the Bhavani Puzha.</li> <li>● <b>Vegetation:</b> <ul style="list-style-type: none"> <li>○ The majority of the landscape in the reserve is <b>covered with shrubs and mountainous grasslands</b>.</li> <li>○ <b>The area</b> in the National Park which are <b>at an elevation</b> and experience high rainfall <b>are covered with sholas and lush green tropical grasslands</b>.</li> </ul> </li> <li>● <b>Flora:</b> <ul style="list-style-type: none"> <li>○ <b>Along sholas, shrubs like Gaultheria fragrantissima, Helichrysum</b> and Berberis tinctoria are found.</li> <li>○ Other plants which can be seen here are <b>Rhododendrons, Cinnamon, Mahonia, Satyrium, Raspberries</b> etc.</li> </ul> </li> <li>● <b>Fauna:</b> The park houses some of the <b>endangered wild species like Nilgiri tahr, Indian elephants, Nilgiri Langur, Bengal tiger and bonnet macaque</b>.</li> </ul>
47.	c	<p>Prime Minister Narendra Modi travelled to Tokyo to attend the Quad Summit, he carried with him gifts for leaders of the US, Australia and Japan showcasing India's rich cultural heritage and art forms.</p> <p>— The intricate sanjhi panel that PM Modi gave US President Joe Biden is based on the theme of Thakurani Ghat, which is one of the most famous ghats on the banks of the holy river of Yamuna in Gokul.</p> <p>— The traditional art form that originated out of the cult of Krishna.</p> <p>— It involves creating stencils based on incidents from the life of the deity and then hand-cutting these on thin sheets of paper using scissors.</p> <p>— In olden times, stencils were made using rough paper or banana leaves, but now this has changed to handmade and recycled paper.</p>
48.	d	<ul style="list-style-type: none"> <li>● The Jhelum joins the Chenab near Jhang in Pakistan. The Ravi joins the Chenab near Sarai Sidhu.</li> <li>● Satluj is joined by the Chenab in Pakistan. Thus, Satluj receives</li> </ul>

		<p>the collective drainage of the Ravi, Chenab, and Jhelum rivers. It joins the Indus a few kilometers above Mithankot.</p> <ul style="list-style-type: none"> <li>Therefore, option (d) is the correct answer.</li> </ul>
49.	c	
50.	d	
51.	c	<p>International Union for Protection of New Plant Varieties (UPOV Convention)</p> <ul style="list-style-type: none"> <li>The International Union for the Protection of New Varieties of Plants (UPOV) is an intergovernmental organization with headquarters in Geneva (Switzerland).</li> <li>UPOV was established by the International Convention for the Protection of New Varieties of Plants. The <b>Convention was adopted in Paris in 1961</b> and it was revised in 1972, 1978 and 1991.</li> <li>UPOV's <b>mission is to provide and promote an effective system of plant variety protection, with the aim of encouraging the development of new varieties of plants</b>, for the benefit of society.</li> <li>The UPOV Convention provides the basis for members to encourage plant breeding by granting breeders of new plant varieties an intellectual property right: <b>the breeder's right</b>.</li> <li>In the case of a variety protected by a breeder's right, the <b>authorization of the breeder is required to propagate the variety for commercial purposes. The breeder's right is granted by the individual UPOV members.</b></li> <li>Only the breeder of a new plant variety can protect that new plant variety. It is <b>not permitted for someone other than the breeder to obtain protection of a variety</b>.</li> <li>There are <b>no restrictions on who can be considered to be a breeder</b> under the UPOV system: a breeder might be an individual, a farmer, a researcher, a public institute, a private company etc.</li> <li><b>India is not a member.</b></li> </ul>
52.	c	<ul style="list-style-type: none"> <li><b>Desalination Plants:</b> <ul style="list-style-type: none"> <li>A <b>desalination plant</b> turns salt water into water that is fit to drink.                             <ul style="list-style-type: none"> <li><b>Desalination</b> is the process of <b>removing salts from water</b> to produce water that meets the quality (salinity) requirements of different human uses.</li> </ul> </li> <li>Most commonly used <b>technology</b> for the process is <b>reverse osmosis</b>.                             <ul style="list-style-type: none"> <li>An external pressure is applied to push solvents from an area of high-solute concentration to an</li> </ul> </li> </ul> </li> </ul>

area of low-solute concentration through a semi-permeable membrane.

- The **microscopic pores** in the membranes allow water molecules through but leave salt and most other impurities behind, releasing clean water from the other side.
- These plants are mostly set up in areas that have access to **sea water**.
- **Advantage of Desalination Plants:**
  - It can extend water supplies beyond what is available from the **hydrological cycle**, providing an **“unlimited”**, **climate-independent** and **steady supply** of high-quality water.
  - It can **provide drinking water** in areas where no natural supply of potable water exists.
  - As it generally **meets or exceeds** standards for **water quality**, water desalination plants can also **reduce pressure on freshwater supplies** that come from **areas** (over exploited water resources) that need protecting.
- **Disadvantage of Desalination Plants:**
  - **Costly to build and operate** desalination plants as the plants require huge amounts of energy.
    - **Energy costs** account for **one-third to one-half of the total cost** of producing desalinated water.
    - Because energy is such a large portion of the total cost, the **cost is also greatly affected by changes in the price of energy**.
  - **The environmental impact** is another disadvantage to water desalination plants. Disposal of the salt removed from the water is a major issue.
    - This discharge, known as **brine**, can change the salinity and lower the amount of oxygen (**Hypoxia**) in the water at the disposal site, stressing or killing animals not used to the higher levels of salt.
    - In addition, the desalination process **uses or produces numerous chemicals including chlorine, carbon dioxide, hydrochloric acid and anti-scalents** that can be **harmful in high concentrations**.
- **Opportunities:** The environmental problem can be changed into an economic opportunity as:
  - The **discharge (brine)** can also contain **precious elements like uranium, strontium as well as sodium and magnesium** which have the potential to be mined.
  - **Brine** has been used for **aquaculture**, with **increases in fish biomass of 300%**. It has also been successfully used to cultivate the **dietary supplement Spirulina**, and to



		<p>irrigate forage shrubs and crops.</p> <ul style="list-style-type: none"> <li>● <b>Use of Desalination Plants in India:</b> <ul style="list-style-type: none"> <li>○ It has largely been limited to countries in the <b>Middle East</b> and has recently started being used in parts of the <b>United States and Australia.</b></li> <li>○ In India, <b>Tamil Nadu</b> has been the pioneer in using this technology, setting up two desalination plants near <b>Chennai in 2010 and then 2013.</b></li> <li>○ The other states that have proposed these plants are <b>Gujarat and Andhra Pradesh.</b></li> </ul> </li> </ul>
53.	c	<p><b>Lambani art</b> It is a <b>traditional form of art and craft practised by the Lambani community</b>, also known as the Banjara community in Karnataka. It is characterized by its <b>vibrant colours, intricate embroidery, and mirror work.</b> It has quilting stitches with borders of “<b>Kangura</b>” patchwork. Lambani art includes a wide range of products, such as clothing, textiles, accessories, home decor items, and jewellery. It received the status of Geographic Indication (GI) tag in 2010 from Karnataka.</p> <p><b>About Banjara Community:</b> The word ‘banjara’ is derived from <b>Vanaj meaning to trade, and Jara meaning to travel.</b> Banjara (sometimes called Gypsies) are <b>commercial nomads.</b> With roots in Rajasthan, Banjaras now live in several states and are known by different names like</p> <ul style="list-style-type: none"> <li>● Lambada or Lambadi in Andhra Pradesh</li> <li>● Lambani in Karnataka</li> <li>● Gwar or Gwaraiya in Rajasthan</li> </ul> <p><b>The language of Banjara</b> is known as “<b>Gorboli</b>” “<b>Gor mati Boli</b>” or “<b>Brinjari</b>” an independent dialect ( under the category of Indo-Aryan language)</p>
54.	a	<p><i>Guillain-Barre syndrome</i></p> <ul style="list-style-type: none"> <li>● It is a <b>rare autoimmune disorder</b> where the body's immune system mistakenly attacks the peripheral nerves.</li> <li>● It is more common in adults and males, but it can affect people of all ages.</li> <li>● <b>Symptoms</b> <ul style="list-style-type: none"> <li>○ The first symptoms of Guillain-Barré syndrome include <b>weakness or tingling sensations.</b> They usually start in the legs, and can spread to the arms and face.</li> <li>○ For some people, these symptoms can lead to paralysis of the legs, arms, or muscles in the face.</li> </ul> </li> <li>● <b>Causes</b> <ul style="list-style-type: none"> <li>○ It is often <b>preceded by an infection.</b></li> <li>○ This could be a bacterial or viral infection.</li> <li>○ The most frequently associated infections include <b>Campylobacter jejuni, Epstein-Barr virus (EBV),</b></li> </ul> </li> </ul>

		<p><b>cytomegalovirus (CMV)</b>, and the bacteria responsible for pneumonia and urinary tract infections.</p> <ul style="list-style-type: none"> <li>○ It may also be triggered by vaccine administration or surgery.</li> </ul> <ul style="list-style-type: none"> <li>● <b>Diagnosis</b> <ul style="list-style-type: none"> <li>○ There is no known cure for this syndrome.</li> <li>○ The most commonly used treatment is <b>intravenous immunoglobulin (IVIG)</b>, which is made from donated blood that contains healthy antibodies.</li> <li>○ This helps calm down the immune system's attack on the nerves.</li> </ul> </li> </ul>
55.	c	<p><b>Massive Strange Shelf Cloud Appears In Uttarakhand's Haridwar Amid Shelf Cloud</b></p> <ul style="list-style-type: none"> <li>● A “shelf cloud” or “<b>Arcus cloud</b>” generally <b>forms along the leading edge of thunderstorms.</b></li> <li>● It is a <b>type of low-lying, horizontal cloud formation</b> characterized by a <b>clearly defined line of solid clouds.</b></li> <li>● It is <b>known for its distinctive wedge-shaped formation.</b> They usually <b>appear as a broad arc across the sky</b> that can <b>sometimes appear to be rotating horizontally.</b></li> <li>● <b>Formation:</b> <ul style="list-style-type: none"> <li>○ Shelf clouds <b>form when cold and dense air is forced into a warmer air mass by wind.</b></li> <li>○ This rush of cold air often <b>occurs in a thunderstorm's downdraught</b>, where <b>cold air rushes towards the ground before spreading out to create a gust front.</b></li> <li>○ Shelf clouds produced by thunderstorms are always <b>preceded by a rush of dry and cold air ahead of the cloud, with rain arriving after the shelf cloud has passed overhead.</b></li> </ul> </li> <li>● <b>Formation of Thunderstrom</b> <ul style="list-style-type: none"> <li>○ Thunderstorms <b>form when warm, moist air rises into cold air.</b></li> <li>○ The <b>warm air becomes cooler, which causes moisture, called water vapor, to form small water droplets — a process called condensation.</b></li> <li>○ The <b>cooled air drops lower in the atmosphere, warms, and rises again.</b></li> <li>○ <b>This circuit</b> of rising and falling air <b>is called a convection cell.</b></li> <li>○ If this happens a small amount, a cloud will form. <b>If this happens with large amounts of air and moisture, a thunderstorm can form.</b></li> </ul> </li> </ul>
56.	c	<p>In Ladakh Shingskos which is also known as <b>Ladakh Wood Carving</b>, various symbols in the temples are gradually used in excellent quality</p>

		<p>of furniture. — The product made by the Ladakh wood carving artisan is very specific with the multi-dimensional variety of products starting from Architecture of Gompas, Houses, Monastery, Wooden choktse tablets, Carvings of animals on wooden lintels, etc. — It has got Geographical Indication (GI) tag under section 13 of the Geographical Indications of Goods (Registration and Protection) Act, 1999.</p>
57.	a	<p><b>Rudreswara (Ramappa) Temple:</b></p> <ul style="list-style-type: none"> <li>• The Rudreswara temple was <b>constructed in 1213 AD during the reign of the Kakatiya Empire by Recherla Rudra</b>, a general of Kakatiya king Ganapati Deva.</li> <li>• The presiding deity here is <b>Ramalingeswara Swamy</b>.</li> <li>• It is also known as the <b>Ramappa temple, after the sculptor</b> who executed the work in the temple for 40 years.</li> <li>• The temple stands on a <b>6 feet high star-shaped platform</b> with walls, pillars and ceilings adorned with <b>intricate carvings</b> that attest to the unique skill of the Kakatiya sculptors.</li> <li>• The foundation is built with the <b>“sandbox technique”</b>, the flooring is granite and the pillars are basalt.</li> <li>• The <b>lower part of the temple is red sandstone</b> while the <b>white gopuram</b> is built with light bricks that reportedly float on water.</li> <li>• An inscription dates the temple to <b>1135 Samvat-Saka on the eight-day of Magha</b> (12 January, 1214).</li> </ul> <p>th</p> <ul style="list-style-type: none"> <li>• The distinct style of Kakatiyas for the gateways to temple complexes, unique only to this region, confirm the <b>highly evolved proportions of aesthetics in temple</b> and town gateways in South India.</li> <li>• European merchants and travellers were mesmerized by the beauty of the temple and one such traveller had remarked that the temple was the <b>"brightest star in the galaxy of medieval temples of the Deccan"</b>.</li> <li>• <b>Sandbox Technique:</b> <ul style="list-style-type: none"> <li>○ The technique involved filling the pit — <b>dug up for laying</b></li> </ul> </li> </ul>

