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Test Booklet Series

C

TEST BOOKLET

GENERAL STUDIES (P) 2026 – Test – 6327

Time Allowed: Two Hours **Maximum Marks: 200**

INSTRUCTIONS

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS BBOOKLET DOES **NOT** HAVE ANY UNPRINTED OR TURN OR MISSING PAGES OR ITEMS, ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.

2. ENCODE CLEARLY THE TEST BOOKLET SERIES **A, B, C** OR **D** AS THE CASE MAY BE IN THE APPROPRIATE PLACE IN THE ANSWER SHEET.

3. You have to enter your Roll Number on the Test Booklet in the Box provided alongside. **Do NOT** write anything else on the Test Booklet.

4. This Test Booklet contains **100** items (Questions). Each item is printed in **English.** Each item comprises four responses (answers). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response with you consider the best. In any case, choose **ONLY ONE** response for each item.

5. You have to mark all your responses ONLY on the separate Answer Sheet provided. See direction in the answers sheet.

6. All items carry equal marks. Attempt all items. Your total marks will depend only on the number of **correct responses** marked by you in the answer sheet. For **every incorrect** response **1/3rd of the allotted marks** will be deducted.

7. Before you proceed to mark in the Answer sheet the response to various items in the Test booklet, you have to fill in some particulars in the answer sheets as per instruction sent to you with your Admission Certificate.

8. After you have completed filling in all responses on the answer sheet and the examination has concluded, you should hand over to Invigilator only the answer sheet. You are permitted to take away with you the Test Booklet.

9. Sheet for rough work are appended in the Test Booklet at the end.

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE ASKED TO DO SO

1. Consider the following statements:

1. Polar bears have large ears and a long tail to reduce heat loss from these extremities.
2. Polar bears have black skin under their white fur to absorb and retain body heat.

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

2. Consider the following statements regarding Kelp Forests:

1. They are underwater ecosystems formed in deep water by the dense growth of several different species known as kelps.
2. They were also discovered in tropical waters near Ecuador.
3. Kelp populations at equatorward-range edges are particularly vulnerable to climate change.

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

3. Consider the following animals:

1. Kangaroo
2. Pangolin
3. Koala
4. Flying Squirrel

How many of the above are marsupials?

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

4. "Khido Khundi", often mentioned in the news, refers to a

(a) tribal sport from Jharkhand using bamboo sticks
(b) wrestling technique prevalent in the north-eastern states.
(c) traditional Punjabi stick-and-ball game.
(d) training tool used in early British-era cricket academies

5. With reference to India-USA relations, which of the following is ***not*** one of the 'four foundational agreements' as they are known?

(a) Comprehensive Economic Partnership Agreement (CEPA)
(b) Communications Compatibility and Security Agreement
(c) Industrial Security Agreement
(d) Logistics Exchange Memorandum of Agreement

6. In the context of "Mangrove forests", consider the following statements:

1. Mangroves cannot survive prolonged periods of freezing temperatures.
2. West Bengal has the largest area of mangroves in India.
3. All trees of Mangrove forests can grow in areas with low-oxygen soil.

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

7. The term 'Pioneer Species', sometimes seen in the context of ecology, refers to:

(a) Species that dominate the final stage of ecological succession in a stable ecosystem

(b) Invasive species introduced by humans into new ecosystems

(c) Species that are the first to colonise barren or disturbed environments during ecological succession

(d) Species that migrate seasonally between different ecosystems for breeding

8. Which of the following are included in the list of UNESCO's World Heritage Sites?

1. Kaziranga National Park
2. Keoladeo National Park
3. Manas Wildlife Sanctuary
4. Western Ghats

Select the correct answer using code given below.

(a) 1 and 3 only

(b) 2 and 4 only

(c) 1, 2 and 4 only

(d) 1, 2, 3 and 4

9. Recently, Vande Mataram completed 150 years, and a year-long national commemoration has begun. In this context, consider the following statements:

1. The song was originally written in Sanskrit.
2. It was adopted as the national song of India in 1950.

Which of the above statements is/are correct?

(a) 1 only

(b) 2 only

(c) Both 1 and 2

(d) Neither 1 nor 2

10. Consider the following pairs:

Wildlife Sanctuary		**State**
1. Burachapori Wildlife Sanctuary	:	West Bengal
2. Khijadiya Wildlife Sanctuary	:	Uttar Pradesh
3. Fudam Wildlife Sanctuary	:	Rajasthan
4. Fakim Wildlife Sanctuary	:	Nagaland

How many of the above pairs are correctly matched?

(a) Only one

(b) Only two

(c) Only three

(d) All four

11. Consider the following Biosphere Reserves in India:

1. Gulf of Mannar Biosphere Reserve
2. Pachmarhi Biosphere Reserve
3. Manas Biosphere Reserve
4. Nokrek Biosphere Reserve

How many of the above are part of UNESCO's World Network of Biosphere Reserves?

(a) Only one

(b) Only two

(c) Only three

(d) All four

12. Consider the following statements regarding the Jerdon's Courser:

1. It is a nocturnal bird.
2. It is classified as "Critically Endangered" by the International Union for Conservation of Nature.
3. Silent Valley National Park is the only natural habitat of Jerdon's Courser in India.

How many of the above statements are correct?

(a) Only one

(b) Only two

(c) All three

(d) None

13. Consider the following statements:

1. In Protected Forests, all activities are prohibited unless permitted.
2. In Reserved Forests, all activities are permitted unless prohibited.
3. Both Protected Forests and Reserved Forests are notified under the Biological Diversity Act, 2002.

How many of the above statements are correct?

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

14. Consider the following protected areas in India:

1. Nandur-Madhameshwar Wildlife Sanctuary
2. Papikonda National Park
3. Coringa Wildlife Sanctuary
4. Kawal Tiger Reserve

How many of the above are located in Godavari basin?

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

15. With reference to the Kharai Camels, consider the following statements:

1. Kharai camels are a unique breed found mainly in the coastal areas of Gujarat.
2. They are the only known camels in the world that can swim in seawater.
3. The breed is listed as a threatened animal by the IUCN.

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

16. Consider the following statements:

1. Mushrooms belong to the kingdom Fungi.
2. Some mushroom species form mycorrhizal associations with trees.
3. Mushrooms are capable of photosynthesis.

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

17. Recently, the fifth World Congress of Biosphere Reserves (WCBR) was held. In this context, consider the following statements:

1. WCBR is held once in every five years under UNESCO's MAB Programme.
2. The 5th WCBR was the first such event to be held in Asia.
3. The MAB Council, the governing body of MAB programme, usually meets once a year.

How many of the above statements are correct?

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

18. With reference to 'IUCN categories of Protected areas', consider the following pairs:

Category		*Feature*
1. Category I	:	National Park
2. Category II	:	Protected Landscape
3. Category III	:	Natural Monument
4. Category IV	:	Habitat/Species Management Area

Which of the pairs given above are **not** correctly matched?

(a) 1 and 2 only

(b) 2, 3 and 4 only

(c) 1, 2 and 4 only

(d) 1, 2, 3 and 4

19. Consider the following statements regarding Ricin exposure:

1. Ricin can cause death if a person ingests it, injects it, or inhales it.
2. Ricin stops protein synthesis in cells by binding to ribosomes.

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

20. Consider the following statements:

Statement-I: India ranked second globally in forest carbon sequestration.

Statement-II: India has reached 2.29 billion tonnes of additional carbon sink as against the target of 2.5 to 3.0 billion tonnes by 2030.

Which one of the following is correct in respect of the above statements?

(a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I

(b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I

(c) Statement-I is correct but Statement-II is incorrect

(d) Statement-I is incorrect but Statement-II is correct

21. Which of the following best describes the term 'Biodiversity Coldspot'?

(a) An area within the tropics that exhibits exceptionally high genetic diversity among species.

(b) It is a biogeographic region with a significant reservoir of biodiversity that is threatened with destruction.

(c) A region with relatively low species richness or endemism, often due to harsh climatic or geographic conditions.

(d) A marine zone designated for coral restoration under the UN Ocean Decade initiative.

22. With respect to Van (Sanrakshan Evam Samvardhan) Rules, 2023, consider the following statements:

1. The Rules have been notified under the Forest Conservation Act,1980.
2. The Rules prescribe prior approval of the Central government for the use of forest land for non-forest purposes.

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

23. Recently, the international conference on the urban cooperative credit sector, 'Co-Op Kumbh 2025' was held in New Delhi. With reference to this, consider the following statements:

1. They are registered as cooperative societies under the respective State Cooperative Societies Acts or the Multi-State Cooperative Societies Act, 2002.
2. They have to allocate 75% of their loans to the priority sector lending.

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

24. The terms Sarana, 'Mauhak, Kovil kadu' are often used in the context of environment conservation. What are they?

(a) sacred groves
(b) biodiversity heritage sites
(c) invasive species
(d) keystone species

25. Which of the following protected areas are located in Pachmarhi Biosphere Reserve?

1. Satpura National Park
2. Bori Wildlife Sanctuary
3. Bandhavgarh National Park

Select the correct answer using code given below.

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

26. Consider the following statements regarding infrastructure development in India:

1. The Western Dedicated Freight Corridor (WDFC) stretches Dadri in Uttar Pradesh to Jawaharlal Nehru Port Terminal in Maharashtra.
2. Vadhavan port in Maharashtra will be India's largest container port once operationalized.
3. The Digital Highway Initiative involves implementing approximately 10,000 km of optic fibre cable infrastructure.

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

27. Which of the following statements is ***not*** correct about the cold-water corals?

(a) Cold-water corals live in deep parts of the ocean where sunlight cannot reach them.
(b) They form associations with zooxanthellae similar to tropical corals.
(c) They rely on nutrient upwelling from deep-sea currents.
(d) The Rost Reef off the coast of Norway is the world's largest cold-water coral reef

28. Consider the following animals:

1. Octopus
2. Snow leopard
3. Hedgehog

To avoid detection by predators or prey, which of the above animals primarily rely on camouflage as a defence strategy?

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

29. Who among the following is authorised to permit any person to hunt any wild animal which has become dangerous to human life?

(a) Director of Wild Life Preservation
(b) Principal Chief Conservator of Forests
(c) Chief Wildlife Warden
(d) National Board for Wild Life

30. Consider the following statements:

1. Some bacteria can grow in near-boiling hydrothermal vents.
2. Some fungi can grow in environments with temperatures below the freezing point of water.
3. No virus can replicate in a highly acidic environment with a pH below 2.

How many of the above statements are correct?

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

31. Which of the following are herbivores?

1. Indian rhinoceros
2. Indian Pangolin
3. Gangetic dolphins
4. Sea cows

Select the correct answer using the code given below.

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

32. With regards to the International Big Cat Alliance (IBCA), consider the following statements:

1. The Assembly of the International Big Cat Alliance is the apex decision-making body which comprises representatives from each Member Country.
2. The meeting of the Assembly of IBCA will be held at least once in a year.
3. Director General of the International Big Cat Alliance acts as President of the Assembly.

How many of the statements given above are correct?

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

33. Consider the following statements regarding the EnviStats India 2025 report:

1. It is released by the Ministry of Environment, Forest and Climate Change (MoEFCC).
2. It indicates a clear long-term downward trend in total annual rainfall across India from 2001 to 2024.
3. The report records a rise in India's annual mean temperature between 2001 and 2024.

Which of the above statements is/are correct?

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

34. Which of the statements given above is ***not*** correct regarding Digital Gold?

1. Digital gold refers to buying gold without physically possessing the precious metal.
2. The price of digital gold is linked to that of physical gold.
3. These products are regulated as commodity derivatives by SEBI.

Select the correct answer using the code given below.

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

35. Which of the following area have been identified as Critically Vulnerable Coastal Areas (CVCA) under Coastal Regulation Zone notification?

1. Sundarban region
2. Gulf of Kutchh
3. Coringa
4. Achra-Ratnagiri

Select the correct answer using code 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

36. Arrange the following States in descending order of the strength of their Legislative Assemblies (Vidhan Sabhas):

1. Bihar
2. West Bengal
3. Tamil Nadu
4. Rajasthan

Select the correct answer using the code given below.

(a) 2-1-3-4
(b) 1-2-3-4
(c) 2-3-1-4
(d) 1-3-2-4

37. Consider the following pairs:

Biodiversity Heritage Site		**State**
1. Silachari Caves	**:**	West Bengal
2. Haldir Char Island	**:**	Tripura
3. Mandasaru	**:**	Odisha
4. Dialong Village	**:**	Manipur

How many of the above pairs are correctly matched?

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

38. It is the largest tiger reserve in our country in terms of area. This reserve is located in the Nallamala Hills, an offshoot of the Eastern Ghats. It is connected to Seshachalam Biosphere Reserve through forested patches and three protected areas. It is

(a) Kawal Tiger Reserve
(b) Indravati Tiger Reserve
(c) Palamau Tiger Reserve
(d) Nagarjunsagar Srisailam Tiger Reserve

39. With reference to the recently concluded ICC Women's Cricket World Cup 2025, consider the following statements:

1. The first edition of the Women's Cricket World Cup was held before the first edition of the Men's Cricket World Cup.
2. Australia has won the most women's cricket World Cup titles.
3. India qualified for the world cup final for the first time.

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

40. With reference to the Golden Mahseer, consider the following statements:

1. Golden Mahseer are large-bodied freshwater species found mainly in fast-flowing rivers.
2. The Golden Mahseer inhabits rivers from the Himalayan foothills to southern India.
3. The Golden Mahseer is listed as Endangered under the IUCN Red List.

How many of the statements given above are correct?

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

41. The Framework for Management Effectiveness Evaluation (MEE) for assessment of protected areas was developed by which one of the following organizations?

(a) World Resources Institute
(b) The World Wide Fund for Nature
(c) The International Union for Conservation of Nature
(d) The United Nations Environment Programme

42. Consider the following pairs:

Ramsar site		**State**
1. Ranganathittu	**:**	Tamil Nadu
2. Kabartal	**:**	Bihar
3. Ropar	**:**	Himachal Pradesh
4. Parvati Arga	**:**	Uttar Pradesh

How many pairs given above are correctly matched?

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

43. With reference to Indian national symbols, consider the following pairs:

Title		***Species***
1. National Animal	**:**	Lion
2. National Aquatic Animal	**:**	Ganges River Dolphin
3. National Heritage Animal	**:**	Horse

How many of the pairs given above are correctly matched?

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

44. How does a Wildlife Sanctuary differ from a National Park?

1. No grazing of any livestock shall be permitted inside a National Park, while in a Sanctuary, grazing is regulated.
2. Wildlife Sanctuaries can be notified by both the State and Central Governments; however, National Parks can be notified by the Central Government only.
3. To alter the boundary of a National Park, the recommendation of the National Board for Wildlife is required, whereas for a Wildlife Sanctuary, it is not required.

How many of the above statements are correct?

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

45. In the context of plant species protected under Schedule III of the Wildlife (Protection) Amendment Act, 2022, which of the following are included?

1. Indian sandalwood
2. Red Vanda
3. Kuth
4. Pitcher Plant

Select the correct answer using the code given below:

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

46. Consider the following statements;

1. Like Dolphins, Dugongs come to the surface to breathe.
2. Unlike Dolphins, Dugongs release breathing sounds like musical notes.
3. Unlike Seals, Dugongs never come up on the land.

Which of the statements given above is/are correct?

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

47. Which of the following are nitrogen-fixing species of plants?

1. Alfalfa
2. Amaranth
3. Soybean
4. Clover
5. Maple
6. Lettuce

Select the correct answer using the code given below.

(a) 1, 3 and 4 only
(b) 1, 3, 5 and 6 only
(c) 2, 4, 5 and 6 only
(d) 1, 2, 4, 5 and 6

48. Consider the following pairs:

Type of Diversity		***Feature***
1. Alpha diversity	:	within a particular habitat or ecosystem
2. Beta diversity	:	total landscape diversity across regions
3. Gamma diversity	:	between ecosystems (species turnover)

How many of the pairs given above are correctly matched?

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

49. Consider the following tree species:

1. Jackfruit (Artocarpus heterophyllus)
2. Mahua (Madhuca indica)
3. Teak (Tectona grandis)
4. Indian Rosewood (Dalbergia sissoo)

How many of the above are deciduous tree species?

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

50. Consider the following pairs based on the State Birds of India:

Bird		**State**
1. Blood Pheasant	:	Sikkim
2. Sarus Crane	:	Rajasthan
3. Great Hornbill	:	Uttarakhand
4. Great Flamingo	:	Gujarat

How many of the above pairs are correctly matched?

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

51. Consider the following statements regarding State Wetland Authority?

1. It is constituted under Wetlands (Conservation and Management) Rules, 2017.
2. It is headed by the Chief Ministers of the respective states.

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

52. Which of the following marine animals are unique to Indian waters?

1. Olive Ridley Turtle
2. Dugong
3. Indian Ocean Humpback Dolphin
4. Ganges Shark

Select the correct answer using the code given below.

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

53. In India, which of the following regions are known for coral reefs?

1. Andaman and Nicobar Islands
2. Gulf of Mannar
3. Gulf of Kutch
4. Lakshadweep Islands
5. Palk Bay

Select the correct answer using the code given below.

(a) 1, 2 and 3 only
(b) 4 and 5 only
(c) 1, 2, 3 and 4 only
(d) 1, 2, 3, 4 and 5

54. Which of the following is/are an example of Ex-situ conservation?

1. Biosphere reserves
2. Botanical Garden
3. Horticultural gardens
4. Seed banks
5. Sanctuaries

Select the correct answer using the code given below.

(a) 1, 2, 3 and 4 only
(b) 2, 3 and 4 only
(c) 1, 2, 4 and 5 only
(d) 1, 2, 3, 4 and 5

55. Which of the following best describes the primary objective of the Indian Railways' newly introduced AI-based system 'DRISHTI'?

(a) To monitor passenger density at railway stations using facial recognition.
(b) To detect and alert about tampered or unlocked wagon doors in freight trains.
(c) To predict train delays using weather and traffic data.
(d) To automate freight loading and unloading operations.

56. Consider the following:

1. Critical Wildlife Habitats
2. Critical Tiger Habitats
3. Eco-Sensitive Zones

How many of the above can be established under the Wildlife Protection Act, 1972?