		<p><b>the foundation</b> — with a mixture of <b>sand-lime, jaggery (for binding) and karakkaya</b> (black myrobalan fruit) before the buildings were constructed on these 'sandboxes'.</p> <ul style="list-style-type: none"> <li>○ The sandbox in the foundation acts as a <b>cushion in case of earthquakes</b>.</li> <li>○ Most of the vibrations caused by earthquakes lose their strength while passing through the sand by the time they reach the actual foundation of the building.</li> </ul>
58.	a	<p><i>Schengen Area</i></p> <ul style="list-style-type: none"> <li>● The Schengen Area, or Schengen Countries Zone, is a <b>group of 27 European nations</b> that have <b>abolished their internal borders</b>, for the <b>free and unrestricted movement of people</b>.</li> <li>● <b>Members</b> of this area include: <b>23 of the 27 EU member states</b> (except for Bulgaria, Cyprus, Ireland and Romania) and <b>all members of the European Free Trade Association</b> (Iceland, Liechtenstein, Norway and Switzerland).</li> <li>● <b>Switzerland, Iceland, and Norway are not in the EU but are inside of the Schengen Area.</b></li> <li>● <b>Being part of this area means that countries:</b> <ul style="list-style-type: none"> <li>○ <b>do not carry out checks at their internal borders</b>, except in cases of specific threats;</li> <li>○ <b>carry out harmonized controls at their external borders</b>, based on clearly defined criteria.</li> </ul> </li> </ul>
59.	d	<p><i>Periscope</i></p> <ul style="list-style-type: none"> <li>● It is an <b>optical instrument</b> used in land and sea warfare, submarine navigation, and elsewhere to <b>enable an observer to see his surroundings while remaining undercover, behind armor, or submerged</b>.</li> <li>● <b>Submarines have periscopes</b> so that people inside <b>can see what is on the surface of the water</b>.</li> <li>● <b>Construction and Working Principle:</b> <ul style="list-style-type: none"> <li>○ Periscopes can be <b>constructed using a pair of flat mirrors or prisms</b> and a <b>rectangular hollow tube that has a viewing window at the top and bottom of the tube</b>.</li> <li>○ The <b>mirrors</b> within this structure <b>are fixed at an angle of 45° at the two ends of the rectangular hollow</b>.</li> <li>○ A periscope is a useful <b>example of the law of reflection at work</b>. It's important that your <b>mirrors are placed at a 45° angle</b>, because <b>light always reflects away from a mirror at the same angle that it hits it</b>.</li> <li>○ <b>In a periscope, light from an object strikes the top mirror at 45° and bounces off at the same angle</b>.</li> <li>○ <b>This sends light directly down the tube and onto the lower mirror</b>. This mirror, <b>also at a 45° angle</b>, reflects</li> </ul> </li> </ul>

		<p><b>light directly to your eye.</b></p> <ul style="list-style-type: none"> <li>• A <b>simple periscope only requires mirrors</b>, whereas a <b>more complicated periscope utilizes prisms rather than mirrors.</b></li> <li>• The <b>periscopes used in submarine applications are complex</b>, typically requiring the use of tubes that are at least 10 meters in length to achieve a greater range of scope.</li> </ul>
60.	d	<p><b>SC concerned over lakhs of devotees visiting temple in Sariska Tiger Reserve, sets up panel to find solution</b></p> <ul style="list-style-type: none"> <li>• <b>Location:</b> It is located in the <b>Aravalli hills in the Alwar district of Rajasthan.</b></li> <li>• This area <b>was a hunting preserve of the erstwhile Alwar state.</b></li> <li>• It was declared as a wildlife reserve in 1955 and then a <b>Tiger Reserve in 1978 under Project Tiger.</b></li> <li>• It is the <b>first reserve in the world which successfully relocated tigers.</b></li> <li>• Sariska is also <b>famous for old temples, palaces and lakes</b> such as <b>Pandu Pol, Bhangarh Fort, Ajabgarh, Pratapgarh, Siliserh Lake and Jai-Samand Lake.</b></li> <li>• <b>Topography:</b> <b>Grasslands, dry deciduous forests, cliffs, and rocky landscapes.</b></li> <li>• <b>Flora:</b> <ul style="list-style-type: none"> <li>◦ Nearly <b>90% of the area</b> in the sanctuary is <b>covered with dhok trees.</b></li> <li>◦ Other species found include <b>salar, kadaya, gol, ber, Banyan, gugal, bamboo, kair, adusta</b> etc</li> </ul> </li> <li>• <b>Fauna:</b> A variety of other wild animals like the <b>leopard, sambhar, chital, nilgai, four-horned antelope, wild boar, rhesus macaque</b>, langur, hyena and jungle cats are found in the Sariska Tiger Reserve <b>apart from the tiger.</b></li> </ul>
61.	b	<p>Amphibians are cold-blooded vertebrate animals of a class that comprises frogs, toads, newts, salamanders, and caecilians. Most amphibian species have a life cycle that involves three stages, egg, larva, and adult. All amphibians start life as an egg in a ball of jelly. The eggs are laid in water.</p> <p>Unlike other tetrapod vertebrates (reptiles, birds, and mammals), amphibians do not produce amniotic eggs. Therefore, they must lay their eggs in water so they won't dry out.</p> <p>In order to absorb oxygen, the skin of an amphibian has to stay wet. They secrete mucous to keep the skin moist.</p> <p>Amphibians are considered indicator species because they are extremely sensitive to changes in the environment. Some of the threats they face are habitat loss, invasive species, pollution, infectious diseases, and climate change.</p>
62.	c	<p><b>Sun to reach Solar Maximum by 2025, likely to cause complete</b></p>

		<p><b>global internet outage</b> <i>Solar Maximum:</i></p> <ul style="list-style-type: none"> <li>• The sun goes through a natural <b>solar cycle approximately every 11 years</b>. The cycle is <b>marked by the increase and decrease of sunspots</b> - visible as dark blemishes on the sun's surface, or photosphere.</li> <li>• <b>The greatest number of sunspots in any given solar cycle is designated as "solar maximum." The lowest number is "solar minimum."</b></li> <li>• <b>Impacts:</b> <ul style="list-style-type: none"> <li>◦ This increased solar activity can <b>cause extreme space weather events</b>, including <b>solar flares</b> and eruptions.</li> <li>◦ It can also <b>disrupt radio communications and the power grid</b> and have serious health <b>consequences for astronauts</b>.</li> </ul> </li> </ul> <p><i>Solar Cycle</i></p> <ul style="list-style-type: none"> <li>• The <b>Sun is a huge ball of electrically-charged hot gas</b>. This charged gas moves, <b>generating a powerful magnetic field</b>.</li> <li>• <b>Every 11 years or so, the Sun's magnetic field completely flips</b>. This means that the Sun's <b>north and south poles switch places</b>.</li> <li>• Then it <b>takes about another 11 years</b> for the Sun's north and south poles <b>to flip back again</b>.</li> <li>• Thus, the solar cycle is the <b>cycle that the Sun's magnetic field goes through approximately every 11 years</b>.</li> <li>• The solar cycle <b>affects activity on the surface of the Sun, such as sunspots</b> which are caused by the Sun's magnetic fields.</li> <li>• As the magnetic fields change, so does the amount of activity on the Sun's surface.</li> <li>• The <b>beginning of a solar cycle is a solar minimum</b>, or when the Sun has the least sunspots. <b>Over time, solar activity—and the number of sunspots—increases</b>.</li> <li>• The <b>middle of the solar cycle is the solar maximum</b>, or when the Sun has the most sunspots.</li> <li>• <b>As the cycle ends, it fades back to the solar minimum and then a new cycle begins</b>.</li> </ul>
63.	c	<p><b>Army officers say Army faces challenges in Manipur without AFSPA</b> <i>Armed Forces (Special Powers) Act (AFSPA):</i></p> <ul style="list-style-type: none"> <li>• It is a law <b>enacted by the Parliament in 1958</b> which <b>gives armed forces</b> (Army, the Air Force and Central paramilitary forces) the <b>special powers and immunity to maintain public order in "disturbed areas"</b>.</li> <li>• <b>When is it applied?</b> It can be applied only <b>after an area has been declared "disturbed"</b> under section 2 of the act.</li> </ul>



		<ul style="list-style-type: none"> <li>• <b>What is a Disturbed area?</b> An area can be <b>considered to be disturbed due to differences or disputes among different religious, racial, language or regional groups or castes or communities.</b></li> <li>• <b>Who declares an area as disturbed?</b> Section (3) of AFSPA empowers the <b>governor of the state/Union territory to issue an official notification declaring</b> the state or a region within as a <b>“disturbed area”, after which the centre can decide whether to send in armed forces.</b></li> <li>• The <b>‘special powers’ of armed forces under Section 4 are:</b> <ul style="list-style-type: none"> <li>○ <b>Power to use force even to the extent of causing death,</b> destroy arms / ammunition dumps, fortifications/ shelters / hideouts.</li> <li>○ <b>Power to arrest without a warrant.</b></li> <li>○ <b>Power to seize and search’ without any warrant</b> any premise.</li> <li>○ It stipulates that <b>arrested persons and seized property is to be handed over to the nearest Police Station</b> with least possible delay.</li> <li>○ These <b>armed forces are immune from prosecution unless the Union Government provides sanction</b> to the prosecuting agencies.</li> </ul> </li> </ul>
64.	a	
65.	b	
66.	c	
67.	a	<p><b>Kaas Plateau:</b></p> <ul style="list-style-type: none"> <li>• It is nestled in <b>the Western Ghats</b> is about 140 km from Pune.</li> <li>• It is <b>part of the Western Ghats</b> which was declared as <b>world natural heritage</b> site by United Nations Educational, Scientific and Cultural Organisation (UNESCO) in 2012</li> <li>• It is known as Kaas Pathar in Marathi, its name is derived from the Kaasa tree, botanically known as <i>Elaeocarpus glandulosus</i> (rudraksha family).</li> <li>• It is also known as valley of flowers which is situated at a mighty altitude of 1200 metres.</li> <li>• It is a major <b>biodiversity hotspot</b> owing to the many varieties of endemic flowers and butterflies that are found here.</li> </ul>
68.	c	
69.	a	
70.	a	Lagrange Points are positions in space where the gravitational forces of a two body system like the Sun and the Earth produce enhanced

		<p>regions of attraction and repulsion. These can be used by spacecraft to reduce fuel consumption needed to remain in position.</p> <p>Lagrange points are named in honor of Italian-French mathematician Josephy-Louis Lagrange.</p> <p>There are five special points where a small mass can orbit in a constant pattern with two larger masses. The Lagrange Points are positions where the gravitational pull of two large masses precisely equals the centripetal force required for a small object to move with them. This mathematical problem, known as the "General Three-Body Problem" was considered by Lagrange in his prize winning paper (<i>Essai sur le Problème des Trois Corps</i>, 1772).</p> <p>Of the five Lagrange points, three are unstable and two are stable. The unstable Lagrange points - labeled L1, L2 and L3 - lie along the line connecting the two large masses. The stable Lagrange points - labeled L4 and L5 - form the apex of two equilateral triangles that have the large masses at their vertices. L4 leads the orbit of earth and L5 follows.</p>
71.	d	
72.	b	
73.	b	
74.	b	
75.	b	<p><i>Parkinson's Disease</i></p> <ul style="list-style-type: none"> <li>● It is a <b>progressive neurological disorder</b> that <b>affects the nervous system and the parts of the body controlled by the nerves.</b></li> <li>● It is a condition in which a <b>patient holds limited or no control over his movements</b> and body balance.</li> <li>● It <b>occurs and progresses with ageing</b>, but <b>in rare cases, it is also witnessed among children</b> and teenagers as well.</li> <li>● <b>Currently, there is no cure for Parkinson's disease.</b></li> <li>● Many studies have suggested that <b>men are more likely to be affected</b> by Parkinson's than women.</li> <li>● <b>Cause:</b> <ul style="list-style-type: none"> <li>○ Parkinson's disease is <b>caused by the degeneration of nerve cells</b> in the part of the brain called the substantia nigra, <b>which controls movement.</b></li> <li>○ These <b>nerve cells die or become impaired, losing the ability to produce</b> an important <b>chemical called dopamine.</b></li> <li>○ <b>Dopamine operates with other neurotransmitters to help coordinate the millions of nerve and muscle cells</b> involved in the movement.</li> </ul> </li> <li>● <b>Symptoms:</b></li> </ul>