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

57. With reference to NASA's ESCAPADE mission, consider the following statements:

1. It aims to explore Jupiter's intense radiation belts using a pair of landers.
2. It is scheduled to launch on SpaceX's Falcon Heavy rocket.

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

58. Which of the following States/U.T of India has the highest percentage of forest cover with respect to total geographical area?

(a) Mizoram
(b) Madhya Pradesh
(c) Andaman & Nicobar Island
(d) Lakshadweep

59. The Burevestnik missile, recently tested by Russia, is unique because it,

(a) Uses a nuclear warhead and chemical fuel-based propulsion
(b) Uses a nuclear-powered propulsion system with unlimited range potential
(c) Uses a solar-powered propulsion system for stealth operation
(d) Uses a scramjet engine designed exclusively for hypersonic atmospheric flight

60. Consider the following pairs:

Coastal Area		***Coastal Regulation Zone (CRZ)***
1. Developed land areas in Municipalities	:	CRZ-I
2. Sea Grass beds	:	CRZ-II
3. Sea bed area beyond Low Tide Line	:	CRZ-III

How many of the above pairs are correctly matched?

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

61. In the context of indicator species, which of the following are considered as indicator species?

1. Frogs
2. Lichen
3. Crayfish
4. Dragonflies

Select the correct answer using the code given below.

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

62. Consider the following statements regarding the Tropical Forests Forever Facility (TFFF):

1. It is a $125 billion investment fund that pays countries in return for protecting their forests.
2. India is set to join the Tropical Forests Forever Facility (TFFF) as an Observer.

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

63. Tor putitora, Tor khudree, and Tor mussullah are species of:

(a) Freshwater prawns
(b) Mahseer fish
(c) River turtles
(d) Crocodile

64. Consider the following statements regarding the Dumpsite Remediation Accelerator Programme (DRAP):

1. It is a year-long, targeted initiative under Swachh Bharat Mission-Urban 2.0
2. It is launched under the Ministry of Environment, Forest and Climate Change.
3. It aims to achieve the goals of Lakshya Zero Dumpsites by September 2026.

Which of the statements given above is/are correct?

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

65. Consider the following crops:

1. Apple
2. Kiwi
3. Watermelon
4. Sugarcane
5. Chickpea

How many of the above plant species essentially rely on pollinators for reproduction and crop yield?

(a) Only two
(b) Only three
(c) Only four
(d) All five

66. Which of the following became the first country to impose a generational ban on tobacco?

(a) India
(b) China
(c) Maldives
(d) Nepal

67. Which of the following mammals is/are Critically Endangered Mammals?

1. Namdapha Flying Squirrel
2. Kondana Rat
3. Malabar Civet
4. Great Indian Bustard
5. Indiana Bat

Select the correct answer using the code given below.

(a) 1, 2, 4 and 5 only
(b) 1 and 3 only
(c) 1, 3 and 4 only
(d) 2, 3, 4 and 5 only

68. "Located in the south western part of the Loktak lake, the park is the last remaining natural habitat of the Sangai. It is the only floating park in the world.One can also see other animals like the Otter, Hog Deer, jungle cat etc. apart from migratory birds and a host of water fowls."

The above paragragh best describes which of the following national park of India?

(a) Keibul Lamjao National Park
(b) Nokrek National Park
(c) Balphakram National Park
(d) Phawngpui National Park

69. Consider the following pairs:

Endemic Species	***State***
1. Narcondam Hornbill	Assam
2. Pygmy Hog	Tamil Nadu
3. Bonnet Macaque	Kerala

How many of the pairs given above are correctly matched?

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

70. Consider the following statements about the Eighth Central Pay Commission (CPC):

1. It is chaired by Justice Ranjana Prakash Desai.
2. It requires the Commission to consider the overall fiscal position of the Centre and States.
3. It directs the Commission to review pay parity between Central Government employees, Public Sector Undertakings (PSUs), and the private sector.

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

71. Consider the following statements regarding altermagnetism which was recently in the news:

1. A form of magnetism with zero net magnetic moment (no external magnetization).
2. Altermagnetism has the potential to be included in advanced electronics and data storage

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

72. Which among the following is the highest Ramsar site in the world and also the habitat and breeding ground of Black-necked Crane?

(a) Tso Kar wetland
(b) Tsomoriri lake
(c) Chandertal wetland
(d) Hokera wetland

73. With reference to biodiversity statistics of India, consider the following statements:

1. India is a megadiverse country that accounts for 20% of world's all recorded species.
2. 6 Out of 34 globally identified biodiversity hotspots are found in India.

Which of the statements given above is/are correct?

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

74. Consider the following statements with respect to Convention on the Conservation of Migratory Species (CMS):

1. It is an intergovernmental treaty, concluded under the aegis of the United Nations Environment Programme.
2. Central Asian Flyway initiative established under CMS to protect the migratory corridors and their species.
3. India has been a signatory to this Convention.

How many of the above statements are correct?

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

75. Consider the following activities:

1. Stone quarrying
2. Felling of trees
3. Horticulture
4. Establishment of resorts

How many of the above activities are prohibited in Eco Sensitive zones?

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

76. Consider the following statement:
"These are large marine invertebrates which feed on coral as adults and with their digestive enzymes, they convert coral tissue into a coral soup, thereby damaging coral reefs".
Which among the following species is described in the above passage?
(a) Goldfish
(b) Tuna
(c) Catfish
(d) Crown of Thorns Starfish

77. A centuries-old ritual festival is celebrated annually in the twin villages of Saloor–Dungra in Chamoli district during Baisakhi. Recognised by UNESCO in 2009 as part of the Intangible Cultural Heritage of Humanity, the festival symbolises the link between man, nature, and the divine.
Which of the following festivals is being described in the above passage?
(a) Nanda Devi Raj Jat Yatra
(b) Bagwal Festival (Devidhura)
(c) Ramman Festival
(d) Harela

78. Consider the following statements:
Statement-I: World Wetlands Day is observed on 22 March every year worldwide.
Statement-II: World Wetlands Day is observed to commemorate the signing of the Ramsar Convention on Wetlands of International Importance in 1971.
Which one of the following is correct in respect of the above statements?
(a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
(b) Both Statement-I and Statement-II are correct but Statement-II is not the correct explanation for Statement-I
(c) Statement-I is correct but Statement-II is incorrect
(d) Statement-I is incorrect but Statement-II is correct

79. How many of the following protected areas are defined under the Wildlife Protection Act, 1972?
1. Conservation Reserves
2. Tiger Reserves
3. Biosphere reserves
4. Wildlife sanctuaries
5. Sacred groves

Select the correct answer using the code given below.
(a) Only two
(b) Only three
(c) Only four
(d) All five

80. Punatsangchhu-I Hydroelectric Project, recently in the news, is being developed in collaboration between India and which country?
(a) Myanmar
(b) Bhutan
(c) Nepal
(d) Cambodia

81. Which one of the following ecological features best characterises biodiversity hotspots?
(a) Regions of the tropical areas with high rainfall.
(b) Regions with exceptionally high species richness and endemism.
(c) Marine zones with high productivity and fish population density.
(d) Regions that are designated by national governments under convention on biological diversity.

82. A recent news report highlighted the cloning of a pet animal using biotechnology originally developed for creating "Dolly the Sheep."

In this context, which of the following best describes the scientific process used in animal cloning?

(a) Transferring the nucleus of a somatic cell into an egg cell whose nucleus has been removed.
(b) Editing defective genes in embryos using CRISPR-Cas9.
(c) Creating multiple copies of DNA fragments through polymerase chain reaction (PCR).
(d) Inducing genetic mutation in reproductive cells through radiation.

83. A rare case of a rodent-borne viral disease was recently reported in India after the death of an African elephant named Shankar at the Delhi Zoo. The virus, known to infect pigs and zoo animals worldwide, spreads through food or water contaminated with rodent excreta. No vaccine currently exists for this acute disease, which often shows no visible symptoms before sudden death.

Which of the following diseases best fits the description above?

(a) Leptospirosis
(b) Encephalomyocarditis Virus (EMCV) infection
(c) Plague
(d) Anthrax

84. Nauradehi Wildlife Sanctuary, the recently identified Cheetah home, is in:

(a) Maharashtra
(b) Assam
(c) Uttar Pradesh
(d) Madhya Pradesh

85. The organisms 'Silverfish, Dragonfly, and Cicada' are:

(a) Fish
(b) Birds
(c) Insects
(d) Reptiles

86. Which of the following releases Global Climate Risk Index?

(a) UNFCCC
(b) Germanwatch
(c) IUCN
(d) WHO

87. Consider the following animals:

1. Indian squirrel
2. Earthworm
3. Marmot

How many of the above animals predominantly construct their habitat through burrowing behaviour?

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

88. Consider the following:

1. Trees and shrubs
2. Aerial Roots
3. Plants tolerant to high temperature
4. Halophytic plants

How many of the above are found in mangrove ecosystem?

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

89. Consider the following organisms:

1. Earthworms
2. Vultures
3. Dung beetles
4. Jellyfish
5. Millipedes

How many of the above are classified as detritivores?

(a) Only two
(b) Only three
(c) Only four
(d) All five

90. Consider the following statements regarding melanistic tigers:

1. Melanism in tigers results from genetic mutations causing excessive dark pigmentation.
2. The Sundarbans Tiger Reserve in West Bengal is home to such melanistic tigers.
3. Melanistic tigers are listed under Schedule I of the Wildlife Protection Act, 1972.

How many of the statements given above are correct?

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

91. With respect to Mangrove Initiative for Shoreline Habitats & Tangible Incomes (MISHTI) scheme, consider the following statements:

1. MISHTI aims to conserve and restore the mangrove ecosystem across 9 States and 3 Union Territories of India.
2. Under the MISHTI scheme, the government is providing financial assistance to local communities to undertake mangrove plantation activities.
3. The project cost of the MISHTI scheme is completely borne by the Government of India.

How many of the statements given above are correct?

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

92. Consider the following statements with respect about India State of Forest Report (ISFR) 2023:

1. As per ISFR 2023, Odisha has the largest mangrove area in India.
2. As per ISFR 2023, total mangrove cover in the country accounts for 15% (fifteen percent) of the country's total geographical area.

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

93. Consider the following:

1. USA
2. China
3. India
4. Russia
5. Japan

How many of the above are members of the Asia-Pacific Economic Cooperation (APEC)?

(a) Only two
(b) Only three
(c) Only four
(d) All five

94. Consider the following statements regarding Chess:

1. The title of Grandmaster is awarded by the International Olympic Committee.
2. As of November 2025, India has more than 100 Chess grandmasters.

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

95. Pin Valley National Park and Kibber Wildlife Sanctuary are the part of which among the following Biosphere Reserves of India?

(a) Cold Desert Biosphere Reserve
(b) Nanda Devi Biosphere Reserve
(c) Simlipal Biosphere Reserve
(d) Achanakmar-Amarkantak Biosphere Reserve

96. Consider the following statements with respect to Conservation Reserves:

1. These are notified by the State Government.
2. These are declared in any private or community land, not comprised within a National Park or a Wildlife Sanctuary.
3. The rights of people living inside a Conservation Reserve are not affected after its declaration.

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

97. Consider the following statements about GSAT-7R (also called CMS-03):

1. It was launched by the Launch Vehicle Mark-3 (LVM3-M5) from the Satish Dhawan Space Centre, Sriharikota.
2. It is a communication satellite specifically designed to provide secure multi-band links for the Indian Navy.
3. It is the heaviest indigenously built communication satellite ever produced by ISRO.

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

98. With reference to Commission for Air Quality Management (CAQM), consider the following statements:

1. It is a body which is governed by and accountable to the Central Pollution Control Board.
2. Its jurisdiction extends to the whole of India.

Which of the statements is/are correct?

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

99. Which of the following is not a criterion used by the IUCN for classifying species as Critically Endangered?

(a) Rate of decline in population size
(b) Size of geographic range
(c) Rarity of the species
(d) probability of extinction.

100. Consider the following pairs:

Fauna		**Naturally found in**
1. Black tiger	**:**	Similipal Tiger Reserve
2. Golden Langur	**:**	Nilgiri Biosphere Reserve
3. Hoolock Gibbon	**:**	Nanda Devi National Park

How many of the above pairs are correctly matched?

(a) Only one pair
(b) Only two pairs
(c) All three pairs
(d) None of the pairs

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ANSWERS & EXPLANATIONS

GENERAL STUDIES (P) TEST – 6327

Q 1. B

- The polar bear is a large bear native to the Arctic and nearby areas. It is closely related to the brown bear, and the two species can interbreed. The polar bear is the largest extant species of bear and land carnivore by body mass, with adult males weighing 300–800 kg.
- Polar bears have several adaptations that help them stay warm in the cold Arctic environment:
- Thick Fur
  - Polar bears have a dense layer of underfur and an outer layer of guard hairs. This thick fur traps air and provides excellent insulation against the cold.
- Layer of Fat (Blubber)
  - Under their skin, polar bears have a thick layer of fat (blubber), which can be up to 11 cm thick. This blubber acts as insulation and helps retain body heat.
- Black Skin
  - **Polar bears have black skin underneath their fur, which helps absorb and retain heat from the sun. Hence, statement 2 is correct.**
- Small Ears and Tail
  - **Polar bears have small ears and a short tail, which reduces heat loss from these extremities. Hence, statement 1 is not correct.**

Q 2. B

- Kelp forests — underwater ecosystems formed in **shallow water** by the dense growth of several different species known as kelps — are declining because of climate change, showed a new study. **Hence, statement 1 is not correct.**
- Kelp populations at **equatorward-range edges are particularly vulnerable to climate change** as these locations are undergoing warming at or beyond thermal tolerance thresholds, the study published in the journal Nature January 23, 2023 found. Due to this, the unique adaptive or evolutionary genetic diversity that the rear-edge populations (populations in warm, low-latitudes) may contain is also under threat due to rapid warming, according to Climate change threatens unique evolutionary diversity in Australian kelp refugia. **Hence, statement 3 is correct.**
- Kelp forests occur worldwide throughout temperate and polar coastal oceans. kelp forests were also **discovered in tropical waters near Ecuador**. **Hence, statement 2 is correct.**

Q 3. B

- **Marsupials are a diverse group of mammals belonging to the infraclass Marsupialia. They are natively found in Australasia, Wallacea, and the Americas. A marsupial gives birth to a live but premature embryo-like young, which then usually crawls into the mother's pouch to feed and complete its development.**

- **Kangaroo**
  - **Kangaroos are classic marsupials found mainly in Australia. They give birth to underdeveloped young (joeys) that continue development in the mother's pouch (marsupium).**
- **Pangolin**
  - **Pangolins are placental mammals, not marsupials. They are found in Asia and Africa and are known for their protective keratin scales. They do not have a pouch;** their mode of reproduction and development is like other placental mammals.
- **Koala**
  - **Koalas, like kangaroos, are marsupials native to Australia.** They also give birth to highly underdeveloped young, which then move into the pouch, attach to a teat, and continue development.
- **Flying Squirrel**
  - Flying squirrels **are placental mammals (order Rodentia). They are found in parts of Asia, Europe, and North America. They have a patagium (a membrane between limbs) that allows gliding, but no pouch.** They are often confused with the Sugar Glider, which is a marsupial, but flying squirrels themselves are not marsupials.
- **Hence, option (b) is the correct answer.**

Q 4. C

- **Recent Context:** India recently marked 100 years of organised hockey, commemorating the foundation of the Indian Hockey Federation (IHF) on 7 November 1925. This milestone triggered nationwide events, matches, and discussions on India's hockey legacy, Olympic history, and government schemes supporting the sport
- Origins and Evolution of Hockey in India
  - Modern field hockey originated in Britain in the late 18th–early 19th centuries.
  - British soldiers introduced the game to Indian regiments in the 1850s.
  - **Indigenous stick-and-ball games like Khido Khundi (Punjab) helped the sport take root at the local level**.
  - Early clubs appeared in Calcutta (1885), followed by Bombay and Punjab.
- What is Khido Khundi?
  - **Khido Khundi is a traditional stick-and-ball game from the Punjab region — literally a local form of hockey played with a blunt or twisted stick and a ball.** It predates organised, codified field hockey and represents one of several regional games that resembled hockey before the modern rules were standardised.**Hence, option (c) is the correct answer.**

Q 5. A

- Recent Context: India – US sign 10 Year framework for Major Defense Partnership.
- The framework, signed on the sidelines of the 12th ASEAN Defence Ministers' Meeting - Plus (ADMM-Plus) in Kuala Lumpur, Malaysia, intends to provide a unified vision and policy direction to deepen defence cooperation.
- Popularly known as the four foundational agreements between India and USA, they primarily refer to a set of foundational military agreements between India and the United States, designed to deepen defense cooperation. Those are:

- **Logistics Exchange Memorandum of Agreement (LEMOA):** Signed in 2016, enabling mutual logistics support.
- **Communications Compatibility and Security Agreement (COMCASA):** Signed in 2018, allowing India to acquire secure communication equipment.
- **Industrial Security Agreement (ISA):** Signed in 2019.
- **Basic Exchange and Cooperation Agreement (BECA)**: Signed in 2020, facilitating the exchange of geospatial information.