		<ul style="list-style-type: none"> <li>○ <b>Tremors</b> (trembling in the hands, arms, legs, and jaw); rigidity (stiffness of the limbs); <b>slowness of movement; and impaired balance and coordination.</b></li> <li>○ Parkinson's patients may also experience <b>other symptoms such as difficulty in swallowing, chewing, and speaking, urinary problems</b>, constipation, skin problems, depression, emotional changes, and sleep disruption.</li> <li>● <b>Currently, no blood laboratory or radiological tests are available to diagnose</b> Parkinson's disease.</li> </ul>
76.	c	<p><i>AT1 bonds</i></p> <ul style="list-style-type: none"> <li>● These are a type of <b>unsecured, perpetual bonds</b> that banks issue to improve their core capital base.</li> <li>● The money raised through these bonds is kept aside as a <b>shock absorber</b> by the bank.</li> <li>● They <b>have a call option</b>, which can be used by the banks to buy these bonds back from investors.</li> <li>● These bonds were created in the wake of the 2008 financial crisis to absorb the losses.</li> <li>● These bonds are also called <b>contingent convertible bonds</b> or CoCos.</li> <li>● These bonds are also <b>mandatory under Basel=III norms.</b></li> <li>● The banks must maintain capital at a minimum <b>ratio of 11.5 per cent of their risk-weighted loans.</b> Of this, 9.5 per cent needs to be in Tier-1 capital. AT1 bonds fall under this type of capital.</li> <li>● These bonds are <b>long-term</b> and do not carry any maturity date. Because of a higher risk, they <b>offer a higher yield.</b></li> <li>● <b>Regulation:</b> In India AT-1 bonds are regulated by the <b>Reserve Bank of India (RBI).</b></li> </ul> <p><i>bonds</i></p> <ul style="list-style-type: none"> <li>● A bond is simply a <b>loan taken out</b> by a company.</li> <li>● Instead of going to a bank, the company gets the money from investors who buy its bonds.</li> <li>● In exchange for the capital, <b>the company pays an interest coupon</b>, which is the annual interest rate paid on a bond expressed as a percentage of the face value.</li> </ul>
77.	c	<p><i>Duchenne's Muscular Dystrophy</i></p> <ul style="list-style-type: none"> <li>● It is a rare <b>genetic disorder.</b></li> <li>● It was first described <b>by the French neurologist</b> Guillaume Benjamin Amand Duchenne in the 1860.</li> <li>● It is characterized by <b>progressive muscle degeneration and weakness</b> due to the alterations of a protein called dystrophin that helps keep muscle cells intact.</li> <li>● It is a <b>multi-systemic condition</b>, affecting many parts of the body, which results in deterioration of the skeletal, heart, and</li> </ul>

		<p>lung muscles.</p> <ul style="list-style-type: none"> <li>● The <b>dystrophin gene</b> is found on the <b>X-chromosome</b>, it <b>primarily affects males</b>, while females are typically carriers.</li> <li>● <b>Symptoms</b> <ul style="list-style-type: none"> <li>○ It can begin as early as age 2 or 3, <b>first affecting the proximal muscles</b> (those close to the core of the body) and later affecting the distal limb muscles (those close to the extremities).</li> <li>○ Usually, the lower external muscles are affected before the upper external muscles.</li> <li>○ The affected child might have difficulty jumping, running, and walking.</li> <li>○ Other symptoms include <b>enlargement of the calves, a waddling gait</b>, and lumbar lordosis (an inward curve of the spine).</li> <li>○ Later on, the heart and respiratory muscles are affected as well.</li> </ul> </li> <li>● <b>Treatments:</b> Presently available treatments are <b>gene therapy, exon skipping</b>, stop codon read-through and gene repair.</li> </ul>
78.	c	<p><i>Rubber Board</i></p> <ul style="list-style-type: none"> <li>● It is a <b>statutory organization</b> constituted under the <b>Rubber Act, 1947</b>.</li> <li>● It functions under the <b>administrative control of the Ministry of Commerce and Industry</b>.</li> <li>● <b>Functions:</b> <ul style="list-style-type: none"> <li>○ The Board is responsible for the <b>development of the rubber industry</b> in the country by <b>assisting and encouraging research, development, extension and training activities</b> related to rubber.</li> <li>○ It also <b>maintains statistical data of rubber</b>, takes <b>steps to promote marketing of rubber</b> and undertake <b>labour welfare activities</b>.</li> <li>○ <b>A crucial function</b> of the Rubber Board is <b>issuing licenses to rubber producers, manufacturers, and exporters/traders</b>. This license, <b>known as the "Rubber Board license/registration,"</b> is <b>mandatory for anyone involved in rubber manufacturing and export</b></li> </ul> </li> <li>● <b>Structure:</b> <ul style="list-style-type: none"> <li>○ The Board is <b>headed by a Chairman appointed by the Central Government</b>.</li> <li>○ It has <b>28 members representing various interests of the natural rubber industry</b>.</li> </ul> </li> <li>● <b>Headquarters: Kottayam, Kerala.</b></li> <li>● The activities of the Board are <b>exercised through Five Departments</b> viz. General Services, Extension &amp; Advisory Services, <b>Research Services (rubber Research Institute of</b></li> </ul>

		<b>India), Training (Rubber Training Institute) &amp; Finance.</b>
79.	a	<p><b>Maputo Protocol contributed towards Africa's progress on gender equality, but growth uneven: Report</b></p> <ul style="list-style-type: none"> <li>• There has been some progress on gender equality in African countries thanks to the Maputo Protocol, but it has been uneven, according to a new report. The Protocol is considered one of the world's most progressive legal frameworks for women's rights and was launched 20 years ago.</li> <li>• The Protocol has a target of universal ratification in Africa by 2028. However, with just five years until the target year, there are still 12 countries that are yet to ratify this important legal instrument.</li> <li>• This means that the women and girls in those countries do not have the same rights as the other women and girls on the continent</li> <li>• So, there is an urgent need for Botswana, Burundi, Central African Republic, Chad, Egypt, Eritrea, Madagascar, Morocco, Niger, Somalia and Sudan to renew their commitments and ratify the Maputo Protocol in order to deliver on their promises to the women and girls in their countries, read the report.</li> </ul> <p><i>Maputo Protocol</i></p> <ul style="list-style-type: none"> <li>• The Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa, <b>better known as the Maputo Protocol</b>, is an <b>international human rights instrument established by the African Union</b>.</li> </ul> <p><i>Adoption</i></p> <ul style="list-style-type: none"> <li>• It was <b>adopted by the African Union in Maputo, Mozambique, in 2003</b> in the form of a protocol to the African Charter on Human and Peoples' Rights (adopted in 1981, enacted in 1986). It <b>went into effect in 2005</b>.</li> </ul> <p><i>Ratification</i></p> <ul style="list-style-type: none"> <li>• Of the 55 member states, 44 have ratified or acceded to the Protocol on gender equality, becoming one of the most ratified instruments in the AU.</li> <li>• Full domestication of the Protocol provisions into the national legislature has, in many cases, been slow or ineffective. Some African States are <b>yet to ratify or accede to the Protocol</b>.</li> </ul> <p><i>Mandate</i></p> <ul style="list-style-type: none"> <li>• It <b>guarantees comprehensive rights to women</b> including the <b>right to take part in the political process</b>, to <b>social and political equality with men</b>, improved <b>autonomy in their reproductive health decisions</b>, and an <b>end to female genital mutilation</b>.</li> </ul> <p><i>The Maputo Protocol Advances African Women's Rights</i></p> <ul style="list-style-type: none"> <li>• The Protocol guarantees extensive rights to African women and girls and includes progressive provisions on:</li> </ul>

		<ul style="list-style-type: none"> <li>• Harmful traditional practices, e.g. child marriage and female genital mutilation (FGM).</li> <li>• Reproductive health and rights.</li> <li>• Roles in political processes.</li> <li>• Economic empowerment.</li> <li>• Ending violence against women.</li> </ul>
80.	d	<p><i>Ramgarh Vishdhari Tiger Reserve</i></p> <ul style="list-style-type: none"> <li>• It lies in the <b>south-eastern part of Rajasthan</b> in Bundi district with representation of both Vindhyan and Aravalli elements.</li> <li>• It is in continuation with the buffer area of <b>Ranthambore tiger reserve</b> in the North-eastern side and the <b>Mukundara Hills tiger</b> reserve in the southern side.</li> <li>• The <b>Mez River</b> (a tributary of Chambal River) passes through this tiger reserve.</li> <li>• The terrain is mostly rugged and hilly.</li> <li>• The area is <b>confined to biogeographic classification 4A</b> which is the '<b>Semi-arid</b>' Zone of India.</li> <li>• The habitat is dominated by <b>Dhok (Anogeissus pendula) trees</b>.</li> <li>• <b>Flora:</b> It consists of <b>Dry Deciduous Forest</b> and trees like Khair, Ronj (Acacia Leucophloea), Amaltas (Cassia fistula), Gurjan (Lannea coromodelica), Saler (Boswellia serrata), India ghost tree (Stercula urens), Tendu (Diospyrous melanoxylon) etc. are found here.</li> <li>• <b>Fauna:</b> It is home to <b>Leopards, Sloth bears</b>, Jungle cat, Golden jackal, Hyaena, Crested Porcupine, Indian Hedgehog, Rhesus macaque, hanuman langur etc.</li> </ul>
81.	b	<p><b>Skill India project successfully revives the dying Namda Art of Jammu and Kashmir</b></p> <ul style="list-style-type: none"> <li>• The Namda craft of Kashmir is being <b>successfully revived</b> under a Skill India's Pilot Project as part of the <b>Pradhan Mantri Kaushal Vikas Yojana (PMKVY)</b>, with nearly 2,200 candidates from across six districts of the state, receiving training in the dying art form.</li> </ul> <p><i>Namda Art</i></p> <ul style="list-style-type: none"> <li>• It is said to have begun in the 16th century when Mughal Emperor Akbar wanted to get a covering for his horses to protect them from the cold.</li> <li>• It was introduced by a Sufi saint named <b>Shah-e-Hamdan</b> to Kashmiris.</li> <li>• Namda is a type of <b>traditional Kashmiri felted carpet</b> that is <b>created using sheep wool</b> and has colourful hand embroidery.</li> <li>• The distinct feature of this Kashmiri craft is that <b>wool is felted and not woven</b>.</li> <li>• It is usually a <b>sandwich of many layers</b> of wool flattened over each other.</li> <li>• After a layer is spread, it is sprinkled homogeneously with water</li> </ul>



		<p>and pressed with a <b>tool known as 'pinjra'</b> (woven willow wicker).</p> <ul style="list-style-type: none"> <li>• Unique themes and <b>floral patterns</b> provide the themes for these masterpieces <b>and flowers and leaves, buds and fruits</b> are the essence of the designs.</li> <li>• It is practised as a craft in several cultures, especially in the countries throughout <b>Asia, viz. Iran, Afghanistan and India.</b></li> </ul>
82.	a	<p><b>China event raises concern over India's only ape</b></p> <ul style="list-style-type: none"> <li>• The hoolock gibbon, unique to the northeast, is one of 20 species of apes at a high risk of extinction</li> <li>• <b>GUWAHATI</b> The conservation status of India's only ape was a cause for concern at a global event on gibbons held a week ago in China.</li> <li>• Gibbons, the smallest and fastest of all apes, live in tropical and subtropical forests in the southeastern part of Asia. The hoolock gibbon, unique to India's northeast, is one of 20 species of gibbons on Earth.</li> <li>• The estimated population of hoolock gibbons is 12,000.</li> </ul> <p><i>One species, not two</i></p> <ul style="list-style-type: none"> <li>• Over the decades, zoologists thought the northeast housed two species of the ape — the <b>eastern hoolock gibbon</b> (<i>Hoolock leuconedys</i>) found in a specific region of Arunachal Pradesh and the <b>western hoolock gibbon</b> (<i>Hoolock hoolock</i>) distributed elsewhere in the northeast.</li> <li>• A study led by Hyderabad-based Centre for Cellular and Molecular Biology (CCMB) in 2021 proved through genetic analysis that there is only one species of ape in India. It debunked earlier research that the eastern hoolock gibbon was a separate species based on the colour of its coat.</li> <li>• The CCMB study concluded that two populations of the western hoolock gibbon and the assumed eastern hoolock gibbon split 1.48 million years ago. It also estimated that the gibbon divergence from a common ancestor occurred 8.38 million years ago.</li> <li>• However, the Red List maintained by the International Union for Conservation of Nature categorises the western hoolock gibbon as <b>endangered</b> and the eastern hoolock gibbon as <b>vulnerable</b>.</li> </ul>
83.	b	<p><b>APCC chief takes part in Bonalu festival in Hyderabad</b></p> <ul style="list-style-type: none"> <li>• Bonalu is an annual festival celebrated in twin cities Hyderabad and Secunderabad, and parts of Telangana.</li> <li>• The festival is dedicated to <b>Goddess Mahakali</b>, as per belief, a ferocious avatar of Goddess Durga.</li> <li>• The word "<b>Bonam</b>" signifies a meal or a feast in <b>Telugu</b>.</li> <li>• During this, the devotees offer rice cooked with milk and jaggery in an earthen or brass pot, which is decorated with neem leaves, turmeric and vermilion. Women carry these pots on their heads</li> </ul>