- **There is no Comprehensive Economic Partnership Agreement (CEPA) between India and the US. Hence, option (a) is the correct answer.**

Q 6. A

- Mangrove forests are restricted to tropical and subtropical latitudes near the equator because they are unable to withstand freezing temperatures. These unique trees thrive in saline environments with low oxygen but are vulnerable to cold, which prevents them from growing in temperate and polar regions. **Hence, statement 1 is correct.**
- Mangroves are sensitive to cold and cannot survive prolonged periods of freezing temperatures, which is why their distribution is limited to warmer, frost-free areas. Geographic Range: This limits them to the tropical and subtropical zones, generally between approximately 25°N and 25°S latitude.
- West Bengal has the largest area of mangroves in India, primarily due to the Sundarbans, which are also the world's largest mangrove forest. **Hence, statement 2 is correct.**
- Many mangrove forests can be recognized by their dense tangle of prop roots that make the trees appear to be standing on stilts above the water. This tangle of roots allows the trees to handle the daily rise and fall of tides, which means that most mangroves get flooded at least twice per day. The roots also slow the movement of tidal waters, causing sediments to settle out of the water and build up the muddy bottom. All of these trees grow in areas with low-oxygen soil, where slow-moving waters allow fine sediments to accumulate. **Hence, statement 3 is not correct.**

Q 7. C

- Pioneer species are the first organisms to colonize an environment that has been recently disrupted or is completely barren, such as after a volcanic eruption or a forest fire. These hardy species start the process of ecological succession by modifying the environment, often by breaking down rock to form soil or adding organic matter, making it possible for other plants and animals to eventually move in. Examples include lichens on bare rock and fireweed after a forest fire.
- **Examples of pioneer species**
  - Lichens: These are often the first to colonize bare rocks, as they can break down rock surfaces and contribute to soil formation.
  - Fireweed: This is a common pioneer species that grows quickly after disturbances like forest fires.
  - Grasses and weeds: These are common in areas that have experienced a fire or other disruption, as their seeds are easily spread by wind.
  - Phytoplankton: In aquatic environments, these microscopic organisms are among the first to colonize new areas.
- **Hence, option (c) is the correct answer.**

Q 8. D

- **UNESCO,** which stands for the United Nations Educational, Scientific and Cultural Organization, works to protect and preserve important cultural and natural heritage around the world. To help with this, UNESCO's member countries adopted the **World Heritage Convention in 1972.**
- Today, **the World Heritage List** includes 1,223 sites that are considered valuable to all of humanity. These include 952 cultural sites, 231 natural sites, and 40 sites that have both cultural and natural importance. As of October 2024, 196 countries have joined the World Heritage Convention. **India now has 43 sites on the World Heritage List.**
- India has seven UNESCO natural world heritage sites: **Kaziranga National Park, Manas Wildlife Sanctuary, Keoladeo National Park,** Nanda Devi and Valley of Flowers National Parks, Sundarbans National Park, **Western Ghats,** and the Great Himalayan National Park.
  - **Manas Wildlife Sanctuary** is located in the State of Assam in North-East India, a biodiversity hotspot. The Manas Wildlife Sanctuary is part of the core zone of the Manas Tiger Reserve, and lies alongside the shifting river channels of the Manas River.
  - **Kaziranga National Park** represents one of the last unmodified natural areas in the north-eastern region of India. Covering 42,996 ha, and located in the State of Assam it is the single largest undisturbed and representative area in the Brahmaputra Valley floodplain.
  - **Keoladeo National Park,** located in the State of Rajasthan, is an important wintering ground of Palaearctic migratory waterfowl and is renowned for its large congregation of non-migratory resident breeding birds.
  - **The Western Ghats** are internationally recognized as a region of immense global importance for the conservation of biological diversity, besides containing areas of high geological, cultural and aesthetic values. A chain of mountains running parallel to India's western coast, approximately 30-50 km inland, the Ghats traverse the States of Kerala, Tamil Nadu, Karnataka, Goa, Maharashtra and Gujarat.
- **Hence option (d) is the correct answer.**

Q 9. B

- Vande Mataram at 150:
  - The 150th anniversary of Vande Mataram has renewed national interest in the song's origins, its first public performance, and its constitutional status. Composed by Bankim Chandra Chattopadhyay in 1875, the song played a central role in India's freedom struggle and continues to hold deep cultural and patriotic value.
- Origins and Language
  - **Vande Mataram first appeared in Bankim Chandra's novel Anandamath and was written in a blend of Sanskrit and Bengali**. The opening lines carry a distinctly Sanskritic flavour, invoking the motherland as divine, while the later stanzas employ literary Bengali. This mixture reflects both poetic intent and the linguistic richness of Bengal's intellectual tradition. **Hence, statement 1 is not correct.**
- First Public Rendition
  - The song entered the political sphere when Rabindranath Tagore sang it publicly at the 1896 Calcutta Session of the Indian National Congress. This was the first time the national movement embraced it on a national platform.
- Adoption as the National Song
  - After Independence, the Constituent Assembly debated the national symbols of the Republic. **In January 1950, it formally recognised the first two stanzas of Vande Mataram as the National**

Song of India. While not mandated in the Constitution like the National Anthem, it holds an honoured and equal cultural status. **Hence, statement 2 is correct.**

Q 10. A

- **The Burachapori Wildlife Sanctuary** is just 40 km away from Tezpur Town in **Assam**. With the Brahmaputra river flowing in its backdrop, the Sanctuary is extremely scenic and picturesque. Key habitat in the Sanctuary is alluvial flood plains. The major part of the sanctuary is covered by grasslands with patches of water bodies and forests. The Sanctuary is well-known for the **Bengal Florican and great Indian one-horned Rhino. Hence, pair 1 is not correctly matched.**
- **Khijadiya Wildlife Sanctuary,** located near Jamnagar in **Gujarat**, is a unique wetland ecosystem recognized as a Wetland of International Importance. This sanctuary was inadvertently created when a check dam was constructed across the Ruparel River. The resultant landscape was declared a sanctuary some three decades later. **Hence, pair 2 is not correctly matched.**
- **Fudam Wildlife Sanctuary** is an established bird sanctuary located on the eastern part of Diu. Fudam has historically been recognised as being a natural sanctuary for water birds. The mangroves of the sanctuary serve as spawning grounds for fish. The Hoka tree, which dominates the sanctuary, is an endangered species in this union territory. **Hence, pair 3 is not correctly matched.**
- Located quite close to the India Myanmar border, **the Fakim Sanctuary spread over 642 hectares,** is a must visit attraction when on a wildlife tour to **Nagaland**. The protection of **Blyth's Tragopan** has been the motivation for the constitution of the Sanctuary. **Hence, pair 4 is correctly matched.**

Q 11. C

- **Biosphere Reserve (BR) is an international designation by UNESCO** for representative parts of natural and cultural landscapes extending over large area of terrestrial or coastal/marine ecosystems or a combination thereof.
- The UNESCO has introduced the designation 'Biosphere Reserve' for **natural areas to minimize conflict between development and conservation.** BRs are nominated by national government which meet a minimal set of criteria and adhere to minimal set of conditions for inclusion in the world network of Biosphere reserves under the **Man and Biosphere Reserve Programme of UNESCO.** Globally, there are 784 biosphere reserves in 142 countries. India has 13 internationally recognised BRs. They are as follows.
  - **Nilgiri, Gulf of Mannar, Sunderban, Nanda Devi, Nokrek, Pachmarhi, Similipal, Achanakmar-Amarkantak, Great Nicobar, Agasthyamala, Khangchendzonga, Panna, Cold Desert Biosphere Reserves.**
- **Hence, option (c) is the correct answer.**

Q 12. B

- **The Jerdon's Courser is a restricted-range endemic nocturnal cursorial bird found only in the Eastern Ghats of Andhra Pradesh. Designated Critically Endangered on the IUCN Red List, it inhabits sparse scrub forests with open patches of ground and is currently known only from the Sri Lankamalleswara and Sri Penusila Narasimha wildlife sanctuaries. Hence, statements 1 and 2 are correct.**
- **Sri Lankamalleswara Wildlife Sanctuary, situated in the Lankamalai Hill ranges, is about 30 km from Cuddapah (Andhra Pradesh). This sanctuary was declared mainly for the Critically Endangered Jerdon's Courser. It was considered to be extinct from the beginning of the 20th century until its rediscovery in 1986.**

- The major types of forest in this Sanctuary are Southern Tropical Thorn and Southern Tropical Dry Deciduous (Champion and Seth 1968). The Sanctuary bears dry deciduous forest in the higher elevations to scrub forest in the plains. This habitat is under tremendous pressure due to various anthropogenic activities.
- **However, Silent Valley National Park is situated in the Nilgiri Hills of the Western Ghats, and covers an area of approximately 90 sq km. Hence, statement 3 is not correct.**

Q 13. D

- The **"forest area"** is an area recorded as forest in the government records. Often this term is also written as **"recorded forest area".** The recorded forest area is categorized into "Reserved Forest", "Protected Forest" and "Unclassed Forest".
- These are defined below:
  - **Reserved Forest:** An area notified under the provisions of Indian Forest Act, 1927 or the State Forest Acts having full degree of protection. In **Reserved Forests all activities are prohibited unless permitted. Hence, statement 2 is not correct.**
  - **Protected Forest:** An area notified under the provisions of Indian Forest Act, 1927 or the State Forest Acts having limited degree of protection. In **Protected Forests all activities are permitted unless prohibited. Hence, statements 1 and 3 are not correct.**
  - An area recorded as forest but not included in reserved or protected forest category. Ownership status of such forests varies from state to state.

Q 14. D

- **Kawal Tiger Reserve** is located in **North Eastern part of Telangana having Godavari** river at one side and Maharashtra border on other side. Govt of India declared Kawal wildlife sanctuary as Tiger Reserve in 2012. This sanctuary is catchment for the rivers Godavari and Kadam, which flow towards the south of the sanctuary.
- **Nandur-Madhameshwar Wildlife Sanctuary** was created when a dam was built across the **Godavari River at Nandur Madhameshwar.** The place was declared a sanctuary, and it is now a **Ramsar site.**
- **The Papikonda National Park** lies on the left and right banks of the **river Godavari and cuts through the Papikonda hill range** of the Eastern Ghats. The allure of the Park is enhanced by the Godavari River. Moist deciduous forests are spread over a majority of the area of the Park.
- **Corangi or Coringa Wildlife Sanctuary** is the enchanting site of the **union of the Godavari River with the backwaters of the Bay of Bengal.** The region is covered mostly with Mada or Mangrove Forest. Between this area and the sea "Hope Island" blocks the direct confluence of the sea and the Godavari.
- **Hence, option (d) is the correct answer.**

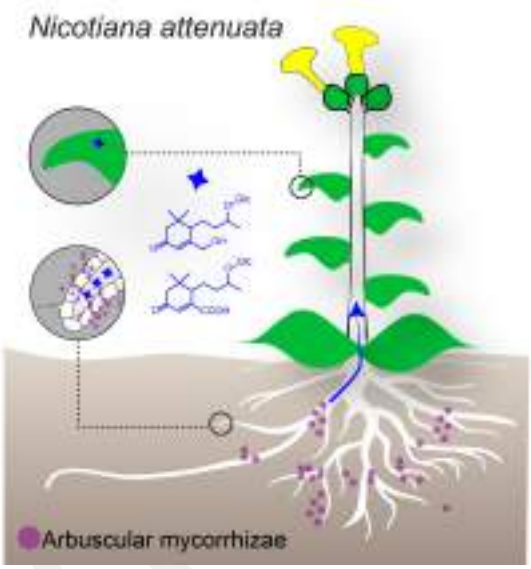
Q 15. A

- The Kharai, is a rare and unique breed of dromedary camel, commonly known as the 'swimming camel' due to its ability to thrive in the salt marshes of Kutch district, located in the western Indian state of Gujarat. The word 'Kharai' comes from 'Khar', meaning saline, pointing to the camel's ability to live in coastal saline ecosystems. It thrives in brackish water and estuarine ecosystems, not in confined pastures. **Hence, statement 1 is correct.**
- Kharai camels are renowned as the world's only known camels with the unique ability to swim in seawater, thriving in the saline coastal regions of Gujarat, India, where they traverse the Gulf of

Kutch to feed on mangroves. Kharai Camels have webbed feet for swimming and strong digestive systems to tolerate salty vegetation. **Hence, statement 2 is correct.**

- **The Kharai camel is classified as endangered by the International Union for Conse**rvation of Nature (IUCN). Kharai Camel is recognised as a genetically distinct breed and listed as a threatened animal by the National Bureau of Animal Genetic Resources (NBAGR). **Hence, statement 3 is not correct.**

Q 16. A

- Mushrooms are the reproductive (fruiting) bodies of certain fungi. Taxonomically, they are classified under the kingdom Fungi, not Plantae or Animalia. They are eukaryotic, heterotrophic organisms with cell walls made primarily of chitin, which is characteristic of fungi. **Hence, statement 1 is correct.**
- Many mushrooms arise from fungi that form mycorrhizae - a symbiotic association between fungal hyphae and the roots of plants, especially trees. In such associations:
  - The fungus helps the plant in absorption of water and minerals (especially phosphorus).
  - The plant supplies the fungus with carbohydrates formed via photosynthesis.
  - Many forest mushrooms (e.g., those associated with pine, oak, birch) are produced by mycorrhizal fungi.
  - **Hence, statement 2 is correct.**
- 

- Photosynthesis is the process by which organisms (like plants, algae, and cyanobacteria) use sunlight to synthesize food from carbon dioxide and water. This process requires the pigment chlorophyll.
- **Fungi are Heterotrophs:** Mushrooms and all other fungi lack chlorophyll. They are heterotrophs, meaning they must obtain preformed organic carbon (food) from their environment. They do this by secreting powerful enzymes into their food source (like wood or soil) and absorbing the digested nutrients. They cannot produce their own food using sunlight. **Hence, statement 3 is not correct.**

Q 17. B

- **Recent context:** The **5th World Congress of Biosphere Reserves (WCBR)** was held recently in Hangzhou, China from September 22 to 26, 2025.
- The congress brought together over 2,000 stakeholders to shape the future of UNESCO's biosphere reserves and adopted the Hangzhou Strategic Action Plan (2026–2035). A notable outcome was the designation of 26 new sites, **including India's Cold Desert, to the World Network of Biosphere**

Reserves. It is also the first time the congress is held in Asia, and outside Europe and the Americas – marking a milestone in the MAB program's development and highlighting its global inclusivity. **Hence, statement 2 is correct.**

- **Every ten years, UNESCO convenes the World Congress of Biosphere Reserves (WCBR)** to evaluate progress, share experiences, and set future directions for the MAB Programme. **Hence, statement 1 is not correct.**
- The MAB Programme operates under the guidance of UNESCO Member States. Its **main governing body is the International Coordinating Council (MAB-ICC), also known as MAB Council,** which is composed of **34 Member States.** The **MAB-ICC usually meets once a year.** In between sessions, its authority is delegated to its Bureau, whose members are nominated from each of UNESCO's geopolitical regions. **Hence, statement 3 is correct.**

Q 18. A

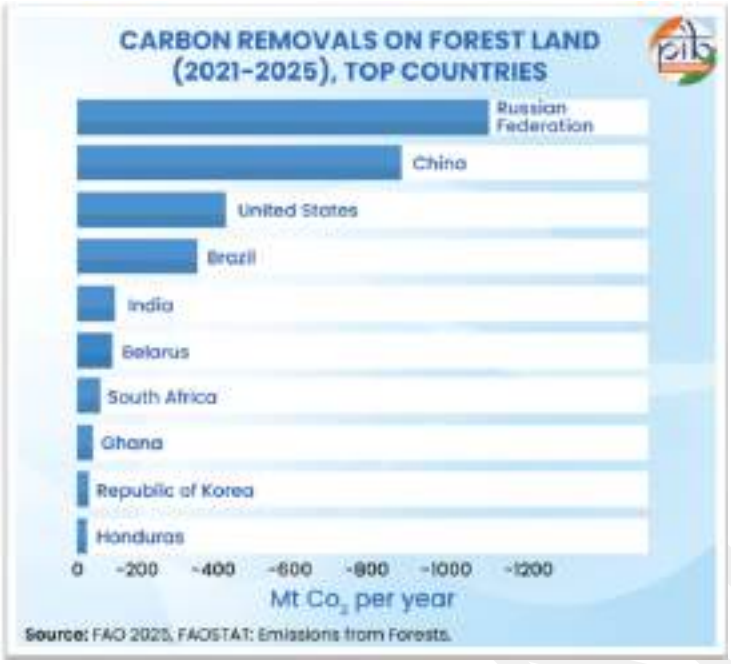
- The International Union for Conservation of Nature (IUCN) categorizes protected areas into six main types, ranging from strictly protected nature reserves to areas managed for the sustainable use of natural resources. The categories are:
- Category Ia: Strict Nature Reserve: High-level protection with minimal human interference. **Hence, Pair 1 is not correctly matched.**
- Category Ib: Wilderness Area: Undisturbed and protected natural area.
- Category II: National Park: Areas for large-scale ecosystem conservation and recreation. **Hence, Pair 2 is not correctly matched.**
- Category III: Natural Monument: Areas set aside to protect a specific natural monument or feature. **Hence, Pair 3 is correctly matched.**
- Category IV: Habitat/Species Management Area: Areas protected for specific species or habitats, requiring active management. **Hence, Pair 4 is correctly matched.**
- Category V: Protected Landscape/Seascape: Areas that combine nature and cultural values through sustainable use.
- Category VI: Protected Area with Sustainable Use of Natural Resources: Areas managed for the sustainable use of natural resources.

Q 19. C

- Ricin Exposure
  - Ricin is one of the most dangerous natural toxins known. It comes from castor beans and can cause severe illness or death even in very small quantities. The recent ATS arrests highlight why ricin remains a major security concern.
- How Ricin Enters and Affects the Body
  - Ricin can harm the body through multiple routes — **swallowing, inhaling, or injecting it. All these forms of exposure can be fatal because the toxin spreads quickly and reaches vital organs. Hence, statement 1 is correct.**
  - Once inside the body, **ricin attaches to ribosomes, the cell structures that produce proteins.** When protein production stops, the affected cells die. This chain reaction leads to organ failure, which explains the rapid decline seen in ricin poisoning cases. **Hence statement 2 is correct.**
- Why Ricin Is Easy to Extract
  - Castor beans are common and widely grown for producing castor oil. Ricin exists naturally in these seeds. Extracting the toxin from the leftover seed material is not very difficult, which is

why improper handling or deliberate misuse poses a risk.

Q 20. D

- **As per Forest emissions and removals trends 1990–2025 (FAO Analytical brief)**
- **India ranked 5th among the top global carbon sinks**, with its forests removing 150 Mt of CO_2 per year during 2021–2025. **Hence, Statement-I is not correct.**
- 

- **India's Nationally Determined Contributions (NDC) target:**
- India's Nationally Determined Contributions (NDCs) for 2030 include reducing its GDP's emissions intensity by 45% from 2005 levels, achieving 50% of its electric power capacity from non-fossil fuel sources, and **creating an additional carbon sink of 2.5 to 3 billion tonnes of CO2 equivalent through forest and tree cover by 2030. Hence, Statement-II is correct.**
- **However, against the India's Nationally Determined Contributions (NDC) target, the country has achieved a carbon sink of 30.43 billion tonnes of CO2 equivalent. This represents an additional 2.29 billion tonnes of carbon sink in Forest and Tree Cover.** These advancements in forest cover and the reduction in fire incidents highlight India's progress toward sustainable environmental conservation.