		<p>to temples.</p> <ul style="list-style-type: none"> <li>• Apart from Yellamma, during the Bonalu festival, the different forms of Mahakali are worshipped, including Mysamma, Dokkamma, Pedamma, Pochamma, Yellamma, Poleramma and Ankamma.</li> </ul>
84.	c	
85.	b	<p><b>3rd Sherpas G20 meeting began in Hampi, Karnataka</b></p> <ul style="list-style-type: none"> <li>• <b>Location:</b> Traditionally known as <b>Pampakshetra of Kishkindha</b>, Hampi is located in <b>central Karnataka on the banks of the Tungabhadra River.</b></li> <li>• It is a <b>UNESCO World Heritage Site.</b></li> <li>• It is renowned for its historical and archaeological significance, as it was <b>once the capital of the Vijayanagara Empire</b>, one of the greatest Hindu empires in South India, <b>which thrived from the 14th to the 16th century.</b></li> <li>• <b>River:</b> The <b>Tungabhadra River flows</b> through Hampi.</li> <li>• <b>Architecture:</b> <ul style="list-style-type: none"> <li>○ The site <b>boasts numerous grand temples, palaces, marketplaces</b>, and other structures.</li> <li>○ Some of the prominent landmarks include the <b>Virupaksha Temple, Vittala Temple, Lotus Mahal, Queen's Bath, and Elephant Stables.</b></li> <li>○ <b>Temples of this city are noted for their large dimensions, florid ornamentation, bold and delicate carvings</b>, stately pillars, magnificent pavilions and a great wealth of iconographic and traditional depictions which include subjects from the Ramayana and the Mahabharata.</li> </ul> </li> </ul> <p><i>Vittala Temple Complex</i></p> <ul style="list-style-type: none"> <li>• It is an iconic structure within Hampi, known for its <b>extraordinary architecture and the famous stone chariot.</b></li> <li>• It <b>dates back to the 15th century.</b> It was <b>built during the reign of King Devaraya II (1422 – 1446 A.D.)</b>, one of the rulers of the Vijayanagara Empire.</li> <li>• Several portions of the temple were <b>expanded and enhanced during the reign of Krishnadevaraya (1509 – 1529 A.D.)</b>, the <b>most famous ruler of the Vijayanagara dynasty.</b></li> <li>• It is <b>also known as Shri Vijaya Vitthala Temple.</b> It is <b>dedicated to Lord Vitthala, an incarnation of Lord Vishnu.</b></li> <li>• <b>Architecture:</b> <ul style="list-style-type: none"> <li>○ It is <b>built in the Dravidian style of architecture.</b> It has traits and features that are characteristic of <b>typical south Indian temple architecture.</b></li> <li>○ It is believed that the main shrine of the <b>temple originally had one enclosed Mantapa. An open Mantapa was added to it in the year 1554 A.D.</b></li> </ul> </li> </ul>

		<ul style="list-style-type: none"> <li>○ The temple complex is a sprawling area that is <b>surrounded by high compound walls and three towering gateways.</b></li> <li>○ The temple complex <b>has many halls, shrines and pavilions located inside it.</b> Each of <b>these structures is made of stone.</b></li> </ul>
86.	a	<p><b>Naval Group working on qualifying DRDO-developed Air Independent Propulsion system for installation on Scorpene</b></p> <p>The French defence firm has invested over ₹100 crore for three workshops for maintenance of critical systems of Scorpene submarines in India</p> <p><i>Indigenous AIP module</i></p> <ul style="list-style-type: none"> <li>● The Navy has drawn up plans to install Air Independent Propulsion (AIP) modules on all Scorpene submarines as they go for their refit beginning with <b>INS Kalvari</b> likely by end next year to enhance their endurance. The indigenous AIP module has been tested on shore and recently DRDO and Naval Group signed an agreement to integrate the AIP module on the Scorpene.</li> <li>● They are actively supporting the DRDO in qualifying indigenous supplier of liquid oxygen tank and preparation of the future stage of “<b>Jumboisation</b>” [making the new hull, integrate safely the AIP, cut the submarine and join it with new AIP section] during submarine’s normal refit.</li> </ul>
87.	a	<p>The <b>gharial</b> (<i>G. gangeticus</i>) is the only member of this crocodile family and is found in the Indian Subcontinent. Mature males may be up to 4.5-m long. The gharial is a critically endangered species.</p> <p>The gharial is distinguished from all other crocodiles by the shape of its skull and by its dentition, both of which are highly specialized for the capture of fish. The snout is elongated and narrow, although it becomes proportionally shorter and thicker with age. The teeth are more numerous than any other crocodylian species: there are 5 teeth on each premaxilla, 23–24 on each maxilla, and 25–26 on each dentary, giving a total of about 110 (Figs. 8.22 and 8.23). Upper and lower teeth both project outwards and the two sets interdigitate. The teeth all have a similar sharp and conical shape, the largest teeth being at the front, with the first three teeth on the dentary fitting into notches in the upper jaw.</p> <p>Gharials are the only living crocodylian with visible sexual dimorphism; its name derives from the fact that males develop a hollow bulbous nasal protuberance at sexual maturity that resembles the shape of an earthenware pot known locally as a “ghara” (Fig. 8.24). The function of the nasal boss is unknown, but it is possibly used as a visual sex indicator, as a sound resonator, or for bubbling or other associated sexual behaviors.</p>

88.	b	<p><b>Gambusia: This solution could actually be an invasive problem</b></p> <ul style="list-style-type: none"> <li>• Andhra Pradesh releases 10 million mosquitofish in waterbodies to control malaria, dengue</li> <li>• The Andhra Pradesh government has released approximately 10 million Gambusia fish into the state's water bodies to combat mosquito-borne diseases like malaria and dengue. The fish, also known as <b>mosquitofish</b>, is widely used as a biological agent for controlling mosquito larvae.</li> <li>• However, the release of these invasive alien fish species has raised concerns about the potential harm that will be sustained by native species that abound in the state's freshwater bodies.</li> <li>• <b>Gambusia affinis</b> (<i>G affinis</i>) is native to the waters of the southeastern United States and a single full grown fish eats about 100 to 300 mosquito larvae per day, according to MoHFW.</li> <li>• Gambusia have been a part of mosquito-control strategies for over a century in various parts of the world, including India. <i>G affinis</i> has a sister species, <b>Gambusia holbrooki</b> (<i>G holbrooki</i>), also known as the eastern mosquito fish.</li> <li>• Mosquitofish has been part of various malaria control strategies in India since 1928, including the Urban Malaria Scheme.</li> <li>• There are also studies that reported that Gambusia's predatory efficacy reduced when they were introduced in running water streams, water bodies with high insecticide levels and waterbodies with thick vegetation.</li> </ul> <p><i>Highly invasive</i></p> <ul style="list-style-type: none"> <li>• There are other concerns too: The fish has a <b>high breeding capacity</b>.</li> <li>• The fish can also survive in diverse environments.</li> <li>• It is this adaptability that has allowed the fish to survive on six out of seven continents and has made the International Union for Conservation of Nature declare Gambusia one of the 100 worst <b>invasive alien species</b> in the world. Multiple countries, including India have listed Gambusia as <b>invasive species</b>.</li> </ul>
89.	c	<p><i>External Commercial Borrowings (ECBs)</i></p> <ul style="list-style-type: none"> <li>• ECBs refer to the <b>borrowing of funds by Indian companies from foreign sources</b> in the form of <b>loans, bonds, or other financial instruments</b>.</li> <li>• <b>Purpose:</b> It can be used to <b>finance a variety of purposes</b>, including the <b>expansion of business, the acquisition of assets, and the repayment</b> of existing debt.</li> <li>• <b>Source of ECBs:</b> ECB can be obtained from a variety of sources, <b>including foreign banks, international financial institutions, and foreign subsidiaries of Indian companies</b>.</li> <li>• <b>ECB can be in the form of rupee-denominated loans</b>, which are repaid in Indian rupees, <b>or foreign currency-denominated loans</b>, which are repaid in a foreign currency.</li> </ul>

		<ul style="list-style-type: none"> <li>● <b>Regulation:</b> ECB is <b>subject to regulatory oversight by the RBI</b>, which <b>sets limits on the amount of ECB</b> that Indian companies can obtain <b>and the purposes for which it can be used.</b></li> <li>● <b>Companies must also meet certain eligibility criteria</b> in order to access ECB, such as minimum credit ratings and debt-equity ratios.</li> <li>● <b>Benefits:</b> <ul style="list-style-type: none"> <li>○ ECBs provide an <b>opportunity to borrow large volumes of funds.</b></li> <li>○ The funds are <b>available for a relatively long term.</b></li> <li>○ <b>Interest rates are also lower</b> compared to domestic funds.</li> <li>○ <b>ECBs are in the form of foreign currencies.</b> Hence, they <b>enable the corporate to have foreign currency to meet the import of machineries</b> etc.</li> </ul> </li> <li>● <b>Risks:</b> <ul style="list-style-type: none"> <li>○ <b>Exchange rate risk:</b> Fluctuations in the value of the Indian rupee against foreign currencies can affect the cost of repaying the loan.</li> <li>○ <b>Sovereign risk:</b> ECB exposes companies to sovereign risk, as the ability of a foreign government to repay its debt can affect the creditworthiness of foreign lenders. If a foreign government defaults on its debt, it could have a negative impact on the ability of foreign lenders to repay their loans to Indian companies.</li> <li>○ <b>Credit risk:</b> ECB exposes companies to credit risk, as foreign lenders may not have the same level of protection as domestic lenders in the event of default.</li> <li>○ <b>Regulatory risk:</b> ECB is subject to regulatory risk, as changes to government regulations or policies related to ECB can affect the availability and cost of borrowing.</li> </ul> </li> </ul>
90.	c	<p><i>National Multidimensional Poverty Index</i></p> <ul style="list-style-type: none"> <li>● It is prepared based on the <b>latest National Family Health Survey of 2019-21</b> and is the second edition of the National Multidimensional Poverty Index (MPI).</li> <li>● Totally <b>12 parameters of health, education and standard of living</b> are examined in the report.</li> <li>● These include nutrition, child and adolescent mortality, maternal health, years of schooling, school attendance, cooking fuel, sanitation, drinking water, electricity, housing, assets, and bank accounts.</li> <li>● The report follows <b>Alkire-Foster methodology</b> developed by its technical partners -- the <b>Oxford Poverty and Human Development Initiative (OPHI)</b> and <b>United Nations Development Programme (UNDP).</b></li> </ul>


91.	c	<p>The plastic-free cloth toys in traditional attire tell the story of the Bodo community of Assam. After all, the <b>dokhona</b> is a traditional attire of Bodo women and the <b>gamcha</b> is a handmade towel woven specifically men in Assam.</p> <p><i>Assamese Gamocha</i></p> <ul style="list-style-type: none"> <li>● Assamese Gamocha is a traditional handwoven cotton towel, which is an integral part of Assamese culture and tradition.</li> <li>● It is a <b>rectangular piece of cloth</b>. The towel comes in various colors and designs, and the <b>most popular among them are the red and white ones with a Phulam known as the 'Gamocha design'</b>.</li> <li>● The word 'Gamocha' is derived from the Assamese word '<b>Ga</b>' (<b>body</b>) and '<b>Mocha</b>' (<b>wipe</b>), which means a towel to wipe the body. The weavers use a traditional loom called the '<b>Taat Xaal</b>' to weave the towel.</li> <li>● <b>Recognition:</b> <ul style="list-style-type: none"> <li>○ The Assamese Gamocha has gained national and international recognition for its unique design and cultural significance. It was granted the <b>Geographical Indication (GI) tag</b>, which is a recognition of its origin and unique characteristics.</li> <li>○ The GI tag ensures that the Gamocha is protected from imitations and helps to promote the local weavers and their traditional weaving techniques.</li> </ul> </li> <li>● <b>Cultural Significance:</b> <ul style="list-style-type: none"> <li>○ The Assamese Gamocha is a <b>symbol of Assamese culture and tradition</b>. The towel is used in various ways in daily life, and each use has a specific cultural significance. <ul style="list-style-type: none"> <li>■ It is used as a <b>headscarf by women during traditional ceremonies and functions</b>, and it is a <b>sign of respect and honor when it is presented to someone as a gift</b>.</li> <li>■ The Gamocha is also used during the <b>Bihu festival</b>, which is the most important festival of Assam. It is <b>draped around the neck of the Bihu dancers</b>, and it is an essential part of their costume. The towel is also used as a symbol of unity and brotherhood during the Bihu festival.</li> </ul> </li> </ul> </li> </ul> <p><i>Bengali Gamcha</i></p> <ul style="list-style-type: none"> <li>● Bengali Gamcha traditional handwoven cotton towel, which is an integral part of Assamese culture and tradition. It is a <b>rectangular piece of cloth</b>. It comes in a <b>red-and-white chequered pattern</b>.</li> </ul>
92.	b	<p><i>DPT3 Vaccine</i></p> <ul style="list-style-type: none"> <li>● The DPT vaccine is a class of combination vaccines against three</li> </ul>