Q 21. C

- Biodiversity cold spots are regions with relatively low species richness but are still crucial for conservation because they contain unique evolutionary lineages, rare species, and often support critical ecosystem functions. Unlike biodiversity hotspots that are dense with species, cold spots are characterized by low species diversity and can be extreme environments, face high rates of habitat loss, or have specialized species. Examples include the Pacific temperate rainforests and deserts.
- **Characteristics of biodiversity cold spots**
  - Low species richness: These areas have fewer species compared to their surroundings.
  - Presence of unique species: They are often home to rare, endemic species that may not be found anywhere else.
  - Support for unique evolutionary lineages: They are important for understanding the origins and diversification of species.
  - Critical ecosystem processes: Cold spots play a vital role in maintaining global and local ecosystem functions.

- Vulnerability to threat: Many cold spots are under significant threat from habitat loss, logging, and other human activities, making conservation efforts crucial.
- Extreme environments: They can be found in harsh conditions like deserts or high mountains where environmental extremes drive species diversification.

- **Hence, option (c) is the correct answer.**

Q 22. C

- **The Ministry of Environment, Forest, and Climate Change notified the Van (Sanrakshan Evam Samvardhan) Rules, 2023**. These Rules replace the Forest (Conservation) Rules, 2022. **The Rules have been notified under the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 (i.e., the Forest Conservation Act, 1980). Hence, statement 1 is correct.**
- Rules prescribes the procedure for obtaining the **approval of the Central Government under section 2 of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980 (69 of 1980) for the proposals involving the dereservation of forest land, use of forest land for non-forest purposes or for the assignment of lease. Hence, statement 2 is correct.**
  - **The central government will provide approval in two stages: (**i) **in-principle approval, and (ii) final approval.**
    - It will set up Regional Offices for in-principle approval for certain types of projects. These include: (i) linear projects, (ii) hydro-electric power projects up to 25 MW capacity subject to certain other conditions, and (iii) forest land up to 40 hectares. In-principle approval for certain other types of projects will be provided by the central government. These include: (i) mining, (ii) de-reservation, (iii) hydro-electric power projects above 25 MW capacity, and (iv) regularisation of encroachment.
    - The central government will provide the final approval after receiving a compliance report from the state government.

Q 23. A

- Recent Context: The Union Minister of Cooperation committed it, while addressing the international conference on the urban cooperative credit sector, 'Co-Op Kumbh 2025' in New Delhi.
- **About Urban Cooperative Banks (UCBs**)
  - They are a subset of cooperative banks in India that operate primarily in urban and semi-urban areas.
  - History: Cooperative Credit Societies Act of 1904 and its 1912 amendment laid the legal foundation.
  - **They are registered as cooperative societies under the respective State Cooperative Societies Acts (for single-state operations) or the Multi-State Cooperative Societies Act, 2002 (for operations across multiple states). Hence, statement 1 is correct.**
  - The urban cooperative banks (UCBs) are no longer required to allocate 75% of their loans to priority sector lending; the target was reduced to 60% by the Reserve Bank of India (RBI) starting in the 2025-26 financial year**. Hence, statement 2 is not correct.**

Q 24. A

- Sacred groves are patches of forests or natural vegetation protected by local communities because of their religious beliefs and traditional rituals. They are usually dedicated to local folk deities such as Ayyanar and Amman, or to tree spirits known as Vanadevatais.
- **Varying Degrees of Sanctity**

- In some sacred forests, no human interference is allowed. Even dry foliage and fallen fruits are not touched. This is seen among tribes like the Garo and Khasi in northeastern India.
- In some other groves, live trees or branches are never cut, but people are allowed to collect deadwood or dried leaves. This is practiced by communities like the Gonds of central India.

- **Classification of Sacred Groves**
  - Temple Groves are created around a temple and conserved as part of religious practices.
  - Groves around burial or cremation grounds serve ritualistic purposes and are protected by the local community.
  - Traditional Sacred Groves are associated with a village deity, usually represented by a simple symbol.
- Sacred groves across India are known by different local names such as **Pavithravana in Andhra Pradesh, Gumpa Forests in Arunachal Pradesh**, Deorai in Goa, **Sarana in Jharkhand, Kavu in Kerala, Davrai in Maharashtra,** Gamkhap, **Mauhak (sacred bamboo reserves) in Manipur,** and Ki Law Lyngdoh in Meghalaya. Other states use names like **Kovil Kadu (Puducherry),** Orans (Rajasthan), Swami Shola (Tamil Nadu), Deo Bhumi (Uttarakhand), and Garamthan or Jahera in West Bengal. **Hence, option (a) is the correct answer.**

Q 25. A

- **The Pachmarhi Biosphere Reserve** is located in the biogeographical region of the Deccan Peninsula and the Biotic Province of Central India. The Satpura mountain ranges cross India from west to east and Pachmarhi lies directly in its centre. The eastern boundary of the biosphere reserve lies along a road with cultivation farms, close to the **Dudhi River,** while the southern boundary borders the **Tawa plateau.**
- Pachmarhi comprises three protection sites: **the Bori Sanctuary, Satpura National Park and Pachmarhi Sanctuary** – otherwise known as the Satpura Tiger Reserve. The Pachmarhi Plateau is also known as the 'Queen of Satpura', because it contains valleys, marshes, streams and waterfalls, all of which have led to the development of a unique and varied biodiversity. **Hence, option (a) is the correct answer.**

Q 26. D

- **A part of the Indian Railways Dedicated Freight Corridor project, the Western Dedicated Freight Corridor (WDFC) stretches over 1,506 km from Dadri in Uttar Pradesh to Jawaharlal Nehru Port Terminal in Maharashtra.** The WDFC is a freight-only railway line designed to transport goods. It aims to improve connectivity and decongest the passenger train network by limiting freight trains to their own railway lines. **The project is 96.4% operational as of May 2025. Hence, statement 1 is correct.**
- **Vadhavan Port in Maharashtra, once operational, is projected to become India's largest container port, with a capacity of approximately 23.2 million TEUs**. The new port, located near Dahanu in the Palghar district, is expected to be operational around 2034 and will be among the top 10 ports globally. It is designed as a greenfield, deep-draft port that will significantly boost India's maritime trade and connectivity. The project is being developed by the Jawaharlal Nehru Port Authority (JNPA) and the Maharashtra Maritime Board (MMB) and is part of the PM Gati Shakti program**. Hence, statement 2 is correct.**
- **The National Highways Authority of India (NHAI) is constructing Digital Highways with dedicated spaces for fibre optics infrastructure. The initiative involves implementing approximately 10,000 km of optic fibre cable infrastructure along the National Highways to**

provide better internet connectivity in rural areas and simplify the rollout of new age 5G/6G technologies across the country. For the pilot project, the NHAI has identified 1,367 km along the Delhi-Mumbai expressway and 512 km on the Hyderabad-Bengaluru corridor, which will feature a three-meter-wide utility corridor to lay fibre optic cables. In the future, these cables are also expected to support technologies such as connected vehicles, real-time traffic updates and digital tolling systems. **Hence, statement 3 is correct.**

Q 27. B

- Cold-water corals also called as deep water corals are marine invertebrates distinguished mostly by the presence of harpoon-shaped cells known as cnidocytes, which they utilise to protect and hunt. Cold-water corals can be found in the Atlantic, Indian, and Pacific Oceans.
- Cold-water corals live in deep parts of the ocean where sunlight cannot reach them, unlike tropical corals that depend on sunlight for photosynthesis through their symbiotic relationship with zooxanthellae.
- According to the United Nations Environment Programme, cold-water coral reefs outnumber tropical reefs worldwide. Deep-water corals are members of the Phylum Cnidaria and are mostly stony corals, but also include black and thorny corals, as well as soft corals.
- Deep-water corals, like tropical corals, provide habitat for other species, but they do not require zooxanthellae to survive.
- The Rost Reef off the coast of Norway is the world's largest cold water coral reef. Cold-water coral reefs provide breeding grounds and refugesfor a variety of fish, including redfish, ling, and tusk.
- **Hence, option (b) is the correct answer.**

Q 28. A

- **Octopuses are masters of camouflage.** They use specialized pigment sacs in their skin called chromatophores to instantly change their color, pattern, and even the texture of their skin. This allows them to perfectly mimic rocks, coral, or sand to avoid both predators and to sneak up on prey. This is a primary defense mechanism. **Hence, statement 1 is correct.**
- **The Snow Leopard's coat is thick, long, and colored a pale grayish-white with dark rosettes.** This coloration provides superb cryptic coloration (camouflage) against the rocky, snowy, and mountainous terrain of its high-altitude habitat in Central Asia. This camouflage is crucial for an apex predator that relies on stealth to ambush its prey. **Hence, statement 2 is correct.**
- The Hedgehog's primary defense strategy is not camouflage, but a physical deterrent. **When threatened, it contracts its strong muscles and rolls into a tight, spiny ball (a defense known as conglobation).** While its brown and tan coloring offers some minor blending with undergrowth, its principal reliance is on its sharp spines, not its appearance, to deter predators. **Hence, statement 3 is not correct.**
- **Hence, option (a) is the correct answer.**

Q 29. C

- Under the **Wildlife Protection Act, 1972, the Chief Wildlife Warden (CWW)** is the principal authority at the state level responsible for implementing the provisions of the Act and ensuring the protection and management of wildlife. T**he CWW is appointed by the State Government** and vested with wide-ranging administrative, regulatory, and enforcement powers.
- **The Chief Wildlife Warden has the authority to grant or refuse permits for the hunting of wild animals,** but only under specific and justified circumstances such as for scientific research,

education, or to manage animals **that have become dangerous to human life or property (Sections 11 and 12). Hence, option (c) is the correct answer.**

- The CWW also supervises and regulates the possession, transfer, and trade of captive wild animals, animal articles, trophies, and other wildlife derivatives. Individuals or dealers in possession of such items must declare them to the CWW, who in turn may grant ownership certificates, maintain registers, and oversee licensed dealers and taxidermists to ensure compliance with the law.
- In addition, the CWW manages sanctuaries and national parks, controlling entry and ensuring that no exploitation or destruction of wildlife or forest produce occurs without authorization. All government-owned wild animals and their derivatives remain under the Warden's custody and care. Overall, the Chief Wildlife Warden serves as the key authority for safeguarding wildlife and ensuring effective implementation of conservation measures within the state.

Q 30. B

- Many hyperthermophilic bacteria and archaea are known to live in deep-sea hydrothermal vents and hot springs where temperatures can approach or even exceed the boiling point of water (100°C at 1 atm; higher under pressure). **Examples include species of Pyrolobus, Thermococcus, and Sulfolobus,** which not only survive but actively grow and reproduce in such extreme temperatures. **Hence, statement 1 is correct.**
- There are **psychrophilic (cold-loving) fungi** that can grow at sub-zero temperatures, such as those found in polar regions, glaciers, snowpacks, and permafrost soils. Even though pure water freezes at 0°C, natural environments often contain salts and solutes that lower the freezing point, and thin films of liquid water can remain available for microbial metabolism.
- Thus, the growth of some fungi is indeed possible in environments where ambient temperatures are below 0°C. **Hence, statement 2 is correct.**
- While viruses don't "grow" in the same way as cells (they require a host), they **can certainly exist and remain infectious in highly acidic environments and replicate within extremely acid-tolerant host cells.** For example, some viruses that infect acidophilic archaea, such as those found in hot springs and sulfataric fields with a pH near 1, have been shown to maintain their structure and infectivity at a pH as low as 0.5 to 1.0.
- Research has shown that even a human coronavirus, HCoV-229E, remained infectious for hours at pH 2.0, an exception to the general rule that most viruses are quickly inactivated at this pH level. **Hence, statement 3 is not correct.**

Q 31. C

- **The Indian rhinoceros**, also known as the greater one-horned rhino, is the largest rhino species on Earth. the one-horned rhino has just one horn, setting it apart from its African counterparts. However, it's not the only rhino with one horn—the Javan rhino also sports a single horn. Indian rhinos are great swimmers and can cross rivers without trouble. This sets them apart from African rhinos, who can't swim. **As megaherbivores, Indian rhinos are integral to the health of their habitats.They primarily graze, with a diet consisting almost entirely of grasses as well as leaves, branches of shrubs and trees, fruit, and aquatic plants.**
- **Dugong is a marine mammal. Commonly known as "sea cows," dugongs graze peacefully on sea grasses in shallow coastal waters of the Indian and western Pacific Oceans**. Dugongs are threatened by sea grass habitat loss or degradation because of coastal development or industrial activities that cause water pollution. If there is not enough sea grass to eat then the dugong does not breed normally. This makes the conservation of their shallow water marine habitat very important.

- **Indian Pangolin and Chinese Pangolin occur in India. Indian Pangolin is a large anteater,** also called scaly anteaters because of their preferred diet, pangolins are the most trafficked mammal in the world—with demand primarily in Asia and in growing amounts in Africa—for their meat and scales.
- **The Ganges river dolphin** can only live in freshwater and is essentially blind. T**hey hunt by emitting ultrasonic sounds, which bounces off of fish and other prey, enabling them to "see" an image in their mind. Hence, Ganges river dolphins eat a variety of freshwater fish and invertebrates.** The Ganges river dolphin is important because it is a reliable indicator of the health of the entire river ecosystem. The government of India declared it the National Aquatic Animal in 2009. **Hence, option (c) is the correct answer.**

Q 32. A

- **The International Big Cat Alliance (IBCA) has been envisioned as a multi-country, multi-agency coalition, comprising of 95 Big Cat range countries, non-range countries with an interest in Big Cat conservation.** The primary objective of IBCA is to facilitate collaboration and synergy among stakeholders, consolidating successful conservation practices and expertise and replicating them in range countries.
- **The formal structure of IBCA comprises of Assembly, Standing Committee and Secretariat headed by the Director General.** The Assembly of the **IBCA is the apex decision-making body which comprises of representatives from each Member Country. The Assembly at the Ministerial level is chaired by the Honourable Minister, Environment, Forest and Climate Change, Republic of India in the capacity as President of the Assembly. Hence, statement 1 is correct and 3 is not correct.**
- Each Party shall appoint one (1) Representative to the Assembly. **The Assembly shall elect its President for a term of three years,** to make decisions concerning the implementation of this Agreement and coordinated actions to be taken to achieve its objective. **The meeting of Assembly of IBCA will be held at least once in two years.** However, special sessions may be called on the request of the Member States or IBCA Secretariat**. Hence, statement 2 is not correct.**
- From 23rd January, 2025, the IBCA and its Secretariat have become a full-fledged treaty based inter-governmental international organization and international legal entity.

Q 33. B

- EnviStats India 2025
  - Released by:
    - Ministry of Statistics and Programme Implementation (MoSPI), Government of India. **Hence, statement 1 is not correct.**
  - Published by the National Statistical Office (NSO) — 8th issue (since 2018).
- About the Report:
  - Prepared in alignment with the UN Framework for the Development of Environment Statistics (FDES), 2013.
  - Data compiled from various ministries, departments, and organizations of the Government of India.
  - The publication organizes environment-related data into six components, mirroring the FDES structure for easy reference and use.
- Key Highlights (2025 Edition):

- Temperature Trends:
  - The annual mean temperature rose from 25.05°C (2001) to 25.74°C (2024).
  - Similarly, minimum and maximum temperatures increased from 19.32°C → 20.24°C and 30.78°C → 31.25°C, respectively. **Hence, statement 3 is correct.**
- Rainfall Pattern:
  - The annual rainfall data (2001–2024) shows year-to-year variability influenced by monsoon fluctuations but no clear long-term upward or downward trend. **Hence, statement 2 is not correct.**
- Energy Generation:
  - Thermal power generation increased from 7,92,053 GWh to 13,26,549 GWh, while renewable energy rose sharply from 65,520 GWh to 2,25,835 GWh (2013–14 to 2023–24).
- Fisheries Growth:
  - Inland fish production more than doubled — from 61.36 lakh tonnes to 139.07 lakh tonnes (2013–14 to 2023–24).

- Significance:
  - Acts as a comprehensive statistical resource reflecting India's environmental performance and emerging trends.
  - Serves as a data-driven tool to support evidence-based policy formulation and sustainable development planning.
  - Highlights the dual reality of India's environmental trajectory — rising temperatures but stable rainfall trends, alongside progress in renewables and fisheries.