		<p>infectious diseases in humans: <b>diphtheria, pertussis (whooping cough), and tetanus.</b></p> <ul style="list-style-type: none"> <li>● The vaccine <b>components include diphtheria and tetanus toxoids</b> and either killed whole cells of the bacterium that causes pertussis or pertussis antigens.</li> <li>● The primary dose of DPT provided as part of pentavalent vaccine and 2 booster doses <b>are given at 16 -24 months and 5-6 years, respectively.</b></li> <li>● <b>Diphtheria:</b> <ul style="list-style-type: none"> <li>○ It is an infectious disease caused by <b>Corynebacterium diphtheria</b>, a bacterium.</li> <li>○ <b>Vulnerable groups:</b> Diphtheria particularly affects children <b>aged 1 to 5 years**.**</b> In temperate climates diphtheria tends to occur during the colder months.</li> </ul> </li> <li>● <b>Tetanus</b> <ul style="list-style-type: none"> <li>○ It is an infection caused by <b>bacteria called Clostridium tetani.</b></li> <li>○ When these bacteria enter the body, they produce a toxin that causes painful muscle contractions.</li> <li>○ Tetanus bacteria are more likely to infect <b>certain breaks in the skin</b></li> <li>○ It does not <b>spread from person to person.</b></li> </ul> </li> <li>● <b>Pertussis</b> <ul style="list-style-type: none"> <li>○ It is also known as <b>whooping cough.</b></li> <li>○ It is a very contagious respiratory illness caused by a type of bacteria called <b>Bordetella pertussis.</b></li> <li>○ Whooping cough bacteria attach to the cilia (tiny, hair-like extensions) that line part of the upper respiratory system.</li> <li>○ The bacteria release toxins (poisons), which damage the <b>cilia and cause airways to swell.</b></li> <li>○ It can <b>spread easily from person to person</b> through the air.</li> </ul> </li> </ul>
93.	c	<p>Samarth Ramdas (circa 1608 – 1681), also known as Sant Ramdas or Ramdas Swami, was a Hindu saint, philosopher, poet, writer and spiritual master.</p> <p>— He was a contemporary of Mughal Emperors <b>Jahangir and Shahjahan.</b></p> <p>— He was a <b>devotee of Lord Ram and Hanuman</b>, he toured the entire Indian subcontinent for 12 years, during which he came across various spiritual teachers and diverse religious traditions.</p> <p>— Ramdas has influenced Hindu nationalist thinkers across the years such as Lokmanya Tilak, RSS founder KB Hedgewar, and VD Savarkar.</p> <p>— His paean to Lord Hanuman, Maruti Stotra, is still commonly recited by school children as well as wrestlers akhadas across Maharashtra.</p>

94.	b	
95.	a	
96.	c	<p><b>Over 60 species of plants that can survive extreme dehydration found in Western Ghats</b></p> <ul style="list-style-type: none"> <li>• In the biodiversity hotspot Western Ghats, researchers have found 62 species of plants that can withstand harsh environments . The discovery of the species, called <b>desiccation-tolerant</b> (DT) vascular plants, has potential applications in agriculture, particularly in areas where water is scarce.</li> <li>• DT plants can withstand extreme dehydration, losing up to 95 per cent of their water content. They are usually found in rocky outcrops in the tropics and can recover quickly when water supplies are restored.</li> <li>• Futuristically speaking, the genes of these plants could be used to create a high-temperature tolerant variety of crops to improve climate resilience and ensure food security for the mass.</li> <li>• Some plant species — ranging from algae to angiosperms — thrive in harsh environments and are termed as <b>extremophytes</b>. These species are found in extreme habitats, like hot and cold deserts, estuaries, rock outcrops, glaciers and other arid and semi-arid regions.</li> <li>• To adapt to extreme conditions, these plant species develop adaptive strategies to survive through morphological and physiological traits</li> <li>• Out of the 62 species identified, 16 are <b>endemic</b> to India while 12 are exclusive to Western Ghats outcrops, said Aboli Kulkarni, another author of the study.</li> <li>• <b>Hydration and desiccation-tolerance</b> are two commonly studied strategies for plants in extreme habitats, he added.</li> <li>• “Hydration is a condition where plant tissues can tolerate more than <b>30 per cent of water content</b>. But in desiccation, plants undergo longer dry days during which the moisture content of the leaves is the same as in the air,” he said.</li> <li>• Some bryophytes, ferns, lycophytes and angiosperms growing in seasonally dry and semi-arid habitats have evolved a mechanism known as desiccation-tolerance by which plants can tolerate a loss of 80–95 per cent of their relative water content and resurrect back.</li> <li>• DT plant varieties are found in both flowering and non-flowering species and in both temperate and tropical climates. The global population of these species ranges between 300 and 1,500, according to the study.</li> </ul>
97.	a	<p>— Under The Indian Citizenship Act of 1955, Persons of Indian Origin are <b>not</b> allowed dual citizenship.</p> <p>— If a person has ever held an Indian passport and has obtained a</p>

		passport of another country, they are required to immediately surrender their Indian passport.
98.	b	<p>The 103rd amendment was introduced to provide up to 10 per cent reservation to EWS other than backward classes, SCs, and STs in higher educational institutions and initial recruitment in government jobs. The amendment empowered state governments to provide reservation on the basis of economic backwardness.</p> <p>— The 103rd Amendment inserted Articles 15(6) and 16(6) in the Constitution of India.</p> <p><i>Article 15 prohibits discrimination on grounds of religion, race, caste, sex, or place of birth.</i></p> <p><i>Article 16 guarantees equal opportunity in matters of public employment. The additional clauses gave Parliament the power to make special laws for EWS like it does for SCs, STs, and OBCs.</i></p> <p>— The EWS reservation was granted based on the recommendations of a commission headed by Major General (retd) S R Sinho.</p> <p>— The <b>Sinho Commission</b> recommended that all below-poverty-line (BPL) families within the general category as notified from time to time, and also all families whose annual family income from all sources is below the taxable limit, should be identified as EBCs (economically backward classes).</p>
99.	a	<p>Article 74 of the Constitution of India states that “There shall be a Council of Ministers with the Prime Minister at the head to aid and advise the President who shall, in the exercise of his functions, act in accordance with such advice.”</p> <p>— The President may require the Council of Ministers to reconsider such advice, either generally or otherwise, and the President shall act in accordance with the advice tendered after such reconsideration.</p> <p>— The question of whether any and if so what, advice was tendered by Ministers to the President shall not be inquired into in any court.</p> <p>— The Prime Minister shall be appointed by the President and the other Ministers shall be appointed by the President on the advice of the Prime Minister.</p> <p>— The total number of Ministers, including the Prime Minister, in the Council of Ministers shall not exceed <b>fifteen</b> per cent. of the total number of members of the House of the People.</p> <p>— The Ministers shall hold office during the pleasure of the</p> <p>— The Council of Ministers shall be collectively responsible to the House of the People.</p>
100.	a	

101.	c	
102.	d	
103.	d	<p>Thousands of dead fish washed up on multiple beaches in southeast Texas. The incident took place due to a phenomenon called “fish kill”.</p> <ul style="list-style-type: none"> <li>— It is the sudden and unexpected death of many fish or other aquatic animals over a short period and mostly within a particular area.</li> <li>— A combination of factors led to the occurrence of the Texas fish kill such as: <ul style="list-style-type: none"> <li>(i) Warm sea temperatures.</li> <li>(ii) Low levels of dissolved oxygen in the water</li> <li>(iii) Calm seas</li> <li>(iv) Cloudy skies (phytoplanktons unable to carry out the process of photosynthesis, which is another way of producing oxygen in the water.)</li> </ul> </li> </ul>
104.	c	<p>The National Disaster Management Authority classifies cyclones broadly into two categories: extratropical cyclones and tropical cyclones</p> <ul style="list-style-type: none"> <li>— A tropical cyclone is a rapidly rotating storm originating over tropical oceans from where it draws the energy to develop.</li> <li>— It has a <b>low-pressure centre</b> and clouds spiraling towards the eyewall surrounding the “eye”, the central part of the system where the weather is normally calm and free of clouds.</li> <li>— Its diameter is typically around 200 to 500 km but can reach 1000 km.</li> <li>— A tropical cyclone brings very violent winds, torrential rain, high waves and, in some cases, very destructive storm surges and coastal flooding.</li> <li>— <b>The winds blow counterclockwise in the Northern Hemisphere and clockwise in the Southern Hemisphere.</b></li> <li>— Tropical cyclones have different names depending on their location and strength. For instance, they are known as hurricanes in the Caribbean Sea, the Gulf of Mexico, the North Atlantic Ocean and the eastern and central North Pacific Ocean. In the western North Pacific, they are called typhoons.</li> </ul>
105.	a	<p>The Tankai method is an ancient shipbuilding technique that involves stitching wooden planks together to construct ships, rather than using nails. This method offers flexibility and durability to the ships, making</p>

		<p>them less susceptible to damage from shoals and sandbars. <b>This 2000-year-old shipbuilding technique</b> will be preserved and brought back to life.</p>
106.	d	
107.	b	<p>Polymetallic nodules are a potential mineral resource for copper, nickel, cobalt, iron, manganese, and rare earth elements—metals that are becoming important for modern life, since they are used in making electronics like rechargeable batteries and touch screens, among other things.</p> <ul style="list-style-type: none"> <li>• These nodules are found in various deep ocean regions, including the deep Pacific and Indian Oceans.</li> <li>• The nodules of greatest mining interest are approximately potato-sized, and sit on the sediment surface across abyssal plains in the Clarion-Clipperton Zone (CCZ), a region spanning 5,000 kilometers (3,100 miles) across the central Pacific Ocean, at depths of ~4,000 – 5,500 meters (12,000 – 18,000 feet)</li> </ul>
108.	c	<p><i>White's Seahorse</i></p> <ul style="list-style-type: none"> <li>• It is commonly seen holding onto the <b>nets of swimming enclosures</b>.</li> <li>• The species was named after John White, Surgeon General to the First Fleet.</li> <li>• Seahorses are often considered a <b>flagship species</b> for conservation.</li> <li>• <b>Male seahorses</b> can be recognised by the presence of a <b>pouch below the abdomen</b> which is absent in females.</li> <li>• It is usually very well <b>camouflaged in various shades</b> of brown, grey and black.</li> <li>• <b>Habitat:</b> <ul style="list-style-type: none"> <li>○ These are <b>endemic to Australia</b>.</li> <li>○ It occurs in depths down to about 25 m in temperate marine waters along the south-eastern and south-western coasts of Australia. It is common in Sydney Harbour.</li> </ul> </li> <li>• <b>Breeding behaviours</b> <ul style="list-style-type: none"> <li>○ The reproduction of seahorses is truly remarkable.</li> <li>○ The male seahorse has a pouch (a marsupium) into which the female seahorse lays her eggs.</li> <li>○ In White's Seahorse, the <b>male fertilises the eggs</b> and cares for them for about three weeks.</li> <li>○ <b>Threat:</b> The primary cause for the decline in abundance of White's Seahorse is the <b>loss of natural habitats</b> across their range in eastern Australia.</li> </ul> </li> <li>• <b>Conservation Status:</b> <ul style="list-style-type: none"> <li>○ <b>IUCN:</b> Endangered</li> </ul> </li> </ul>

109.	a	<p>In a major development that could change the Earth's official geological timeline, geologists have said sediments at Crawford Lake in Canada's Ontario have provided evidence of the beginning of the Anthropocene epoch — a proposed geological epoch that began when human activity started to have a significant impact on the Earth.</p> <p>— The Anthropocene epoch as a term was first coined by Nobel Prize-winning chemist Paul Crutzen and biology professor Eugene Stoermer in 2000 to denote the present geological time interval, in which the Earth's ecosystem has gone through radical changes due to human impact, especially since the onset of the Industrial Revolution.</p> <p>— Numerous phenomena are associated with this epoch, such as global warming, sea-level rise, ocean acidification, mass-scale soil erosion, the advent of deadly heat waves, deterioration of the biosphere and other detrimental environmental changes.</p> <p>— The planet's geological time scale is divided into five broad categories: Eons Epochs Eras Periods Ages.</p> <p>— <b>Eon is the broadest category</b> of geological time and <b>age is the smallest category</b>. Each of these categories is further divided into sub-categories. For instance, Earth's history is characterised by four eons: Hadeon (oldest), Archean, Proterozoic, and Phanerozoic (youngest).</p>
110.	a	<p>Fly Ash</p> <ul style="list-style-type: none"> <li>● <b>About:</b> <ul style="list-style-type: none"> <li>○ Fly ash is an <b>unwanted unburnt residue of coal combustion in a coal thermal power plant</b>.</li> <li>○ It is <b>emitted along with flue gases</b> during the burning of coal in a furnace and collected using the electrostatic precipitators.</li> <li>○ The <b>fly ash collected with the help of precipitators is converted into a wet slurry</b> to minimise fugitive dust emissions.</li> <li>○ It is then transported to the scientifically designed ash ponds through slurry pipelines.</li> </ul> </li> <li>● <b>Composition:</b> <ul style="list-style-type: none"> <li>○ Composition of fly ash <b>depends upon the composition of coal being burnt</b>. It may contain Beryllium, Arsenic, unburnt Carbon, Silicon Oxides, Dioxins, aluminium oxide, ferric oxide, calcium oxide, etc. <ul style="list-style-type: none"> <li>■ These elements are <b>severe environmental pollutants</b>.</li> </ul> </li> </ul> </li> <li>● <b>Properties:</b></li> </ul>




		<ul style="list-style-type: none"> <li>○ Resemble Portland cement <b>but is chemically different.</b> <ul style="list-style-type: none"> <li>■ Portland cement is a binding material in the form of a finely ground powder that is manufactured by burning and grinding a mixture of limestone and clay.</li> <li>■ Its chemical composition includes calcium silicates, calcium aluminate and calcium aluminoferrite.</li> </ul> </li> <li>○ Exhibit cementitious properties.           <ul style="list-style-type: none"> <li>■ A cementitious material is one that hardens when mixed with water.</li> </ul> </li> <li>● <b>Uses:</b> It is <b>used in concrete and cement products, road base, metal recovery,</b> and mineral filler among others.</li> <li>● <b>Harmful Effects:</b> Fly ash <b>particles are toxic air pollutants.</b> They can trigger heart disease, cancer, respiratory diseases and stroke.           <ul style="list-style-type: none"> <li>○ When combined with water they cause leaching of heavy metals in ground water.</li> <li>○ It also pollutes the soil, and affects the root development system of trees.</li> <li>○ Gross under-utilisation of this by-product over the years has led to the accumulation of 1,670 million tonnes of fly ash according to the Summary of Ash Generation and Utilisation during 2020-2021 by the Joint Committee earlier constituted by the NGT.</li> </ul> </li> </ul>
111.	c	<p><i>Safdarjung Tomb</i></p> <ul style="list-style-type: none"> <li>● Safdarjung Tomb is the <b>last garden tomb constructed in the late Mughal Empire Style.</b></li> <li>● <b>Location:</b> At the Intersection of Safdarjung Road and Aurobindo Marg, <b>New Delhi, India.</b></li> <li>● It was <b>built in 1753- 54 as mausoleum of Safdarjung,</b> the viceroy of Awadh under the Mughal Emperor, Mohammed Shah. <b>It was built by his son, Nawab Shujaud Daula.</b></li> <li>● <b>Architecture:</b> <ul style="list-style-type: none"> <li>○ Also known as '<b>Safdarjung ka Maqbara,</b>' the tomb is <b>built on a square plan and has a central dome and is made of marble and sandstone.</b></li> <li>○ The <b>dome is surrounded by four smaller domes and four minarets.</b></li> <li>○ The <b>exterior of the tomb is decorated</b> with intricate <b>latticework and calligraphy.</b></li> <li>○ The <b>interior of the tomb is decorated with marble and gold leaf.</b></li> <li>○ The <b>tomb is surrounded by lush green gardens.</b> The <b>garden is in the Mughal Charbagh garden style,</b> and is a <b>smaller version of the garden of Humayun Tomb.</b></li> </ul> </li> </ul>

		<p><i>Safdarjung</i></p> <ul style="list-style-type: none"> <li>● <b>Safdarjung (1708 – 5 October 1754)</b>, whose full name was Mirza Muqim Abul Mansur Khan, was a <b>major figure in the Mughal court during the declining years of the Mughal Empire.</b></li> <li>● He became the <b>second Nawab of Awadh</b> when he <b>succeeded Saadat Ali Khan I</b> (his maternal uncle and father-in-law) in <b>1739.</b></li> <li>● <b>In 1739, Safdarjung was appointed the Prime Minister of the Mughal Empire by Emperor Muhammad Shah.</b></li> <li>● He <b>served as Prime Minister for five years</b>, during which time he helped to stabilize the Mughal Empire and to improve its relations with other powers in the region.</li> <li>● <b>After his term as Prime Minister, Safdarjung returned to Awadh</b>, where he <b>ruled as Nawab for the next 15 years.</b></li> <li>● He was a <b>capable ruler, and he helped to make Awadh one of the most prosperous provinces in the Mughal Empire.</b></li> <li>● He <b>built many mosques, madrasas, and other public buildings in Awadh</b>, and he also supported the arts of music, poetry, and painting.</li> <li>● <b>He died in 1754</b>, and he was buried in Safdarjung Tomb, Delhi.</li> </ul>
112.	a	<p><a href="https://frontline.thehindu.com/the-nation/human-rights/odisha-zero-villages-continue-to-struggle-for-benefits-of-welfare-schemes/article67020046.ece">https://frontline.thehindu.com/the-nation/human-rights/odisha-zero-villages-continue-to-struggle-for-benefits-of-welfare-schemes/article67020046.ece</a></p>
113.	c	<p><i>Miocene epoch</i></p> <ul style="list-style-type: none"> <li>● The Miocene was a long-lasting epoch in which the earth's climate rebounded from the cooling of the Oligocene and there was a marked increase in both global temperatures and the total number of mammal species.</li> <li>● It is often divided into the <b>Early Miocene Epoch</b>(23 million to 16 million years ago), the <b>Middle Miocene Epoch</b> (16 million to 11.6 million years ago), and the <b>Late Miocene Epoch</b> (11.6 million to 5.3 million years ago).</li> <li>● <b>What changes occurred during this period?</b> <ul style="list-style-type: none"> <li>○ <b>India collided with Asia</b>, causing a massive upthrust of the Asian continent that created the Tibetan plateau and the Himalayas.</li> <li>○ As Africa moved northwards to link with Europe, the Tethys Sea, a vast seaway that once existed between the two continents Europe and Africa, disappeared.</li> <li>○ As the Miocene progressed, <b>the earth began to cool once more</b>; the climate became more arid and mammalian diversity began to decrease again.</li> <li>○ <b>Grasslands underwent a major expansion</b> in the early Miocene and mammalian herbivores, including rhinos, and many artiodactyls, had to evolve a variety of new</li> </ul> </li> </ul>

		<p>adaptation to cope with the more open and arid habitats and coarser vegetation.</p> <ul style="list-style-type: none"> <li>○ Miocene fossils are abundant in Africa, while there are very earlier fossils from that continent.</li> <li>○ The drop in sea levels during the Miocene associated with the growth of polar ice caps led to the first exposure of what is now Florida in the Miocene.</li> <li>○ In <b>the oceans</b>, the Miocene was a time of changing circulation patterns, probably due to global cooling.</li> <li>○ Patterns of oceanic nutrient distribution changed, leading to increased productivity in some regions and decreased productivity in others.</li> <li>○ The Miocene was a <b>time of accelerated evolution among marine plankton and molluscs</b>, many groups showing increases in biological diversity.</li> </ul>
114.	b	<ul style="list-style-type: none"> <li>● President of India visited the <b>Raigad Fort in Maharashtra</b> and paid tribute to <b>Chhatrapati Shivaji Maharaj</b>.             <ul style="list-style-type: none"> <li>○ The Maharashtra government is now seeking the <b>World Heritage Site</b> tag for the <b>Raigad fort</b>, along with 13 other sites related to the era of Chhatrapati Shivaji.</li> </ul> </li> </ul> <p><b>About Raigad Fort</b></p> <ul style="list-style-type: none"> <li>● <b>Location: Raigad is a hill fort situated about 25 km from Mahad</b> in the Raigad district and stands 2,851 feet above <b>sea level</b>.</li> <li>● The fort was known to <b>early Europeans as the Gibraltar of the East</b>. Its decisive feature is a mile and a half flat top which has adequate room for buildings. In its prime, the fort had 300 stone houses and a garrison of 2,000 men.</li> <li>● <b>Historical link :</b> <ul style="list-style-type: none"> <li>○ The fort, which was earlier <b>called Rairi</b>, was the seat of the Maratha clan <b>Shirke in the 12th century</b>.</li> <li>○ Many dynasties ruled the fort from the <b>dynasty of Bahaminis to the Nizam Shahis and then the Adil Shahis</b>.</li> <li>○ In 1656, <b>Chhatrapati Shivaji Maharaj</b> captured it from the <b>More's of Javli</b> who were under the <b>suzerainty of the Adilshahi Sultanate</b>.</li> <li>○ The fort's name was changed to <b>Raigad by Chhatrapati Shivaji Maharaj</b> in 1662, and he also added a few structures.                 <ul style="list-style-type: none"> <li>■ The Raigad fort became the seat of Chhatrapati's government by 1664.</li> <li>■ The fort not only helped <b>Shivaji challenge the supremacy</b> of the <b>Adil Shahi dynasty</b> but also <b>opened up the routes towards Konkan for the extension of his power</b>.</li> </ul> </li> </ul> </li> </ul>

115.	a	<p>The <b>Kari Ishad mango</b> is accepted as one of the finest quality mangos due to its unique aroma, luscious taste, high amount of pulp, shape, and size from Uttara Kannada district, Karnataka.</p> <p>— It is mainly grown in Ankola, Karwara, and to a certain extent in Kumta, Uttara Kannada district. Locally it is pronounced as 'Kari Ishada' which is sweet and used for table purposes.</p> <p>— Kari Ishad Mango has got a GI tag under Subsection (1) of Section 13 of the Geographical Indications of Goods (Registration and Protection) Act, 1999.</p>
116.	c	<p>The government increased the Fair and Remunerative Price (FRP), the minimum price that mills have to pay to sugarcane growers, by Rs 10 to Rs 315 per quintal for the 2023-24 season starting October.</p> <p>— The <b>decision to increase the FRP of sugarcane was taken in the meeting of the Cabinet Committee on Economic Affairs, chaired by Prime Minister</b>. The FRP of sugarcane has been fixed at Rs 315 per quintal for the 2023-24 season.</p> <p>— The FRP approved <b>shall be applicable for the purchase of sugarcane</b> from the farmers in the sugar season 2023-24 (starting w.e.f. October 1, 2023) by sugar mills.</p> <p>— The FRP has been determined on the basis of recommendations of the Commission for Agricultural Costs and Prices (CACP) and after consultation with State Governments and other stakeholders.</p>
117.	b	<p><b>Alert issued against scrub typhus in Alappuzha</b></p> <p><i>Scrub typhus</i></p> <ul style="list-style-type: none"> <li>● It is a life-threatening infection caused by <b>Orientia tsutsugamushi bacteria</b> which is a major public health threat in South and Southeast Asia.</li> <li>● It <b>spreads</b> to people through <b>bites of infected chiggers</b> (larval mites).</li> <li>● <b>Symptoms:</b> The most common symptoms of scrub typhus include fever, headache, body aches, and sometimes rash.</li> <li>● <b>Treatment:</b> Scrub typhus should be treated with the antibiotic doxycycline. Doxycycline can be used in persons of any age.</li> <li>● There <b>is no vaccine available</b> for this disease.</li> <li>● It will not spread from person to person.</li> <li>● India is one of the hotspots with at least 25% of the disease burden.</li> </ul> <p><i>Typhus fever</i></p> <ul style="list-style-type: none"> <li>● Typhus fevers are a group of diseases caused by bacteria that include epidemic typhus, scrub typhus, and murine typhus.             <ul style="list-style-type: none"> <li>○ <b>Epidemic typhus:</b> It is caused due to Rickettsia prowazeki and it is spread to people through contact <b>with infected body lice</b>.</li> <li>○ <b>Scrub typhus:</b> It caused due to Orientia tsutsugamushi and <b>spread by chiggers</b>.</li> <li>○ <b>Murine typhus:</b> It is caused due to Rickettsia typhi</li> </ul> </li> </ul>

		<b>spread by fleas.</b> It occurs in tropical and subtropical climates around the world
118.	a	
119.	c	
120.	c	
121.	d	
122.	b	<p>Joint Sitting of Parliament is Summoned by</p> <ul style="list-style-type: none"> <li>● The joint sitting is called by the President.</li> <li>● The Speaker presides over a joint sitting. In the absence of the Speaker, the Deputy Speaker of the Lok Sabha presides over it, and in his absence, the sitting is presided over by the Deputy Chairman of the Rajya Sabha.</li> <li>● If any of the above-mentioned people are not available, any Member of Parliament (MP) can preside over the sitting by consensus of both Houses.</li> <li>● The quorum to constitute a joint sitting: 1/10th of the total number of members of the House.</li> </ul>
123.	c	<p>Stapled Visa is issued by many countries. These countries are; Cuba, Iran, Syria and North Korea. These countries used to issue Stapled Visa to the citizens of China and Vietnam, but after a mutual agreement between these countries, this process is stopped.</p> <p>China still issues stapled visas to the citizens of two Indian states i.e. Arunachal Pradesh and Jammu &amp; Kashmir but China does not apply this policy to the residents of other states of India. Since China considers Arunachal Pradesh as part of Tibet and China has confiscated the territory of Tibet that is why China considers Arunachal Pradesh as a part of its country. China considers Arunachal Pradesh as its part, but people living in <b>Arunachal Pradesh</b> are not considered Chinese citizens. That is the reason China issues Stapled Visa to citizens of Arunachal Pradesh.</p> <p>According to China, citizens of Arunachal Pradesh do not require a visa to travel to their own country i.e.China, but the area of Arunachal</p>