Q 34. D

- **Recent Context:** The Securities and Exchange Board of India (SEBI) issued a public advisory warning investors against investing in 'Digital Gold' or 'E-Gold' products offered via various online platforms, clarifying that such products do not fall under SEBI's regulatory framework.
- **About Digital Gold**
  - Digital gold refers to buying gold without physically possessing the precious metal.
  - The price of digital gold is linked to that of physical gold.
  - Digital gold is created using blockchain technology and allows investors to buy, sell and store gold electronically.
  - **These products are neither notified as securities nor regulated as commodity derivatives. Hence only statement 3 is not correct.**

Q 35. D

- As per the **Coastal Regulation Zone (CRZ) notification, 2019,** Following coastal areas shall be accorded special consideration for the purpose of protecting the critical coastal environment and difficulties faced by local communities: -
- **Critically Vulnerable Coastal Areas (CVCA):**
  - **Sundarban region of West Bengal** and other ecologically sensitive areas identified as under Environment (Protection) Act, 1986 such as **Gulf of Khambat and Gulf of Kutchh in Gujarat,** Malvan, **Achra-Ratnagiri in Maharashtra,** Karwar and Coondapur in Karnataka, Vembanad in Kerala, Gulf of Mannar in Tamil Nadu, **Bhaitarkanika in Odisha, Coringa, East Godavari and Krishna in Andhra Pradesh** shall be treated as **Critical Vulnerable Coastal Areas (CVCA)**

and managed with the involvement of coastal communities including fisher folk who depend on coastal resources for their sustainable livelihood. **Hence, option (d) is the correct answer.**

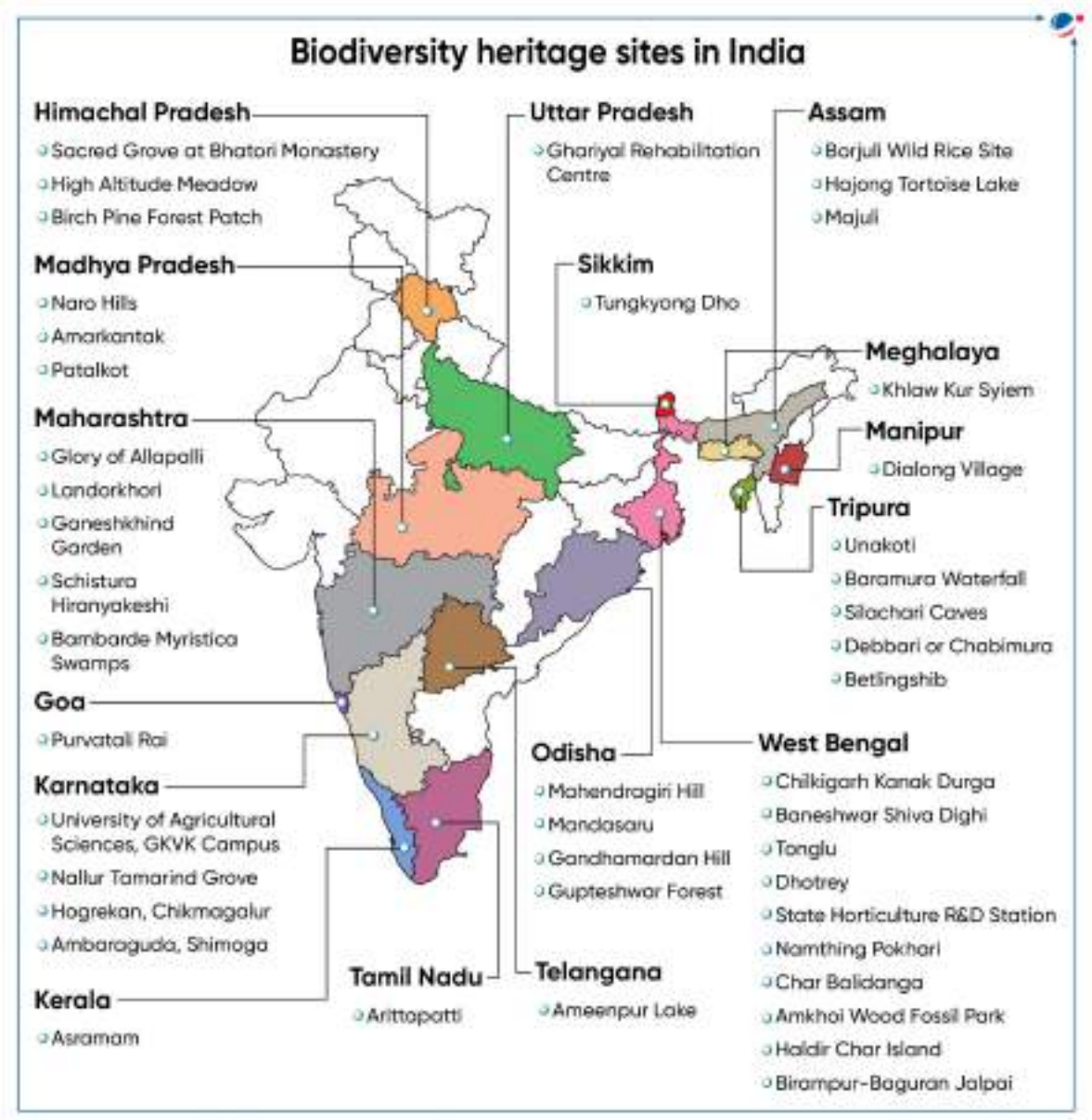
- CRZ for inland Backwater islands and islands along the mainland coast.
- CRZ falling within municipal limits of Greater Mumbai.

Q 36. A

- **Recent Context: The National Democratic Alliance (NDA) secured a victory by winning 202 of the 243 seats in the 2025 Bihar Legislative Assembly polls.**
- Legislative Assembly strengths:
  - West Bengal – 294 seats
  - Bihar – 243 seats
  - Tamil Nadu – 234 seats
  - Rajasthan – 200 seats
  - Descending order: West Bengal (294) → Bihar (243) → Tamil Nadu (234) → Rajasthan (200) → 2-1-3-4.
- **Hence option (a) is the correct answer.**

Q 37. B

- **BHS are well defined areas that are unique, ecologically fragile ecosystems** - terrestrial, coastal and inland waters and, marine having rich biodiversity comprising some specific components. Under Section 37 of Biological Diversity Act, 2002, State Government in consultation with local bodies may notify areas of biodiversity importance as BHS. Also, **State Government in consultation with Central Government may frame rules for management and conservation of BHS.**
- **Silachari Caves** are a natural cave system in Gomati, **Tripura**, and are notable for being the only natural cave in the state and a crucial habitat for several threatened cave bat species. **Hence, pair 1 is not correctly matched.**
- **Haldir Char Island** is a mangrove swamp located in Purba Medinipur, **West Bengal,** that has been designated as a Biodiversity Heritage Site (BHS). The 4.73-hectare island is a tidal area that supports a variety of littoral fauna and is known for its high biodiversity. **Hence, pair 2 is not correctly matched.**
- **Mandasaru**, located in the Kandhamal district of **Odisha**, is a breathtaking biodiversity-rich region officially designated as the Mandasaru Biodiversity Heritage Site (BHS). Often referred to as the "Silent Valley of Odisha", it lies within the Eastern Ghats and forms part of the biologically diverse Mandasaru Gorge, carved by the Mandasaru River. **Hence, pair 3 is correctly matched.**
- **Dailong Village**, located in Tamenglong district of **Manipur**, is a picturesque tribal settlement recognized as a Biodiversity Heritage Site (BHS) under the Biological Diversity Act, 2002. Covering an area of about 11.35 sq km, the village is renowned for its lush forests, rich flora and fauna, and the deep ecological knowledge of its indigenous community. **Hence, pair 4 is correctly matched.**

- 

Q 38. D

- **Nagarjunasagar–Srisailam Tiger Reserve (NSTR) is the largest tiger reserve in our country in terms of size.** This reserve is located in the **Nallamala Hills, which is an offshoot of the Eastern Ghats.** Spread over an area of 3728 km2 in five revenue districts, this tiger reserve is an abode of rich biodiversity with many endangered plants and animals. The geo-morphology of the habitat is interesting, with plateaus, ridges, gorges and deep valleys, supporting a tropical dry deciduous forest having an undergrowth of bamboo and grass.
- The Core/Critical Tiger Habitat is 2444.14 km2, and the buffer/peripheral area is 1283.36 km2. NSTR, Andhra Pradesh (3728 km2) and the adjoining Amrabad TR, Telangana (2611 km2) make a larger landscape having tiger-centric management interventions. **NSTR is connected to Seshachalam Biosphere Reserve through forested patches and three protected areas,** making it an important tiger-movement landscape.
- **Hence, option (d) is the correct answer.**

Q 39. A

- **Recent Context:** The 2025 Women's Cricket World Cup was hosted recently by India and Sri Lanka.
- India won the edition by Beating South Africa in the Finals. **It was India's 3rd final after 2005 & 2017 and the first-ever World Cup title. Hence, statement 3 is not correct.**

- **Historically, Most titles are won by Australia (7 times). Hence, statement 2 is correct.**
- **The 1973 Women's Cricket World Cup was the inaugural Women's Cricket World Cup, held in England from 20 June to 28 July 1973. It was the first tournament of its kind, held two years before the first limited overs World Cup for men in 1975.** The competition was won by the hosts, England. **Hence, statement 1 is correct.**

Q 40. C

- Mahseer are a group of large freshwater fish, native to India's Himalayan and Western Ghats rivers, prized for their strength and sport fishing qualities. Known as the "tiger among fish," mahseer, especially the Golden Mahseer and Humpback Mahseer, are highly endangered due to habitat degradation, pollution, and overfishing, though they are also an important species for aquaculture and are protected in many Indian states. **Hence, statement 1 is correct.**
- Golden Mahseer lives in fast-moving waters, inhabiting hill streams with a rocky and stony substrate. They can be found in temperatures between 5°C and 25°C. The fish has also been introduced in lakes and occurs in large reservoirs. The Golden Mahseer inhabits the Himalayan foothills, the Indus, Ganga and Brahmaputra basins and can also be found down south in the Balamore, Cauvery, Tambraparini, and Kosi Rivers. Upon maturity, the adults inhabit lowland rivers and lakes and migrate upstream in torrential monsoon conditions to reach suitable spawning grounds. **Hence, statement 2 is correct.**The golden mahseer (Tor putitora) is listed as 'endangered' on the IUCN Red List. The golden mahseer is the mahseer species on which WWF-India is primarily focusing its conservation efforts, due to the species' conservation status as well as its declining population trends. **Hence, statement 3 is correct.**

Q 41. C

- **The Framework for Management Effectiveness Evaluation (MEE) developed by the The International Union for Conservation of Nature (IUCN) World Commission for Protected Areas** . Management effectiveness evaluation is defined as the assessment of how well protected areas are being managed – primarily the extent to which management is protecting values and achieving goals and objectives. **The term management effectiveness reflects three main 'themes' in protected area management:**
  - design issues relating to both individual sites and protected area systems;
  - adequacy and appropriateness of management systems and processes;
  - and delivery of protected area objectives including conservation of values.
- **India is the only nation in the world to have institutionalised and effectively completed five cycles of MEE of Tiger Reserves in the country.** Since its inception in 2006, MEE being jointly conducted by the National Tiger Conservation Authority (NTCA) and the Wildlife Institute of India (WII) has paved the path for a successful evaluation of national tiger conservation efforts. **Hence, option (c) is the correct answer.**

Q 42. B

- **Parvati Arga Bird Sanctuary is a permanent freshwater environment consisting of two oxbow lakes**. These wetlands offer exceptional habitats for waterbirds, providing both roosting and breeding sites with over 100,000 birds documented in annual counts. The Sanctuary is a refuge for some of India's threatened vulture species: the critically endangered white-rumped vulture (Gyps bengalensis) and Indian vulture (Gyps indicus), and the endangered Egyptian vulture (Neophron percnopterus) have all been recorded. **The Sanctuary is located in the state of Uttar Pradesh. Hence, pair 4 is correctly matched.**

- **Kabartal Wetland, also known as Kanwar Jheel, covers 2,620 hectares of the Indo-Gangetic plains in the northern Bihar State.** The Wetland is an important stopover along the Central Asian Flyway, with 58 migratory waterbirds using it to rest and refuel. It is also a valuable site for fish biodiversity with over 50 species documented. Five critically endangered species inhabit the site, including three vultures – the red-headed vulture (Sarcogyps calvus), white-rumped vulture (Gyps bengalensis) and Indian vulture (Gyps indicus) – and two waterbirds, the sociable lapwing (Vanellus gregarius) and Baer's pochard (Aythya baer). **Hence, pair 2 is correctly matched.**
- **Ranganathittu Bird Sanctuary is also called Pakshi Kashi.** Its designated as Karnataka first Ramasar Site due to international significance and also recognized as a Important Bird and Biodiversity Area (IBA) by Birdlife international. **Ranganathittu Bird Sanctuary located on the islands of river Cauvery, in Srirangapattana taluk of Mandya district (Karnataka State).** This sanctuary comprises of 6 (six) Islands and 6 (six) Islets in the river Cauvery. The Ranganathittu Bird Sanctuary inhabited by tropical moist deciduous, Tropical thorn and Riverine type of Forest. **Hence, pair 1 is not correctly matched.**
- **Ropar lake (Punjab): In February 2002, it was declared as a Ramsar Site**. A humanmade wetland of lake and river formed by the 1952 construction of a barrage for diversion of water from the Sutlej River for drinking and irrigation supplies. The site is an important breeding place for the nationally protected Smooth Indian Otter, Hog Deer, Sambar, and several reptiles, and the endangered Indian Pangolin (Manis crassicaudata) is thought to be present. **Hence, pair 3 is not correctly matched.**

Q 43. A

- The national animal of India is the Royal Bengal Tiger (Panthera tigris tigris). Declared the national animal in 1973, it was chosen for its grace, strength, agility, and power, and was adopted to help with conservation efforts for the species, which was declining due to hunting and habitat loss. **Hence, Pair 1 is not correctly matched.**
- The Ganges River Dolphin (Platanista gangetica) is India's National Aquatic Animal, declared in 2009 to highlight river health and aid conservation efforts for this endangered, blind mammal that uses echolocation to navigate murky waters, symbolizing biodiversity in the Ganges-Brahmaputra river system. Its declaration under the Wildlife (Protection) Act, 1972, grants it Schedule-I protection, a key step in the 'Clean Ganga Mission'. **Hence, Pair 2 is correctly matched.**
- The Indian Elephant (Elephas maximus indicus) is India's National Heritage Animal, designated in 2010 by the government to highlight its cultural significance and promote its conservation, recognizing its importance in Indian culture, religion, and ecology while addressing threats from habitat loss and fragmentation. This designation aims to boost protection efforts, similar to the focus on tigers, through initiatives like Project Elephant and the establishment of conservation authorities. **Hence, Pair 3 is not correctly matched.**

Q 44. A

- **Wildlife Sanctuary** is an area having adequate ecological, faunal, floral, geomorphological, natural or zoological significance, **notified by the State/Central Government** for the purpose of protecting, propagating or developing wildlife or its environment. **National Park** is an area, **notified by the State/Central government** by reason of its ecological, faunal, floral, geomorphological, or zoological association or importance, needed for the purpose of protecting & propagating or developing wildlife therein or its environment. **Hence, statement 2 is not correct.**

- The difference between a Sanctuary and a National Park mainly lies in the vesting of rights of people living inside.
  - Unlike a Sanctuary, where certain rights can be allowed, in a National Park, no rights are allowed. **No grazing of any livestock shall also be permitted inside a National Park; while in a Sanctuary, the Chief Wildlife Warden may regulate, control or prohibit it. Hence, statement 1 is correct.**
  - In addition, while any removal or exploitation of wildlife or forest produce from a Sanctuary requires the recommendation of the State Board for Wildlife, removal etc., from a National Park requires recommendation of the National Board for Wildlife (However, as per orders of Hon'ble Supreme Court dated 9th May 2002 in Writ Petition (Civil) No. 337 of 1995, such removal/ exploitation from a Sanctuary also requires recommendation of the Standing Committee of National Board for Wildlife).
- As per the **Wild Life Protection Act, 1972, No alteration of the boundaries of a Wildlife sanctuary and National Parks shall be made by the State Government except on a recommendation of the National Board for Wildlife. Hence, statement 3 is not correct.**

Q 45. C

- The Wildlife (Protection) Amendment Act, 2022 rationalised the schedules from six to four, focusing on protection levels: Schedule I for the highest protection (tigers, elephants), Schedule II for lesser protection (other animals), Schedule III for protected plants, and the new Schedule IV for species listed under CITES (Convention on International Trade in Endangered Species).
- Schedule III: Covers protected plant species, ensuring their conservation. Examples of Protected Plants: Specific examples of plants included under this protection:
  - Beddomes' cycad (Native to India)
  - Blue Vanda (Blue Orchid)
  - **Red Vanda (Red Orchid)**
  - **Kuth (Saussurea lappa)**
  - Slipper orchids (Paphiopedilum spp.)
  - Pitcher plant (Nepenthes khasiana).
  - **Neelakurinji**
- Indian sandalwood is not listed in Schedule III of the Wildlife (Protection) Amendment Act, 2022. The cultivation, possession, and trade of this tree are regulated under different forest and trade laws due to its high value and history of exploitation.
- **Hence, option (c) is the correct answer.**

Q 46. D

- **Marine mammals form a fascinating group of animals including whales, dolphins, seals and the dugong, also known as the sea cow (because of their grass-eating habit, they are known as sea cow)**. Dugong are large marine mammalian grazers of the tropical Indo-west-Pacific region.
- Dugongs occur along some parts of Indian coast line and more commonly in west pacific. In Indian waters, the largest population exists between India and Sri Lanks in the Gulf of Mannar and in Palk Bay. Abundant pastures of sea grass meadows grow in the shallows, providing food. They have been reported from the Gulf of Kutch, off the Saurashtra coast and in the Andaman and Nicobar Islands.