		<p>Pradesh comes under Indian possession, hence Stapled Visa or Nathi Visa issued for Arunachal people.</p> <p><i>Stapled Visa</i></p> <p>The main reason to say " Stapled Visa " is simply that the paper which is attached separately with a <b>passport is stapled with the help of a "stapler"</b>. That is why it is called Stapled visa.</p> <p><i>Implications of issuance of Stapled Visa:</i></p> <ol style="list-style-type: none"> <li>1. It is a rule in the Stapled Visa that when a Stapled Visa holder passenger (such as an Arunachal resident) wants to return to his home country after completing his work in China, then his Stapled visa, entry and exit pass are torn off. The passport of the person travelling does not record any details of this trip which creates a security challenge for the administration of a country like India.</li> </ol> <p><b>International Airports of India</b></p> <ol style="list-style-type: none"> <li>2. A Stapled Visa does not leave a permanent trace on one's passport. If China leaves a permanent mark on a J&amp;K citizen's passport. It implies that China is accepting that J&amp;K is the territory of India, which China does not want to do.</li> <li>3. If the Stapled Visa is issued for the citizen of India then it is a challenge for the Indian government that an enemy country considers the land of an "independent country" as its territory.</li> <li>4. A country opposes the issuance of a stapled visa because the visa issuing country may conspire against the country whose citizens are getting the Stapled Visa because <b>stapled visa does not leave any proof of trip done by the stapled visa holder</b>. <i>The journey of Jammu and Kashmir's separatist leaders to China is strong evidence of the same. It is worth knowing that since 2009, China has started issuing visas to the residents of Jammu and Kashmir.</i></li> </ol>
124.	c	<p><i>Dhala Crater</i></p> <ul style="list-style-type: none"> <li>• It is the <b>oldest and the largest impact crater in India</b>.</li> <li>• It is estimated to have <b>formed some 2500 million years ago</b>.</li> <li>• <b>Named after the village Dhala</b>, the crater is an eroded leftover of the original impact structure.</li> <li>• <b>Location:</b> It is located in <b>Shivpuri district in Madhya Pradesh</b>.</li> <li>• <b>Size:</b> It is a massive <b>11 km in diameter</b>, making it the <b>largest in Asia</b>.</li> </ul>
125.	c	<p>A new study reveals that oceans play a <b>crucial role in cooling the planet by releasing short-lived halogens</b>, including <b>chlorine, bromine, and iodine</b>.</p> <ul style="list-style-type: none"> <li>• These halogens <b>currently contribute 8-10% of cooling</b>, a figure projected to <b>increase to 18-31% by 2100</b>.</li> </ul> <p><b>About Short-lived halogens:</b></p> <p>Short-lived halogens refer to <b>chlorine, bromine, and iodine compounds that have a relatively short lifespan in the atmosphere</b>, typically <b>less than six months</b>. These halogens play a <b>role in the Earth's climate system by contributing to cooling and</b></p>



		<p><b>warming effects.</b></p> <ul style="list-style-type: none"> <li>• <b>Short-lived halogens are produced naturally by phytoplankton and algae found in the oceans.</b></li> <li>• <b>Its major constituents are chlorine, bromine or iodine. Its life span is less than six months.</b></li> <li>• According to a recent study, the oceans <b>contribute 8-10% to the cooling of the planet</b> by emitting short-lived halogens.</li> <li>• However, short-lived halogens have a different effect on methane. They increase the lifetime of methane in the atmosphere by dilapidated hydroxyl radicals.</li> </ul>
126.	b	<p>Shiveluch volcano is <b>one of Russia's most active volcanoes</b> which erupted shooting a vast cloud of ash far up into the sky and smothering villages in drifts of grey volcanic dust, triggering an aviation warning around Russia's far eastern Kamchatka Peninsula.</p> <p>— One of Kamchatka's largest and most active volcanoes, Shiveluch has had an estimated 60 substantial eruptions in the past 10,000 years, the last major one being in 2007.</p> <p>— It has two main parts, the smaller of which — Young Shiveluch — scientists have reported as being extremely active in recent months, with a peak of 2,800 metres (9,186 feet) that protrudes out of the 3,283 metre-high Old Shiveluch.</p>
127.	c	<p><i>Permafrost</i></p> <ul style="list-style-type: none"> <li>• Permafrost is <b>any ground that remains completely frozen—32°F (0°C) or colder—for at least two years straight.</b></li> <li>• <b>Global Distribution:</b> <ul style="list-style-type: none"> <li>○ These permanently frozen grounds are <b>most common in regions with high mountains</b> and in <b>Earth's higher latitudes</b>—near the North and South Poles.</li> <li>○ Permafrost <b>covers large regions of the Earth.</b> Almost a <b>quarter of the land area in the Northern Hemisphere has permafrost</b> underneath.</li> </ul> </li> <li>• <b>Composition:</b> <ul style="list-style-type: none"> <li>○ Permafrost is <b>made of a combination of soil, rocks and sand</b> that are <b>held together by ice.</b> The soil and ice in permafrost <b>stay frozen all year long.</b></li> <li>○ <b>Near the surface, permafrost soils also contain large quantities of organic carbon</b>—a <b>material leftover from dead plants that couldn't decompose</b>, or rot away, due to the cold.</li> <li>○ <b>Lower permafrost layers contain soils made mostly of minerals.</b></li> <li>○ <b>A layer of soil on top of permafrost does not stay frozen all year. This layer, called the active layer, thaws during the warm summer months and freezes again</b> in the fall.</li> </ul> </li> </ul>

128.	c	<p><i>Digital Payment Index</i></p> <ul style="list-style-type: none"> <li>It has been <b>constructed by the RBI</b> to measure the extent of digitisation of payments across the country.</li> <li>It is based on multiple parameters and reflects the expansion of <b>various digital payment modes accurately</b>.</li> <li>It is a first-of-its kind index to measure the spread of digital payments across the country.</li> <li>It <b>contains five broad parameters</b> that measure the deepening and penetration of digital payments in the country over different time periods. <ul style="list-style-type: none"> <li><b>Payment Enablers</b> with a weight of 25% (Internet, mobile, Aadhaar, bank accounts, participants, merchants)</li> <li><b>Payment Infrastructure – Demand-side factors</b> weight 10% (Debit and credit cards, PPIs, Customers registered in mobile and internet banking, FASTags),</li> <li><b>Payment Infrastructure – Supply-side factors</b> weight 15% (Bank branches, BCs, ATMs, PoS Terminals, QR Codes, Intermediaries),</li> <li><b>Payment Performance</b> – weight 45% (Digital payment volumes, value, unique users, paper clearing, currency in circulation, cash withdrawals) and</li> <li><b>Consumer Centricity weight</b> – 5% (awareness and education, declines, complaints, frauds, system downtime).</li> </ul> </li> <li>The <b>base period</b> of the index is <b>March 2018</b>.</li> <li>The index has been published <b>on a semi-annual basis</b> from March 2021 onwards with a lag of 4 months.</li> </ul>
129.	c	
130.	b	<ul style="list-style-type: none"> <li>The word 'Lippan' means <b>'clay' or 'dung' in local Gujarati</b>. Lippan Art is essentially <b>mud-relief work</b> that incorporates mirrors. The mural tradition artform is from the <b>Kutch region of Gujarat</b>.</li> <li>Lippan Art is practiced mainly by the <b>Rabari, Kumbhar, Marwada Harijan and Mutwa communities</b> but most Lippan artisans today trace their origins to the Kumbhar community.</li> <li>Though the work is limited mainly to the interior walls, it can be found on the <b>outer walls as well</b> of the circular adobes that these communities live in<sup>**.**</sup></li> </ul>
131.	c	<p><a href="https://www.downtoearth.org.in/blog/climate-change/greece-wildfires-how-climate-change-is-involved-and-what-we-can-do-about-it-90901">https://www.downtoearth.org.in/blog/climate-change/greece-wildfires-how-climate-change-is-involved-and-what-we-can-do-about-it-90901</a></p>
132.	c	

133.	c	
134.	c	
135.	a	
136.	c	<p><b>Horripilation</b></p> <ul style="list-style-type: none"> <li>• Feeling hair on your arms stand up on a chilly evening or felt shivers run down your spine. The colloquial name for this phenomenon is <b>goosebumps</b>. In scientific parlance, this is <b>horripilation</b>.</li> <li>• Characterised by small bumps that develop on a person's skin, underneath the hair follicles, horripilation is an involuntary reaction to cold weather.</li> <li>• It has also been recorded in animals, such as when a cat raises its hackles.</li> <li>• It is controlled by the sympathetic nervous system. Specifically, horripilation happens when the brain sends signals to tiny muscles called <b>arrector pili</b> in hair follicles causing them to contract. This is what makes the hair stand upright.</li> <li>• The most common cause of horripilation is cold air near the skin. But researchers have also documented intense emotions, such as fear, shock, anxiety, love, sexual desire and inspiration, as also having the same effect.</li> <li>• In most cases, horripilation is temporary. But if it persists, it could be a sign of a medical condition, like <b>keratosis pilaris</b>. Its symptoms include lumps that feel rough and dry and mimic goosebumps. These lumps are dead skin cells; they appear on the cheeks, bottom and front of the thighs, and the upper arms. They go away on their own or can be made to with the help of dermatological creams.</li> </ul>
137.	b	<p><b>RPF man held for killing 4 on train: What is this force, and how is it different from the GRP?</b></p> <p><i>Railway Protection Force (RPF)</i></p> <ul style="list-style-type: none"> <li>• The RPF is an armed force under the operational and administrative control of the Union Ministry of Railways, which is tasked with protecting and securing railway property, the passenger areas, and the passengers themselves.</li> <li>• The RPF was set up as a consequence of The Railway Protection Force Act, 1957, enacted by Parliament "to provide for the constitution and regulation of an armed force of the Union for the better protection and security of railway property and for matters connected therewith". The Act came into force after Parliament passed significant modifications to it through The Railway Protection Force (Amendment) Act, 1985 (Act No. 60 of 1985). Rules under the Act were notified in 1987.</li> <li>• The RPF is led by a director-general.</li> </ul>

*How was the RPF created, and with what reasons?*

- RPF has its origins in the 'Watch and Ward' set-up of the private railway companies during the time of the British Raj. "In the mid-forties, the portion of the Watch and Ward staff which remained under the control of these (private) Railways, was found inadequate to control thefts of their assets and consignments,"
- This led to the enactment of the RPF Act, 1957, which, after the amendments of 1985, "gave the RPF exposure to the other forces. It gained in maturity as it was regularly being deployed for assisting the State Police Forces". In 2003, according to the website, the RPF Act and Railways Act were modified, and "the RPF partially took up the duties of escorting of passenger trains and access control at the railway stations".

*What is the Government Railway Police (GRP)?*

- The GRP is a part of the district police force, reporting to the state government. It works alongside the RPF, and should, under ideal circumstances, complement and strengthen its operations.
- According to the Indian Railways website, "The Government Railway Police are responsible generally for the prevention and detection of crime on railways". But their remit does not extend to protecting Railway property: "The protection of goods sheds, goods wagons at stations and parcel offices is not duty of the Railway Police, but of the Railway Protection Force of the Railway," says the website.

*GRP's job?*

According to the Railways website, "the duties of the Government Railway Police as regards the areas in their jurisdiction correspond in general to those of the District Police in the areas under their charge". In addition, the GRP has some "special duties", including:

(i) to maintain order at railway stations and in trains, wherein "order" refers to "control of passenger traffic within station premises, especially on platforms, in booking offices, waiting halls, at entrance and exit gates" etc., "control of vehicular and other traffic in station precincts", "maintenance of order in passenger trains halted at stations and prevention of overcrowding in carriages", "arrest of persons guilty of committing nuisance", etc., and "to render assistance to railway officers and to the traveling public in so far as the rendering of such assistance is compatible with their own duties as Police officers".

The Railways website says that "with the introduction of amendment in RPF and Railways Act, implications for GRP are:

- 36,600 GRP personnel of the country will be able to focus their attention on heinous crimes specially rape in trains and other crimes against women.
- While GRP will continue to do policing for Railways, it will get

		<p>more time to concentrate on investigation of heinous crimes.</p> <ul style="list-style-type: none"> <li>• GRP can be utilised for track patrolling and for effective investigation in cases of sabotage as defined in sections 150, 151 &amp; 152 of The Railways Act.”</li> </ul> <p><i>How do the RPF and GRP work together</i></p> <p>As the Government Railway Police (GRP) is organised on provincial lines, there is no continuity of jurisdiction. For instance, for a distance of 70 kilometres involving travel time of about an hour, between Ambala to Kalka, four GRP units look after a passenger. A seamless line of control and a single chain of command is lacking because of the boundaries of States and therefore, of their Police Forces.”</p> <p>The RPF points to the “dilemma” of passengers in the current system: “With a multiplicity of security agencies operating on the Railway i.e. the Railway Protection Force (RPF), the Government Railway Police (GRP) and the District Police, he is confused and not sure whom to report to in case of a crime on the railway. For an ordinary passenger every man in khaki on the platform is a policeman.”</p>
138.	b	<p><i>Homologation</i></p> <p>Homologation is the process of certifying if a track meets certain quality parameters and safety standards to host a MotoGP race. There are multiple checks run on the circuit by the FIM, which is the governing body for MotoGP, in the months leading up to a race before certifying the track.</p> <p>“The FIM, which takes care of the homologation, have visited the BIC a couple of times along with the Dorna Sports team. They will visit again in the summer to see how the works are going,” said Carlos. At the start of the season, MotoGP organisers had to cancel the ninth race of the season at Kazakhstan as the homologation process for the track outside Almaty was not completed in time.</p>
139.	b	
140.	d	<p><b>Tail strike</b></p> <p>— <b>A tail strike refers to an incident where the tail of an aircraft hits the ground or strikes any other stationary object.</b> While tail strikes can occur during takeoff, a majority happen during the landing of an aircraft. According to Airbus statistical data, over 65 per cent of tail strikes happen during landings.</p> <p>— <b>Tail strikes can cause significant damage to the aircraft, with major repairs needed to restore the plane’s structural integrity.</b> Even in cases where the damage is not major or immediately obvious, thorough inspections are carried out before the aircraft is declared fit to fly again.</p> <p><b>What causes tail strikes?</b></p> <p>— While modern aircraft are fitted with a whole gamut of systems to aid pilots in flying aircraft and reduce the probability of human error, most tail strikes can be attributed to mistakes made by pilots.</p>

— Simply put, tail strikes occur when the pitch attitude of the aircraft (more on that, in a moment) – while taking off or landing – is steep enough for the tail of the craft to hit the ground. Aircraft, depending on their size, have different “tail strike margins” – the longer the aircraft, more prone it is to a tail strike as the rear of the plane juts out further behind the rear undercarriage.

#### **Aircraft's attitude**

— An aircraft in flight is free to rotate in three dimensions: *yaw*, nose left or right about an axis running up and down; *roll*, rotation about an axis running from nose to tail; and *pitch*, nose up or down about an axis running from wing to wing. Look at the animation below for more clarity. These are collectively known as an aircraft's *attitude*.

— **Tail strikes are most impacted by the aircraft's pitching motion. A positive pitching motion raises the nose of the aircraft and lowers the tail. Tail strikes are caused by such a motion being executed improperly during take off and landing.**

#### **Tail strikes during take offs**

There are a few different reasons why tail strikes occur during take off.

- **Incorrect takeoff speeds**
- **Poor rotation technique**
- **Incorrect centre of gravity, or mistrimmed stabiliser**

#### **Tail strikes during landing**

— Tail strikes during landing are more common, and generally also cause more damage. This is because, during landing, if the tail strikes the ground before the landing gear, it absorbs a majority of the energy of the impact of the aircraft with the ground. Such tail strikes are caused by unstable approaches.

— A stable approach is one where the aircraft approaches the runway at the right speed and with the correct glide ratio – the distance of forward travel divided by the altitude lost in that distance. Unstable approaches can cause tail strikes due to a few different reasons.

- **Too low an approach speed**
- **Too high or too low of a landing flare**
- **Incorrect handling during crosswinds**

#### **How to prevent tail strikes?**

— Modern aircraft also have sophisticated software which detect the tail clearance and adjust control accordingly. For instance, Primary Flight Computers (PFCs) of the Boeing 787s monitor the tail clearance at all times – below a certain threshold, the aircraft automatically adjusts the controls without direct input from the pilot.

— However, the most critical component to avoid tail strikes remain pilots themselves. Proper training of pilots and rigorous implementation of correct flight procedures are the single most important factor to avoid tailstrikes. All the common reasons for tail strikes described above can be mitigated by pilots, whether it be in their preflight preparations or inflight handling of the aircraft.



141.	b	<ul style="list-style-type: none"> <li>• Kelp forests are underwater ecosystems <b>formed in shallow water by the dense growth of several different species.</b></li> <li>• Kelp are <b>large brown algae that live in cool</b>, relatively shallow waters close to the shore.</li> <li>• They attach to the <b>seafloor and eventually grow to the water's surface and rely on sunlight to generate food and energy</b>, kelp forests are always coastal and require shallow, relatively clear water.</li> <li>• They provide underwater <b>habitats to hundreds of species of invertebrates</b>, fishes, and other algae and have great ecological and economic value.</li> </ul>
142.	c	<p>The nasal cavity of warm-blooded animals houses a complex scroll-like structure made of thin bony plates called the nasal, or respiratory, turbinate.</p> <p>Nasal turbinates are found only in warm-blooded creatures. They are responsible for regulating heat and moisture exchange during respiration.</p>
143.	a	<p><i>Hubble Tension and Hubble Constant</i></p> <ul style="list-style-type: none"> <li>• Astrophysicists have known about the expansion of the Universe for about 100 years. However, scientists disagree about the rate of the expansion, a problem known as the "<b>Hubble tension.</b>" The problem results from a disagreement between two methods used to measure the Hubble constant.</li> <li>• One of the major problems of cosmology has been to <b>determine the value of the Hubble constant.</b> The tension arises because <b>the various methods applied to determine its value have yielded different values of what, in the end, must be a single number.</b></li> <li>• The Hubble constant (or Hubble–Lemaître constant) is the name given to the <b>present expansion rate of the Universe.</b></li> <li>• The Hubble constant (H<sub>0</sub>) is named after the astrophysicist who, together with Georges Lemaître, discovered the phenomenon in the late 1920s.</li> <li>• It's measured in <b>kilometers per second per megaparsec (km/s/Mpc)</b>, where 1 Mpc is around 3.26 million light years.</li> <li>• The current best direct measurement of the Hubble constant is 73.8 km/sec/Mpc (give or take 2.4 km/sec/Mpc including, both random and systematic errors), <b>corresponding to a 3% uncertainty.</b></li> </ul>
144.	c	<p>Copper Age</p> <ul style="list-style-type: none"> <li>• The Chalcolithic period, also known as the <b>Copper Age.</b></li> <li>• It describes a <b>transitional period</b> in human prehistory between the Neolithic period (New Stone Age) and the Bronze Age.</li> <li>• It is characterized by the use of both stone tools and the beginning of metalworking, specifically the utilization of copper.</li> </ul>

		<ul style="list-style-type: none"> <li>• One of the defining characteristics of this period is the simultaneous use of stone tools and early metal objects, primarily copper.</li> <li>• In India, it spanned around <b>2000 BC to 700 BC</b>.</li> <li>• This culture was mainly <b>seen in Pre-Harappan phase</b>, but at many places it extended to Post-Harappan phase too.</li> <li>• The people were <b>mostly rural and lived near hills</b> and rivers.</li> <li>• The Chalcolithic culture corresponds to the farming communities, namely Kayatha, Ahar or Banas, Malwa, and Jorwe.</li> <li>• The people of this age started doing <b>animal husbandry and agriculture</b>.</li> <li>• Apart from wheat, rice, they used to grow pulse crops like millet, lentil, urad and moong etc.</li> </ul>
145.	b	
146.	b	<p><b>Abaucin</b></p> <ul style="list-style-type: none"> <li>• <b>About:</b> <ul style="list-style-type: none"> <li>○ Abaucin is a compound that shows useful activity as a <b>narrow-spectrum antibiotic</b>.</li> <li>○ It is effective against <i>Acinetobacter baumannii</i>.</li> </ul> </li> <li>• <b>Discovery:</b> <ul style="list-style-type: none"> <li>○ Abaucin was discovered with the assistance of <b>AI using a machine-learning model approach</b>.</li> <li>○ Network was trained with a dataset of ~7,500 molecules screened for inhibiting <i>Acinetobacter baumannii</i> growth.</li> <li>○ The network predicted structurally different molecules with activity against <i>A. baumannii</i>, including abaucin.</li> <li>○ Abaucin was experimentally validated and found to have potent antibacterial activity.</li> </ul> </li> <li>• <b>Mechanism of Action:</b> <ul style="list-style-type: none"> <li>○ Abaucin disrupts the <b>normal function of the CCR2 protein in bacteria</b>.</li> <li>○ This disruption <b>hinders the movement of certain molecules</b> inside the bacteria, preventing them from <b>reaching the outer membrane</b>.</li> <li>○ As a result, the <b>growth of <i>Acinetobacter baumannii</i> is inhibited, reducing its ability to cause infections</b>.</li> </ul> </li> </ul>
147.	b	<p><b>Green promise: Silver cockscomb isn't a troublesome weed for Karnataka's Soliga tribe</b></p> <ul style="list-style-type: none"> <li>• For the Soligas, known for their traditional knowledge of ecology, silver cockscomb is a nutritious leafy green vegetable that grows well even on fallow land and in drought-like conditions</li> <li>• <b>Silver cockscomb</b> is a beautiful but troublesome weed. It can spread quickly and suppress the growth of other crops, affecting</li> </ul>

		<p>their yield. It also attracts insects, caterpillars, worms and moths that can harm crops.</p> <ul style="list-style-type: none"> <li>• In Karnataka's Chamarajanagara district, where silver cockscomb is referred to as <b>anne soppu</b>, farmers of the <b>Soliga tribe</b> say controlling the weed can cost up to Rs 2,000 per acre (0.4 hectare) per year. Yet they do not consider silver cockscomb a weed.</li> <li>• For the Soligas, known for their traditional knowledge of ecology, silver cockscomb is a nutritious leafy green vegetable that grows well even on fallow land and in drought-like conditions.</li> <li>• Also known as lagos spinach, the weed belongs to the Amaranthaceae family, which includes economically important plants like spinach (<i>Spinacia oleracea</i>), beetroot and quinoa. The plant is known as <i>Celosia argentea</i> in scientific lexicon, <i>kurdu</i> in Marathi and <i>pannai keerai</i> in Tamil.</li> </ul> <p><i>Healthy add-on</i></p> <ul style="list-style-type: none"> <li>• Although it is of the same family as spinach, it does not pose the same risk to kidneys. Spinach leaves are high in calcium, oxalates, vitamin K and potassium, which can impair kidney function and lead to formation of kidney stones.</li> <li>• In comparison, silver cockscomb leaves have lower levels of oxalic acid (0.2 per cent) and phytic acid (0.12 per cent), says the World Vegetable Center.</li> <li>• Though scientists are discovering the benefits of silver cockscomb now, communities worldwide have long known its usage and benefits. Believed to have originated in tropical Africa, according to the Royal Botanic Gardens, Kew, UK, silver cockscomb grows abundantly in South and Southeast Asia, Latin America and parts of the US and Australia.</li> </ul>
148.	a	<p><b>Soligas</b></p> <ul style="list-style-type: none"> <li>• Soligas are an indigenous tribe of Karnataka, inhabiting the peripheral forest areas near Biligiri Rangana Hills and Male Mahadeshwara in the Chamarajnagar district of Karnataka.</li> <li>• The Soligas were dependent on hunting and shifting agriculture traditionally.</li> <li>• They are the first tribal community living inside the core area of a tiger reserve in India to get their forest rights officially recognised by a court of law.</li> </ul>
149.	c	<ul style="list-style-type: none"> <li>• Bal Gangadhar Tilak, born on 23rd July 1856, was a <b>freedom fighter, lawyer, and educationist known as Lokmanya Tilak.</b></li> <li>• Founder of the <b>Deccan Education Society</b> in 1884, he also established the <b>Fergusson College in 1885.</b></li> <li>• Tilak emphasized the need for <b>self-rule or swarajya</b> and popularized the slogan "<b>Swaraj is my birthright and I shall have it!</b>"</li> </ul>

		<ul style="list-style-type: none"> <li>• Tilak joined the <b>Indian National Congress</b> in 1890 and played a significant role in the <b>Surat Split in 1907</b>, advocating complete independence or swarajya.</li> <li>• He propagated the <b>Swadeshi and Boycott Movement</b> to promote Indian self-reliance.</li> <li>• Tilak founded the <b>All-India Home Rule League</b> in April 1916, aiming for Hindu-Muslim unity through the Lucknow Pact in 1916.</li> <li>• Known for his newspapers <b>Kesari (Marathi) and Mahratta (English) and authored books like Gita Rhasya and Arctic Home of the Vedas.</b></li> <li>• Bal Gangadhar Tilak passed away on <b>1st August 1920</b>, leaving behind a significant contribution to India's freedom movement.</li> </ul>
150.	b	<p>A controversy surrounding the unveiling of a statue of <b>Samrat Mihir Bhoj</b>, a 9th-century ruler, in Kaithal district, Haryana, has led to a significant boycott by the Rajput community.</p> <ul style="list-style-type: none"> <li>• Mihir Bhoja or Bhoja I (836 - 885 CE) is the greatest ruler of the <b>Pratihara Dynasty.</b></li> <li>• Mihir Bhoj had made <b>Kannauj his capital.</b> He was a devotee of Vishnu, so in honor of Vishnu, he had assumed titles like Varaha and Prabhas.</li> <li>• The achievements of Mihir Bhoj have been described in his Gwalior Prashasti inscription.</li> </ul>