- Dolphins are warm blooded. Unlike fish, who breathe through gills, dolphins breathe air using lungs**. Dolphins must make frequent trips to the surface of the water to catch a breath. Like dolphins, this Dugong surf on waters every 15 minutes like Gangetic Dolphins and whales, for breathing. Hence, statement 1 is correct.**
- **Unlike whale and dolphins, dugongs release breathing sounds like musical notes, hence were named Sirenades. Hence, statements 2 is correct.**
- **Seals and sea lions** belong to a group of marine mammals called pinnipeds, which means fin or flipper-footed. **These animals live in the ocean, but are able to come on land for long periods of time.** Some species have evolved the ability to hold their breath for up to two hours and dive to depths of more than 6,500 feet when looking for food. But **unlike seals, they never come up on the land. Hence, statements 3 is correct.**

Q 47. A

- Nitrogen fixation is the process by which atmospheric nitrogen (N2) is converted into usable compounds, primarily ammonia (NH3). Plants themselves do not perform this process; it is carried out by specialized bacteria (like Rhizobium) that live in a symbiotic relationship within the roots of certain plants, forming root nodules.
- Alfalfa is a nitrogen-fixing species which belongs to the legume family (Fabaceae). It forms root nodules with nitrogen-fixing bacteria.
- Amaranth is not nitrogen-fixing and it belongs to the Amaranthaceae family. It does not form root nodules or fix nitrogen.
- Soybean is a nitrogen-fixing crop and a well-known legume crop with strong nitrogen-fixing ability.
- Clover is a nitrogen-fixing crop that belongs to Fabaceae. It is widely used in pastures to restore soil nitrogen.
- Maple is not nitrogen-fixing. Maple is a non-leguminous tree (family: Aceraceae). Does not fix atmospheric nitrogen.
- Lettuce is not nitrogen-fixing. It belongs to Asteraceae.
- **Hence, option (a) is the correct answer.**

Q 48. A

- Biodiversity, crucial for understanding ecosystems, encompasses species richness, composition, and distribution. Ecological and environmental factors, such as habitat type, resource availability, and climate conditions, play pivotal roles in shaping species diversity within and among communities, categorized into alpha (within habitat), beta (between habitats), and gamma (total regional) diversity.
    - "Alpha" within a habitat refers to alpha diversity, which is the number of species and their relative abundance within a specific, local area or ecosystem. It's a measure of biodiversity within a single habitat, like a forest or a coral reef, and is often expressed as species richness (the count of different species). For example, a forest with 50 species of trees would have a higher alpha diversity than a forest with only 10 species. **Hence, Pair 1 is correctly matched.**
    - Beta (between habitats) diversity is the measure of species turnover or change between different ecosystems. It quantifies how different one habitat's species composition is from another's, with high beta diversity indicating that habitats share few species and low beta diversity showing they share many. This measurement is crucial for understanding how biodiversity shifts across a landscape and is influenced by environmental gradients. **Hence, Pair 2 is not correctly matched.**

- Gamma (total regional) diversity is the total species richness across a large geographic area that includes several different ecosystems or habitats. It is an aggregate measure of biodiversity that represents the total species pool for a region, such as a mountain range, an island, or a country. It is influenced by the diversity of habitats (alpha diversity) and the turnover of species between them (beta diversity). **Hence, Pair 3 is not correctly matched.**

Q 49. C

- A deciduous tree is one that sheds its leaves seasonally, typically during the dry season in tropical and subtropical regions (like India) or during the autumn/winter in temperate regions, to conserve water or survive cold stress.
- Jackfruit (Artocarpus heterophyllus): **The Jackfruit tree is generally considered an evergreen species,** meaning it retains its leaves throughout the year, though it may shed old leaves gradually or in response to severe drought. **Hence, statement 1 is not correct.**
- Mahua (Madhuca indica or Madhuca longifolia): **The Mahua tree is a medium-sized tree found in the mixed dry deciduous forests** of Central India. It sheds its leaves seasonally, typically before the hot summer months. **Hence, statement 2 is correct.**
- Teak (Tectona grandis): **Teak is a large, commercially important timber species that is characteristic of tropical deciduous forests.** It sheds its leaves during the dry season. **Hence, statement 3 is correct.**
- Indian Rosewood (Dalbergia sissoo): **Also known as Shisham, this is a fast-growing, hardy tree native to the Indian subcontinent.** It is classified as a deciduous tree that loses its leaves annually. **Hence, statement 4 is correct.**

Q 50. B

- Blood Pheasant (Ithaginis cruentus) is the official state bird of Sikkim. **Hence, pair 1 is correctly matched.**
- The Sarus Crane is the state bird of Uttar Pradesh, not Rajasthan. Gujarat's state bird is the Greater Flamingo. **Hence, pair 2 is not correctly matched.**
- Great Hornbill is the state bird of Arunachal Pradesh and Kerala, not Uttarakhand. Uttarakhand's state bird is the Himalayan Monal. **Hence, pair 3 is not correctly matched.**
- Greater Flamingo is the state bird of Gujarat. **Hence, pair 4 is correctly matched.**

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Q 51. A

- **Subrule 5(1) under Wetlands (Conservation and Management) Rules, 2017** provides the constitution of state wetland authority. **Hence, statement 1 is correct.**
- The State Wetland Authority, to be set up after the mass death of birds at Sambhar Salt Lake, will be headed by the **state environment minister**. **Hence statement 2 is not correct.**
- State wetland authority will also include one expert each in the fields of wetland ecology, hydrology, fisheries, landscape planning and socioeconomics to be nominated by the state government.
- State authorities also need to prepare a comprehensive digital inventory of all the wetlands within one year and will be updated every 10 years.

Q 52. A

- **Olive Ridley Turtle:** The Olive Ridley Turtle (Lepidochelys olivacea) is the most abundant sea turtle in the world and is found throughout the tropical regions of the Pacific, Atlantic, and Indian Oceans. India is well known for the mass nesting (arribada) of Olive Ridleys on beaches in Odisha.
- **Dugong:** The Dugong (Dugong dugon) is a marine mammal found in coastal waters across approximately 40 countries, spanning the Indian and Pacific Oceans. While India is home to a small, isolated breeding population in places like the Gulf of Kutch, the largest populations are found elsewhere, particularly in northern Australia and the Persian Gulf.
- **Indian Ocean Humpback Dolphin:** The Indian Ocean Humpback Dolphin (Sousa plumbea) inhabits coastal areas ranging from Southern Africa to Western Indochina, including coastal regions of India. It is not exclusive to India.
- **Ganges Shark:** The Ganges Shark (Glyphis gangeticus) is a critically endangered river shark found primarily in the freshwater and estuarine systems of the Ganges-Hooghly and Brahmaputra rivers in India and Bangladesh. However, the species is not strictly confined to India, as its range extends into neighboring Bangladesh. Early taxonomic confusion led to broader ranges being reported, but the known population is restricted to this specific regional river system.
- **Hence, option (a) is the correct answer.**

Q 53. D

- Coral reefs are one of the most ancient and dynamic ecosystems of India. The coral reefs not only provide a sanctuary to a myriad of marine life but also play a key role in protecting the coastline from erosion. In addition, people living along the 8000 km long coastal stretch of our country depend on coral reefs for their livelihood. India is centrally placed within the warm tropical region of the Indian Ocean and exhibits extensive coral reefs throughout its marine territories. In India, all the three major reef types (atoll, fringing and barrier) occur, and the region includes some of the most diverse, extensive and least disturbed reef areas of the Indian Ocean, many of which are among the least scientifically known.
- **Main coral reef locations in India**
  - **Andaman and Nicobar Islands:** Located in the Bay of Bengal, this archipelago has fringing reefs around most of its islands, as well as a 320 km long barrier reef on the west coast.
  - **Gulf of Mannar:** Situated off the southeast coast of Tamil Nadu, this area is home to fringing reefs forming a chain of 21 islands and is a designated Biosphere Reserve.
  - **Gulf of Kutch:** In the northwest, this area has some of the world's northernmost reefs, which are fringing reefs that have adapted to high salinity and tidal changes.
  - **Lakshadweep Islands:** This is India's only group of atolls, forming a ring of reefs around a central lagoon.
  - **Palk Bay:** Located on the southeast coast, this area has fringing reefs that are adapted to high sedimentation.

Q 54. B

- **Ex-situ conservation:** Conserving biodiversity outside the areas where they naturally occur is known as ex-situ conservation.
- Here, animals are reared or plants are cultivated like zoological parks or botanical gardens. Reintroduction of an animal or plant into the habitat from where it has become extinct is another form of ex-situ conservation.
- For example, the Gangetic gharial has been reintroduced in the rivers of Uttar Pradesh, Madhya Pradesh and Rajasthan where it had become extinct.

- **Seed banks, botanical, horticultural and recreational gardens are important centres for ex-situ conservation.**
- **In-situ conservati**on: Conserving the animals and plants in their natural habitats is known as in-situ conservation. The established natural habitats are:
  - National parks
  - Sanctuaries
  - Biosphere reserves and
  - Reserved forests
  - Protected forest
- **Hence, option (b) is the correct answer.**

Q 55. B

- **DRISHTI — India's AI system for freight-train safety:**
  - What is DRISHTI?
    - DRISHTI is an AI-based Locking Monitoring System developed **to detect unlocked, tampered or malfunctioning doors on moving freight wagons in real time.** It was developed through a collaboration between Northeast Frontier Railway (NFR) and IIT Guwahati's Technology Innovation & Development Foundation. **Hence, option (b) is the correct answer.**
  - Why it was needed?
    - Manual door checks on long-haul rakes are slow, intermittent and often impractical. Unsealed or tampered doors cause theft, loss of cargo, safety hazards (spillage), and operational delays — especially on long-distance freight runs. DRISHTI aims to make monitoring continuous and automated, reducing reliance on human spot-checks.
  - How it works?
    - Cameras and sensors mount on wagons at strategic points to monitor door positions and lock status.
    - Computer-vision + machine-learning models analyse the live feed to detect anomalies (open door, partial latch, tamper signals).
    - On detecting a problem, the system sends automated alerts to control centres/operations staff so corrective action can be taken without stopping the train.
  - Current status
    - A prototype has completed trials on selected wagons (about ten months of testing reported) with encouraging accuracy; plans are for refinements and scale-up across the network. The initial showcase and demos were done at NFR HQ.

Q 56. A

- **Section 38V of the Wildlife (Protection) Act, 1972 (as amended in 2006) explains the core or critical tiger habitat as well as the buffer or peripheral area of a tiger reserve.** A tiger reserve includes two parts:
  - Core or critical tiger habitat (National Park or Sanctuary status).
  - Buffer or peripheral area.
- **The phrase 'core or critical tiger habitat' is mentioned only in the Wildlife (Protection) Act, 1972, as a sequel to amendment made to the said Act in 2006. It is NOT defined in the**

Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.

- The phrase Critical Wildlife Habitats (CWLHs) **is defined only in the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, and NOT in the Wildlife (Protection) Act, 1972. CWLHs are such areas of the National Parks and Sanctuaries that are required to be kept as 'inviolate' for the purpose of wildlife conservation as determined and notified by the Ministry of Environment, Forest and Climate Change a**fter an open process of consultation by an Expert Committee. Such areas are to be clearly identified on case-to-case basis following scientific and objective criteria and only after settling the rights of tribals and other traditional forest dwellers.
- 'Core or critical tiger habitat' is different from the 'critical wildlife habitat'. Since tigers are territorial big cats, hence considering their social land tenure dynamics, the 'core / critical tiger habitat' has been viewed separately from the 'critical wildlife habitat', which is applicable to other wild animal species.
- **Under Environment (Protection) Rules, 1986 the Ministry of Environment, Forest and Climate Change notifies the area around the National Parks, Wildlife Sanctuaries and Tiger Reserves as Eco-Sensitive Zone, to regulate the development activities.** The purpose of declaring ESZ is to create some kind of "Shock Absorber" for the specialized Ecosystem, such as Protected Areas or other natural sites and is meant to act as a transition zone from areas of high protection to areas involving lesser protection. Declaration of Eco-sensitive Zones does not entail any prohibition to the vocation of the local community residing within the ESZs, including agricultural activities, house constructions etc.
    - The ESZ notifications mandate preparation of a Zonal Master Plan by the respective state governments within two years of publication of Notification. This plan is drawn up with the aim of regulating the development within the Eco-sensitive Zone (ESZ) and for ensuring compliance of the provisions of the Notification. **Hence, option (a) is the correct answer.**

Q 57. D

- **NASA's ESCAPADE mission:**
    - NASA's ESCAPADE mission is a l**ow-cost planetary science mission designed to study Mars,** specifically how the solar wind interacts with the planet's weak magnetic field. **It uses two small satellites to build a 3-dimensional picture of Mars' space environment**. The mission belongs to NASA's SIMPLEx programme, which supports innovative and economical planetary exploration. **Hence, statement 1 is not correct.**
- **Actual Objectives of ESCAPADE**
    - The mission does not explore Jupiter or its radiation belts. Instead, it focuses on understanding why Mars continues to lose parts of its atmosphere to space. By tracking charged particles around Mars, the mission will help scientists understand how the planet's ancient atmosphere disappeared over time.
    - It involves two small orbiters, not landers, named Blue and Gold, which will move around Mars from different directions.
- **Launch Vehicle and Mission Partnership**
    - The mission is also notable because NASA **selected Blue Origin's New Glenn rocket for its launch.** This makes ESCAPADE the first NASA planetary mission assigned to New Glenn. **Hence, statement 2 is not correct.**

Q 58. D

- **India State of Forest Report 2023 (ISFR 2023) is brought out by the Forest Survey of India (FSI) on a biennial basis since 1987.** FSI carries out in-depth assessment of the forest and tree resources of the country based on interpretation of Remote Sensing satellite data and field based National Forest Inventory (NFI), and the results are published in the ISFR. The India State of Forest Report 2023 is 18th such report in the series.
  - As per the present assessment, the total Forest and Tree cover is 8,27,357sq km, which is 25.17 percent of the geographical area of the country. The Forest Cover has an area of about 7,15,343sq km (21.76%) whereas the Tree Cover has an area of 1,12,014 sq km (3.41%).
  - As compared to assessment of 2021, there is an increase of 1445 sq km in the forest and tree cover of the country which includes 156 sq km increase in the forest cover and 1289 sq km increase in tree cover.
  - Top four states showing maximum increase in forest and tree cover are Chhattisgarh (684 sq km) followed by Uttar Pradesh (559 sq km), Odisha (559 sq km) and Rajasthan (394 sq km).
  - **Top three states showing maximum increase in forest cover are Mizoram (242 sq km) followed by Gujarat (180 sq km) and Odisha (152 sq km).**
  - **Area wise top three states having largest forest and tree cover are Madhya Pradesh** (85,724 sq km) followed by Arunachal Pradesh (67,083 sq km) and Maharashtra (65,383 sq km).
  - Area wise top three states having largest forest cover are Madhya Pradesh (77,073 sq km) followed by Arunachal Pradesh (65,882 sq km) and Chhattisgarh (55,812 sq km).
  - **In terms of percentage of forest cover with respect to total geographical area, Lakshadweep (91.33 percent) has the highest forest cover followed by Mizoram (85.34 percent) and Andaman & Nicobar Island (81.62 percent). Hence, option (d) is the correct answer.**
  - The present assessment also reveals that 19 states/UTs have above 33 percent of the geographical area under forest cover. Out of these, eight states/UTs namely Mizoram, Lakshadweep, A & N Island, Arunachal Pradesh, Nagaland, Meghalaya, Tripura, and Manipur have forest cover above 75 percent.

Q 59. B

- **What is Burevestnik?**
  - Burevestnik (NATO name SSC-X-9 Skyfall) is a Russian long-range nuclear-powered cruise missile concept. Instead of carrying large amounts of chemical fuel, it is reported to use a compact nuclear reactor to heat incoming air and produce thrust, which in theory can let the missile stay aloft for hours or even days and give it a very long range.
- **Key claimed features**
  - **Nuclear propulsion:** a miniaturised reactor for propulsion (not a conventional chemical engine). This is what makes it unique compared with normal cruise missiles.
  - **Unlimited-range potential (theoretical**): because the reactor does not “run out of fuel” the flight time is limited mainly by guidance, materials, or systems, not by fuel load.
  - **Nuclear warhead capable:** Russia describes it as nuclear-armed, i.e., it can carry a nuclear payload.
- **Recent test and official claims**
  - Russian authorities announced a test in late October 2025 and claimed the missile flew about 14,000 km over ~15 hours. These are state claims; independent verification is limited and experts remain cautious.

- **Hence, option (b) is the correct answer.**

Q 60. D

- **Coastal Regulation Zones (CRZ)** are areas along the coast of India that are subject to specific regulations to protect and conserve the fragile coastal environment and ecosystems, while also ensuring the sustainable development of coastal stretches and the livelihood security of local communities. **The regulations are issued under the Environment (Protection) Act, 1986.**
- For the purpose of regulation, the coastal areas are classified into following categories:
  - **CRZ-I: Ecologically Sensitive Areas**
    - **CRZ-I A:** These are the most environmentally critical zones that include ecologically sensitive areas (ESAs) and important geo-morphological features that maintain coastal integrity. Examples include mangroves (with a 50 m buffer if area >1000 sq. m), coral reefs, sand dunes, mudflats, national and marine parks, wildlife habitats, salt marshes, turtle nesting grounds, horse shoe crab habitats, **sea grass beds,** bird nesting sites, and archaeological or heritage sites. **Hence, pair 2 is not correctly matched.**
    - CRZ-I B: This category covers the intertidal zone, i.e., the area between the Low Tide Line (LTL) and the High Tide Line (HTL).
  - **CRZ-II: Developed Urban Areas:** CRZ-II includes developed land areas close to the shoreline within municipal or other legally designated urban areas. **Hence, pair 1 is not correctly matched.**
  - **CRZ-III:** Relatively Undisturbed or Rural Areas: CRZ-III consists of undeveloped or rural land areas that do not fall under CRZ-II. It is further divided into:
    - **CRZ-III A:** Areas with high population density (more than 2161 persons per sq. km, as per 2011 Census). In such areas, a No Development Zone (NDZ) of 50 meters from the HTL is applicable, provided the CZMP is approved; otherwise, a 200-meter NDZ applies.
    - **CRZ-III B:** Areas with lower population density (less than 2161 persons per sq. km). Here, a 200-meter NDZ from the HTL on the landward side must be maintained.
    - Additionally, land up to 50 meters from the HTL or the width of the creek (whichever is less) along tidal-influenced water bodies in CRZ-III is also designated as NDZ. However, the NDZ rule does not apply within notified port limits.
  - **CRZ-IV: Water Areas**
    - **CRZ-IV A: Covers the water area and sea bed from the Low Tide Line up to 12 nautical miles on the seaward side. Hence, pair 3 is not correctly matched.**
    - CRZ-IV B: Includes water bodies and their beds from the LTL on one bank to the LTL on the opposite bank, extending from the mouth of the water body up to the point where tidal influence (salinity 5 ppt) is observed during the driest season.

Q 61. D

- An indicator species is an organism whose presence, absence, or abundance reflects the health of its ecosystem and signals environmental conditions like pollution or climate change. These "bioindicators" act as an early warning system, providing valuable data on an ecosystem's status without the need for extensive monitoring. For example, lichen indicates air quality, and certain species of frogs can indicate pollution levels.
- Characteristics of indicator species

- Narrow and specific tolerance: They have a specific tolerance range for environmental factors, meaning they are sensitive to changes.
- Measurable and predictable response: Their reaction to environmental stress is clear and proportional to the level of stress.
- Easy to monitor: They are often common, easy to find, and quick to reproduce, making them relatively simple to observe and monitor.

- **Examples of indicator species**
  - **Lichens:** These symbiotic organisms of fungi and algae absorb all their nutrients and water directly from the atmosphere, without roots. This makes them very sensitive to air pollution, particularly sulfur dioxide (\(SO_{2}\)) and nitrogen (\(N\)). In areas with high air pollution, sensitive species of lichen may disappear, while more tolerant ones may dominate.
  - **Frogs:** As amphibians, frogs are highly sensitive to changes in their environment due to their permeable skin, which readily absorbs chemicals and pollutants. Their life cycle, which involves both aquatic and terrestrial stages, makes them effective indicators for the health of both water and land ecosystems.
  - **Crayfish:** Certain species of crayfish are used as indicators of freshwater quality and pollution, including heavy metals and microplastics. Their sensitivity and ability to accumulate pollutants make them valuable bioindicators for monitoring the health of aquatic environments.
  - **Dragonflies:** As they spend part of their life cycle in water as nymphs, dragonflies are excellent indicators of the health of aquatic ecosystems. They are sensitive to pollutants like heavy metals, and their presence can indicate good water quality, while their absence can signal a problem.
  - Corals: Can indicate changes in marine environments, such as sea temperature and siltation.
  - Peregrine falcons: Can indicate the presence and levels of certain pesticides.
- **Hence, option (d) is the correct answer.**

Q 62. C

- In a bid to conserve the world's tropical forests, a new fund was launched at a high-level event last week on the sidelines of the COP30 climate summit in **Belém, Brazil.** Known as the Tropical Forest Forever Facility (TFFF), the fund aims to raise and invest **$125 billion**, channelling returns to developing countries that conserve their forests. **Hence, statement 1 is correct.**
- **The TFFF is an investment fund designed as a permanent, self-financing vehicle through which net returns will be awarded to up to 74 developing tropical forest countries for keeping their existing old-growth forests intact.**
- **It aims to incentivize the conservation and expansion of tropical forests by making annual payments to Tropical Forest Countries (TFCs) that maintain their standing forest.**
- The fund will look to raise $25 billion from wealthy governments and philanthropists, and an additional $100 billion in private investment. Then, the amount will be invested into a mixed portfolio of investments, including public and corporate market bonds, with annual returns used as a reward to tropical forest nations for conserving their forests. Note that payments to countries will be based on satellite remote sensing data that track forest canopy cover annually in a low-cost and transparent manner.
- **India is set to join the Tropical Forests Forever Facility (TFFF) as an Observer**. **Hence statement 2 is correct.**

Q 63. B

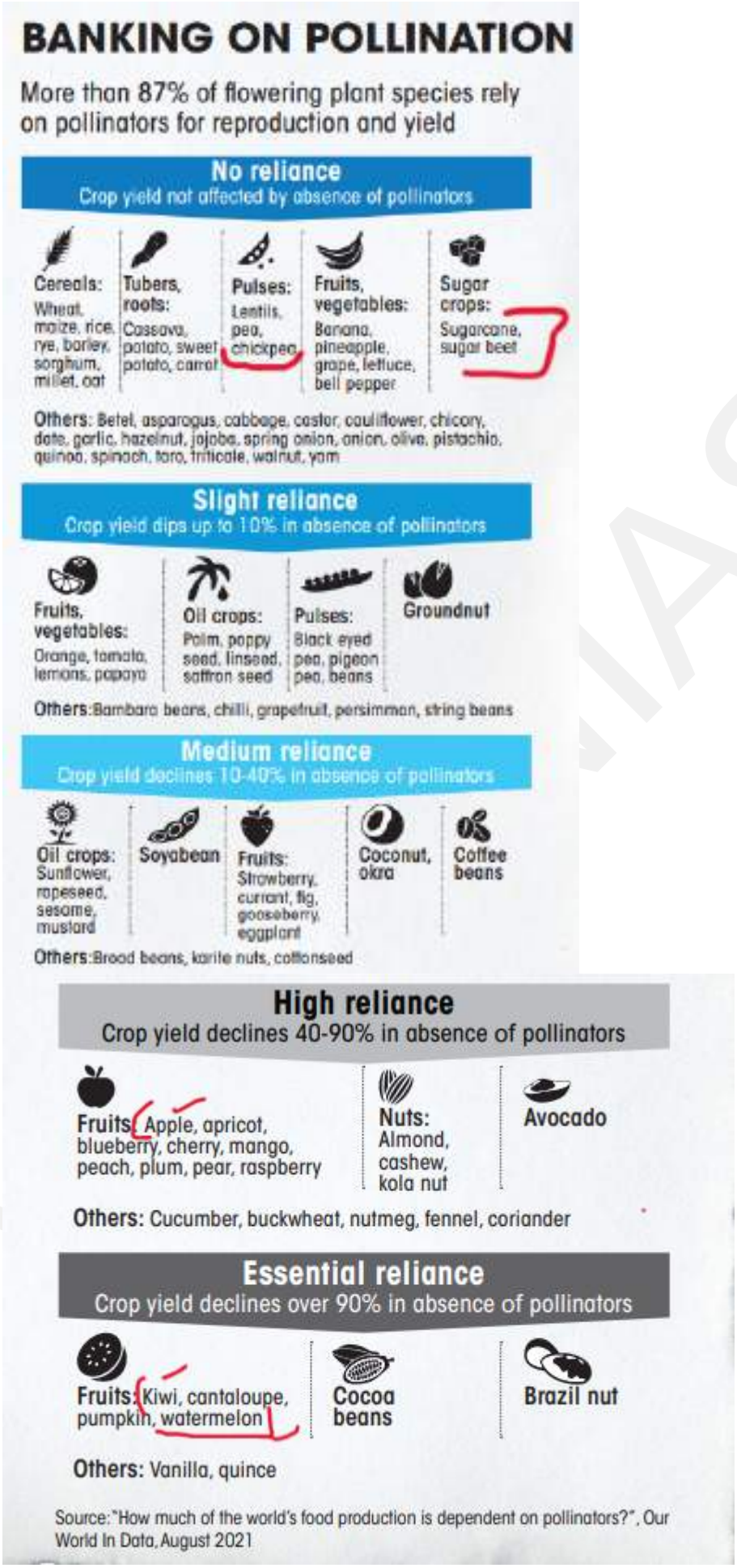
- Tor putitora, Tor khudree, and Tor mussullah are distinct species of Mahseer, large freshwater game fish from the genus Tor, known as "tigers of the water," prized for sport and significant in conservation efforts, inhabiting fast-flowing Himalayan and peninsular Indian rivers with rocky bottoms, with each species having specific regional distributions and conservation statuses, requiring urgent protection due to threats like habitat loss.
- **Key Characteristics:**
  - Tor putitora (Golden Mahseer/Himalayan Mahseer): One of the most widespread and abundant Mahseer species, found in Himalayan foothills.
  - Tor khudree (Deccan Mahseer): A significant species primarily found in the rivers of Peninsular India.
  - Tor mussullah (Mussullah Mahseer/Humpback Mahseer): Another important Mahseer species, also endemic to Peninsular India, known for its distinctive hump.
- **Hence, option (b) is the correct answer.**

Q 64. B

- **Recent Context: Recently, the Minister of Housing and Urban Affairs of India launched the Dumpsite Remediation Accelerator Programme (DRAP). Hence, statement 2 is not correct.**
- **It is a year-long, targeted initiative under Swachh Bharat Mission-Urban 2.0 to achieve the goals of Lakshya Zero Dumpsites by September 2026. Hence, statements 1 and 3 are correct.**
- The initiative aims to reclaim valuable land for public use and community development. Currently, 1,428 sites are under remediation, with 80 per cent of the legacy waste concentrated in 214 sites across 202 Urban Local Bodies (ULBs). DRAP will prioritise these high-impact locations, which collectively hold around 8.8 crore metric tonnes of legacy waste.
- DRAP, backed by ₹3,000 crore sanctioned for remediation, will run on the 5P framework of political leadership, public finance, public advocacy, project management and partnerships. Cities will be required to prepare micro-action plans, with progress monitored in real time through the DRAP portal. Larger dump sites such as Ghazipur and Bhalswa in Delhi, and Deonar in Mumbai, contribute a major share of the load and will receive priority attention due to their scale and local constraints.
- Alongside DRAP, the ministry rolled out the Urban Investment Window (UWIN), a new mechanism to help states and city corporations access larger and faster capital for urban infrastructure.

Q 65. B

- **Pollination is the act of transferring pollen grains from the male anther of a flower to the female stigma**. Over 80 percent of all flowering plant species are pollinated by animals, mostly insects, and they affect 35 percent of the world's crop production. Pollination is therefore critical to crop production. According to a 2007 report by the UN Environment Programme, 71 per cent of pollinator species have seen population declines, with 3.4 per cent driven to extinction in just the past two decades.



- **Hence, option (b) is the correct answer.**

Q 66. C

- **Recent Context: The Maldives becomes the first country to impose a generational ban on tobacco. Hence, option (c) is the correct answer.**
- The world's first generational tobacco ban took effect in Maldives on November 1, 2025
- Generational Tobacco Ban, or Lifetime Tobacco Ban, refers to a policy that permanently prohibits the sale of cigarettes or other tobacco products to anyone born after a specified date—meaning they can never legally purchase tobacco at any age.

Q 67. B

- Key Critically Endangered Mammals:
  - Pygmy Hog (Porcula salvania): The world's smallest wild pig, found in Assam's grasslands.
  - **Malabar Civet** (Viverra civettina): A rare, nocturnal civet from the Western Ghats, often considered possibly extinct.
  - Andaman Shrews: Includes the Andaman White-toothed Shrew (Crocidura andamanensis), Jenkin's Andaman Spiny Shrew (Crocidura jenkinsi), and Nicobar White-tailed Shrew (Crocidura nicobarica).
  - Rhinoceros Species: The Sumatran (Dicerorhinus sumatrensis) and Javan (Rhinoceros sondaicus) Rhinos are critically endangered, though primarily found outside India, with small populations historically linked to the region.
  - **The Namdapha Flying Squirrel is endangered, endemic to Arunachal Pradesh's Namdapha National Park, known for its elusive nature, distinctive ear tufts, and threats from habitat loss, with recent sightings offering hope after decades. The Indiana Bat is typically listed among India's near-threatened mammals.**
  - **The Great Indian Bustard (Ardeotis nigriceps) is listed as Critically Endangered on the IUCN Red List due to severe population decline caused by habitat loss, hunting, and collisions with power lines. However, it is important to note that the Great Indian Bustard is a bird, not a mammal.**
  - **The Kondana soft-furred rat (Millardia kondana) , also known as the Kondana rat or large metad, is a endangered species of rodent in the family Muridae. It is found only in the Sinhgad plateau of Maharashtra, India.**
- **Hence, option (b) is the correct answer.**

Q 68. A

- Located in the south western part of the **Loktak lake,** the park is the last remaining **natural habitat of the Sangai, the dancing deer of Manipur.** The **only floating park in the world, the Keibul Lamjao National Park** is set amidst the most lush green forests of North East. Any wildlife enthusiast would be thrilled to get a glimpse of the deer in this unique wetland habitat. One can also see other animals like the Otter, Hog Deer, jungle cat etc. apart from migratory birds and a host of water fowls. The migratory birds can be usually sighted during November to March.
- **Hence, option (a) is the correct answer.**

Q 69. A

- The Narcondam hornbill is a species of hornbill in the family Bucerotidae. It is endemic to the Indian island of Narcondam in the Andamans. Males and females have a distinct plumage. The Narcondam hornbill has the smallest home range out of all the species of Asian hornbills. **Hence, Pair 1 is not correctly matched.**

- Pygmy hog is the smallest and rarest species of wild pig in the world. It is one of the very few mammals that build its own home, or nest, complete with a 'roof'. It is an indicator species as its presence reflects the health of its primary habitat, tall and wet grasslands. It is located in the state of Assam. It is contiguous with the Royal Manas National Park in Bhutan. It is a national park, UNESCO Natural World Heritage site, a Project Tiger reserve, an elephant reserve and a biosphere reserve. **Hence, Pair 2 is not correctly matched.**
- **Kerala is considerin**g mass sterilisation of Bonnet Macaques (Macaca radiata), a widespread primate species, to manage their rising population and minimise human-wildlife conflicts. Bonnet Macaques is an Old-World monkey native to the Oriental region, especially southern India, and is known for the bonnet-like whorl of hair on its head. It inhabits evergreen and dry deciduous forests of the Western Ghats and also thrives in urban, suburban, and agricultural areas. **Hence, Pair 3 is correctly matched.**

Q 70. D

- **Eighth Central Pay Commission:**
  - **Core Composition & Timeline**
    - The Eighth Central Pay Commission is chaired by **Justice Ranjana Prakash Desai,** with a tenure of 18 months to submit its recommendations. **Hence, statement 1 is correct.**
    - The Commission's recommendations are expected to be announced in April 2027 and **will take effect retrospectively from January 1, 2026.**
    - The Eighth CPC was constituted in January 2025 and its Terms of Reference were approved by the government in October 2025.
    - The Commission will review pay, allowances, and pension structures of nearly **50 lakh central government employees and 69 lakh pensioners.**
  - **Mandate and Terms of Reference (ToR)**
    - **The ToR of the Eighth Pay Commission includes for the first time a reference to the unfunded cost of non-contributory pension schemes such as the Old Pension Scheme (OPS).**
    - The Commission is required to consider the overall fiscal position of the Centre and States, ensuring resources for development and welfare spending are not compromised. **Hence, statement 2 is correct.**
    - The ToR directs the Commission to review pay parity between Central Government employees, public sector undertakings, and private sector counterparts. **Hence, statement 3 is correct.**
    - Similar to the Seventh CPC, the Eighth Commission will assess productivity-linked pay systems and recommend rationalisation of pay matrices.
  - **Fiscal and Economic Context**
    - Pay, pension, and allowances together account for about 18% of India's total revenue expenditure in FY 2025–26.
    - The Seventh CPC had recommended an overall 23.55% increase in pay and pensions, resulting in an annual fiscal burden of over ₹1.02 lakh crore.
    - The government's total outgo on pay and pensions is projected to exceed ₹7 lakh crore in 2025–26.

- The Eighth CPC is expected to maintain a balance between employee welfare and fiscal prudence, keeping inflation and fiscal deficit concerns in view.

- **Pension Reforms Context**
  - The inclusion of "unfunded pension liabilities" in the ToR reflects concerns over renewed demands for restoration of the Old Pension Scheme (OPS).
  - The National Pension System (NPS), which replaced OPS in 2004, is a defined contribution scheme where returns depend on market performance.
  - The Unified Pension Scheme (UPS), introduced recently, assures a minimum pension of ₹10,000 per month after 10 years of qualifying service and full payout after 25 years.
- **Historical and Comparative Insights**
  - The First Pay Commission was set up in 1947, and since then, seven commissions have revised the salary structure roughly every decade.
  - The Seventh CPC, headed by Justice A.K. Mathur, introduced the Pay Matrix System, replacing the earlier system of Pay Bands and Grade Pay.
  - Historically, the implementation lag of Pay Commissions has ranged between 6 to 32 months, depending on fiscal conditions and administrative readiness.
  - The minimum pay for a newly recruited employee increased from ₹7,000 (6th CPC) to ₹18,000 (7th CPC), and could exceed ₹46,000 under the Eighth CPC.

Q 71. C

- **Recent Context**: Recently, researchers from University of Krakow demonstrated the phenomenon of 'altermagnetism'.
- Introduction
  - Researchers recently identified altermagnetism as a new class of magnetic order, distinct from both ferromagnetism and antiferromagnetism. This discovery has expanded our understanding of magnetic materials and opened new pathways for spintronics and quantum technologies.
- Core Concept
  - Altermagnetism describes a magnetic state in which a material shows **no net external magnetisation**, yet its electronic energy bands split by spin. This combination gives the material antiferromagnet-like neutrality with ferromagnet-like electronic behaviour. Although distinct from the both the traditional forms of magentism, it has some features separately common with them. **Hence statement 1 is correct.**
- Altermagnetism's uses include advanced electronics, data storage, and spintronics due to its unique properties, such as high stability and spin-polarized currents with zero net magnetization. Potential applications involve creating faster, more energy-efficient computers, memory chips, and transistors, and it may also offer new avenues for quantum computing and superconductivity research. **Hence statement 2 is correct.**

Q 72. B

- **Tsomoriri Wetland Reserve (Ladakh):** A freshwater to brackish lake lying at **4,595m above sea level**, with wet meadows and borax-laden wetlands along the shores. **The site is said to represent the only breeding ground outside of China for one of the most endangered cranes, the Black-necked crane (Grus nigricollis), and the only breeding ground for Bar-headed geese in India**. The Great Tibetan Sheep or Argali (Ovis ammon hodgsoni) and Tibetan Wild Ass (Equus kiang) are

endemic to the Tibetan plateau, of which the Changthang is the westernmost part. Hence, option (a) is correct answer.

- **Tso Kar Wetland: This high-altitude wetland complex is found at more than 4,500 metres above sea level in the Changthang region of Ladakh.** The complex includes two connected lakes, the freshwater Startsapuk Tso and the larger hypersaline Tso Kar; it presents a notable example of two such lakes existing in close proximity. The name Tso Kar refers to the white salt efflorescence on the margins of the lake caused by the evaporation of the saline waters. Inhabiting the Site are numerous threatened species including the endangered saker falcon (Falco cherrug) and Asiatic wild dog or dhole (Cuon alpinus laniger), and the vulnerable snow leopard (Panthera uncia). **The Site also acts as an important stopover ground for migratory birds along the Central Asian Flyway and is one of the most important breeding areas in India for the black-necked crane (Grus nigricollis).**
- **Chandertal Wetland (Himachal Pradesh) A high altitude lake on the upper Chandra valley flowing to the Chandra river of the Western Himalayas (4,337m asl.)** near the Kunzam pass joining the Himalayan and Pir Panchal ranges. It supports CITES and IUCN Redlisted Snow Leopard and is a refuge for many species like Snow Cock, Chukor, Black Ring Stilt, Kestrel, Golden Eagle, Chough, Red Fox, Himalayan Ibex, and Blue Sheep.
- **Hokera Wetland: Located at the northwest Himalayan biogeopgraphic province of Kashmir, back of the snow-draped Pir Panchal (1,584m asl.),** Hokera wetland is only 10 km from scenic paradise of Srinagar. A natural perennial wetland contiguous to the Jhelum basin, it is the only site with remaining reedbeds of Kashmir and pathway of 68 waterfowl species.

Q 73. D

- India, a megadiverse country with only 2.4% of the world's land area, **accounts for 7-8% of all recorded species**, including over 45,000 species of plants and 91,000 species of animals. The country's diverse physical features and climatic conditions have resulted in a variety of ecosystems such as forests, wetlands, grasslands, desert, coastal and marine ecosystems which harbour and sustain high biodiversity and contribute to human well-being. **Four of 34 globally identified biodiversity hotspots: The Himalayas, the Western Ghats, the North-East, and the Nicobar Islands, can be found in India. Hence, statement 1 is not correct.**
- Along with species richness, India also possesses high rates of endemism. In terms of endemic vertebrate groups, India's global ranking is tenth in birds, with 69 species; fifth in reptiles with 156 species; and seventh in amphibians with 110 species. Endemic-rich Indian fauna is manifested most prominently in Amphibia (61.2%) and Reptilia (47%). India is also recognized as one of the eight Vavilovian centres of origin and diversity of crop plants, having more than 300 wild ancestors and close relatives of cultivated plants, which are still evolving under natural conditions**. Hence, statement 2 is not correct.**

Q 74. C

- **CMS aims** to conserve terrestrial, aquatic and avian migratory species throughout their range. **It is an intergovernmental treaty, concluded under the aegis of the United Nations Environment Programme, concerned with the conservation of wildlife and habitats on a global scale. Hence, statement 1 is correct.**
- **The Convention on Migratory Species of Wild Animals, also known as the Bonn Convention, was adopted on 23 June 1979. The Government of India is Signatory to the Convention on Conservation of Migratory wild Animals (CMS) since 1983. Hence, statement 3 is correct.**

- CMS acts as a framework Convention. The agreements may range from legally binding treaties (called Agreements) to less formal instruments, such as Memoranda of Understanding, and can be adapted to the requirements of particular regions. The development of models tailored according to the conservation needs throughout the migratory range is a unique capacity to CMS.
- **The Fourteenth Meeting of the Conference of the Parties to the Convention on the Conservation of Migratory Species of Wild Animals (CMS COP 14) adopted the Initiative for the Central Asian Flyway introduced by India on February 17, 2024.** The aim of the initiative is to restore and maintain favourable conservation status of migratory species populations and assisting their ecological connectivity in the flyway. **Hence, statement 2 is correct.**

Q 75. A

- **As part of wildlife conservation strategy, in the year 2002,** it was decided that an area around each Protected Areas, requires to be notified as **Eco-Sensitive Zone for creating a buffer as further protection around Protected Areas (PAs).** The very purpose of declaring ESZ is to create some kind of **"Shock Absorber"** for the specialized Ecosystem, such as protected areas or other natural sites, to act as transition zone from areas of high protection to areas involving lesser protection.
- The ESZ Notification does not involve displacement and evacuation of farmers/people living in the villages.
- **The activities in the ESZ are generally regulated and not prohibitory in nature barring a few such as (i) commercial mining, stone quarrying** and crushing units; (ii) major hydroelectric project; (iii) handling of hazardous substances; (iv) discharge of untreated effluents; **(v) setting up of brick kilns**; (vi) setting up of polluting industries, which have high potential for environmental damage.
- As such, there is no prohibition on **ongoing agriculture and horticulture practices by local communities,** dairy farming, aquaculture, fisheries, poultry farm, goat farm, food related units etc. Further, the activities like **establishing hotels and resorts, felling of trees,** commercial use of natural water, infrastructure augmentation including civic amenities, widening of roads, non-polluting industries etc. are also under **regulated category. Hence, option (a) is the correct answer.**
- No new commercial construction of any kind is permitted within one Kilometre from the boundary of the Protected Area or up to extent of the Eco-Sensitive Zone whichever is nearer. However, there is no restriction for local people, they may undertake construction in their land for their use.

Q 76. D

- **Corals are invertebrate animals belonging to a large group of colourful and fascinating animals called Cnidaria**. Increased ocean temperatures and changing ocean chemistry are the greatest global threats to coral reef ecosystems. These threats are caused by warmer atmospheric temperatures and increasing levels of carbon dioxide dissolved in seawater. Coral reefs face many threats including:
- **Coral Disease:** During the last 10 years, the frequency of coral disease appears to have increased dramatically, contributing to the deterioration of coral reef communities around the globe. Most diseases occur in response to the onset of bacteria, fungi, and viruses. However, natural events and human-caused activities may exacerbate reef-forming corals' susceptibility to waterborne pathogens.

- **Crown of Thorns Starfish (COTs): Crown-of-thorns starfish are large marine invertebrates which feed on coral as adults.** The starfish, often referred to as COTS, are native to the Great Barrier Reef, and not an introduced species. They occur naturally throughout the Indo-Pacific region, on coral reefs from the Red Sea to the west coast of the Americas. Adult crown-of-thorns starfish have an enormous appetite for eating hard coral. An adult crown-of-thorns starfish can consume up to 10 m2 of coral a year. **They feed on coral as adults and with their digestive enzymes, they convert coral tissue into a coral soup, thereby damaging coral reefs.**
    - **The Crown of Thorns Starfish is a voracious coral reef predator**. They have up to 21 arms, hundreds of toxin-tipped thorns, a taste for coral, and can occur in plague proportions. Outbreaks of crown-of-thorns starfish are responsible for extensive loss of reef-building corals on the Great Barrier Reef and elsewhere. **Hence, option (d) is the correct answer.**
- **Alien invasive species:** Species that, as a result of human activity, have been moved, intentionally or unintentionally, into areas where they do not occur naturally are called "introduced species" or "alien species". The damage caused by invasive species can be devastating, through alteration of ecosystem dynamics, biodiversity loss, reduction of the resilience of ecosystems, and loss of resources, with environmental, economic as well as socio-cultural impacts.

Q 77. C

- Understanding the Ramman Festival
    - The Ramman festival represents one of Uttarakhand's most distinctive ritual traditions. The people of the **Saloor–Dungra twin villages in Chamoli district celebrate it every year during Baisakhi**, keeping alive a centuries-old cultural heritage.
- Where the Festival Takes Place
    - The twin villages of Saloor and Dungra host the festival inside the Garhwal region. The entire community gathers around the shrine of Bhumiyal Devta, the local tutelary deity. The villagers believe that Bhumiyal Devta protects their land, crops, and natural surroundings, and they dedicate the festival to him.
- What Happens During the Celebration
    - The villagers perform masked dances, enact episodes from the Ramayana, and narrate local legends through song and dialogue.
        - Performers wear masks crafted from Bhojpatra (Himalayan birch).
        - Traditional drummers (Das community) provide the rhythmic base for the dances.
        - Local bards recite stories, myths, and oral histories handed down over generations.
    - This blend of theatre, music, dance, and ritual turns Ramman into a living museum of Garhwali culture.
- Cultural Meaning and Community Life
    - The festival expresses the intimate relationship between humans, nature, and the divine. Villagers offer sprouted grains of maize and barley to Bhumiyal Devta as symbols of fertility and prosperity. The festival also reflects the region's social hierarchy and traditional roles, as different castes perform specific ritual and artistic duties.
- Global Recognition
    - **UNESCO recognised the cultural value of Ramman in 2009, placing it on the Representative List of the Intangible Cultural Heritage of Humanity.** This recognition

highlights the festival's importance in preserving oral traditions, ecological knowledge, and collective memory.

- **Hence, option (c) is the correct answer.**

Q 78. D

- **The World Wetlands Day is observed on 2nd February every year all over the world to commemorate the signing of Ramsar Convention on Wetlands of International Importance in 1971.** Union Ministry of Environment, Forest and Climate Change (MoEFCC) organised the World Wetlands Day 2025 celebrations at the Parvati Arga Ramsar Site, on 2nd February, 2025 with theme of 'Protecting Wetlands for our Common Future'. **Hence, Statement-I is not correct and Statement-II is correct.**
- **India is a party to the Convention since 1982. India has the largest network of Ramsar Sites in Asia**, making these sites a critical ecological network for conservation of global biological diversity and supporting human well-being. India has recently increased its tally of Ramsar sites (Wetlands of International Importance) to 89 by designating four more wetlands as Ramsar sites. Udhwa Lake in Jharkhand, Theerthangal and Sakkarakottai in Tamil Nadu and Khecheopalri in Sikkim. These are the first Ramsar Sites of Sikkim and Jharkhand. With the addition of these wetlands to List of Wetlands of International Importance, the total area covered under Ramsar sites is now 1.358 million ha. **Tamil Nadu continues to have maximum number of Ramsar Sites (20 sites) followed by Uttar Pradesh (10 sites).**
- **The Convention's mission is "the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world".**
- **Under the "three pillars" of the Convention, the Contracting Parties commit to:**
  - work towards the wise use of all their wetlands;
  - designate suitable wetlands for the list of Wetlands of International Importance (the "Ramsar List") and ensure their effective management;
  - cooperate internationally on transboundary wetlands, shared wetland systems and shared species.

Q 79. C

- **Categories of protected areas under the WPA, 1972:**
  - National Parks: These are the most strictly protected areas, with human activity severely restricted to protect the ecosystem, including its flora and fauna. Activities like grazing, logging, and private ownership are prohibited.
  - **Wildlife Sanctuaries**: These offer a more flexible level of protection, allowing certain human activities like grazing and the collection of forest products as long as they do not harm wildlife.
  - **Conservation Reserves:** These areas protect wildlife and biodiversity while allowing for controlled human activities like grazing and firewood collection.
  - Community Reserves: These are also designated under the Act for the conservation of wildlife and biodiversity.
  - **Tiger Reserves:** While not a protected area category itself, tiger reserves are notified under a separate chapter (Chapter IV B) of the WPA. However, the "core" or "critical tiger habitats" within them are designated as either National Parks or Wildlife Sanctuaries, and thus get protected area status.

- **Sacred groves** are protected under the Wildlife Protection Act, 1972, which empowers state governments to declare them as "community reserves". They are also indirectly protected by the Forest Conservation Act, 1980, the Biological Diversity Act, 2002, and the Forest Rights Act, 2006, which provide additional legal frameworks for their conservation and community management.

- **A biosphere reserve is an area of terrestrial or coastal/marine ecosystems recognized under UNESCO's Man and the Biosphere (MAB) programme (launched 1971) to promote harmonious interaction between people and nature.**
- **Hence, option (c) is the correct answer.**

Q 80. B

- Located in the Wangdue Phodrang district of Bhutan, the 1,200 MW Punatsangchhu-I project is a joint venture between the Governments of India and Bhutan, implemented by the Punatsangchhu-I Hydroelectric Project Authority. **Hence option (b) is the correct answer.**
- This "India-Bhutan Friendship Project" taps the Punatsangchhu (Sankosh) River with a dam and underground powerhouse complex.

Q 81. B

- Biodiversity hotspots are regions with a high concentration of endemic species and a significant loss of habitat, making them a high priority for conservation. To be classified as a hotspot, a region must have at least 1,500 endemic species (0.5% of the world's total) and have lost at least 70% of its original vegetation. Examples include the Himalayas, the Western Ghats, the Indo-Burma region, and Sundaland, which are located in and around India.
- **Key characteristics**
- High endemism: Contains a large number of species that are found nowhere else in the world.
- Habitat loss: Has experienced significant destruction of its original vegetation.
- High conservation priority: The criteria are designed to focus conservation efforts on areas where resources can protect the greatest number of unique species.
- Global distribution: While the concept was first developed for tropical forests, there are now 36 recognized hotspots across all continents except Antarctica.
- Examples of biodiversity hotspots
- Himalayas: Includes the mountains of North-East India, Bhutan, and Nepal, with a high number of endemic plant species.
- Indo-Burma: Stretches over Southeast Asia and is home to many threatened freshwater turtle species.
- Western Ghats: Spans the western coast of India and includes Sri Lanka.
- Sundaland: Covers areas like Borneo, Sumatra, and peninsular Malaysia.
- **Hence, option (b) is the correct answer.**

Q 82. A

- **Recent Context:** The issue gained attention recently when American football star Tom Brady revealed that his family's new pet dog was actually a clone of their earlier dog, created using biotechnology developed by Viagen, the same company linked to the cloning of Dolly the Sheep. The incident reopened discussions on how pet cloning works, its rising commercial use, and the ethical debate surrounding the technology.
- **Understanding Animal Cloning**

- Scientists clone animals by using a technique called Somatic Cell Nuclear Transfer (SCNT). This method directly copies the genetic material of an adult organism and creates a new individual with the same nuclear DNA.

- **How the Cloning Process Works**
  - Scientists take a somatic cell (such as a skin or blood cell) from the animal that is being cloned.
  - They remove the nucleus of this somatic cell, which contains the complete set of DNA.
  - They remove the nucleus of an egg cell, leaving an empty egg.
  - They insert the somatic-cell nucleus into the enucleated egg.
  - They stimulate the egg to divide, allowing it to develop into an early embryo.
  - They implant the embryo into a surrogate mother, where it develops normally.
  - This technique produced Dolly the Sheep in 1996, the world's first cloned mammal from an adult cell.
  - **Hence, option (a) is the correct answer.**
- **Why This Method Matters**
  - The cloned animal becomes a genetic twin of the donor animal.
  - It shares the same nuclear DNA, though its personality and behaviour still depend on environment and upbringing.
  - This method is widely used in scientific research, breeding, and—more recently—commercial pet cloning.

Q 83. B

- Encephalomyocarditis Virus (EMCV) infection:
  - EMCV infection is a rodent-borne viral disease known to infect pigs and a variety of zoo animals, transmitted via food or water contaminated with rodent excreta; it can cause sudden, often fatal disease in susceptible species and has no widely available vaccine.
- Details:
  - Agent & hosts: EMCV is a virus that commonly infects pigs and has been reported in diverse captive zoo species (big cats, elephants, etc.).
  - Transmission: The virus is typically spread when food or water is contaminated by rodent urine or faeces — exactly as the passage describes.
  - Clinical picture: EMCV can cause acute, peracute illness with cardiac lesions and sudden death, often with little or no obvious premonitory signs — matching the sudden collapse of the elephant Shankar.
  - Prevention/treatment: There is no standard vaccine or specific antiviral broadly available for EMCV in zoo settings; this makes prevention (rodent control, hygiene) the main strategy. **Hence, option (b) is the correct answer.**
- Other options:
  - **Leptospirosis** — a bacterial disease (Leptospira). Transmitted by contact with contaminated water/soil and rodents, but it is a bacterial zoonosis treated with antibiotics and shows different clinical signs (fever, jaundice, renal involvement).
  - **Plague:** Plague is a serious infectious disease caused by the bacterium Yersinia pestis **(not virus),** which is spread to humans mainly through the bites of infected fleas or contact with infected animals.

- **Anthrax:** Anthrax is a serious infection caused by the bacterium Bacillus anthracis that typically affects animals and can spread to humans through contact with infected animals or their contaminated products.

Q 84. D

- **Recent Context: The Madhya Pradesh government has begun work to develop the Nauradehi Wildlife Sanctuary as the third home for cheetahs in the state, after Kuno National Park and Gandhi Sagar Wildlife Sanctuary. Hence, option (d) is the correct answer.**
- The expanse of Nauradehi is located on a plateau spread across Sagar and Damoh districts in the Bundelkhand region. While it has a deciduous forest with sal, teak, mahua, bamboo and bel trees in abundance, there are also extensive continuous grasslands, which act as grazing lands for herbivores, with a substantial prey base, including four different categories of antelopes, and other animals such as wild boar.
- Twenty-five tigers have already made Nauradehi their home since 2018. Add to that an estimated 100 crocodiles, Indian wolves, wild dogs and panthers.

Q 85. C

- Silverfish (Lepisma saccharinum and similar species) is a small, primitive, wingless **insect** known for its silvery color and fish-like movements. It belongs to the Order Zygentoma.
- Dragonfly (Order Odonata) is a flying insect characterized by large, multifaceted eyes, two pairs of strong, transparent wings, and an elongated body. They are efficient predators.
- Cicada (Order Hemiptera) is a large, loud insect known for the male's distinct, buzzing song produced by vibrating membranes (tymbals). They have piercing-sucking mouthparts and two pairs of wings.
- All three animals possess the defining characteristics of insects: an exoskeleton, a three-part body (head, thorax, and abdomen), three pairs of jointed legs, and usually two pairs of wings (though Silverfish are wingless). Therefore, they are all classified as Insects.
- **Hence, option (c) is the correct answer.**

Q 86. B

- **Recent Context: India ranks among the ten countries most affected by extreme weather events over the past three decades, according to the latest Climate Risk Index (CRI) 2026 released by Germanwatch at COP30 in Belém, Brazil. Covering data from 1995 to 2024, the index places India ninth, highlighting its growing vulnerability to heat waves, floods and cyclones that have intensified under global warming. Hence, option (b) is the correct answer.**
- During this period, India endured nearly 430 extreme weather events, from deadly heat waves and intense monsoons to devastating cyclones, resulting in over 80,000 deaths, 1.3 billion people affected, and economic losses of nearly $170 billion (inflation-adjusted). The report identifies India as a country suffering from “continuous climate threats”, where recurring disasters leave little time for recovery before the next event strikes.

Q 87. B

- The Indian squirrel (referring generally to species like the Indian Palm Squirrel, Funambulus palmarum) is primarily an arboreal (tree-dwelling) animal. While it may occasionally dig shallow scrapes in the ground for food or caches, its main habitat and nesting areas are constructed in tree hollows or nests (dreys) made of leaves and twigs high up in trees. It does not predominantly construct its habitat by burrowing in the ground. **Hence, option 1 is not correct.**

- Earthworms (Lumbricina) are the classic examples of burrowing animals. They spend almost their entire lives underground, creating complex networks of burrows and tunnels in the soil. These burrows serve as their shelter, protection from predators and extreme weather, and are essential for their movement as they feed on organic matter. **Hence, option 2 is correct.**
- Marmots (Marmota spp.) are large ground squirrels found in mountainous regions. They are highly dependent on extensive, deep burrow systems for survival. These burrows provide shelter for raising young, escaping predators, and are critically important for hibernation (a long period of inactivity during cold months). **Hence, option 3 is correct.**

Q 88. D

- **Mangroves are salt-tolerant trees and shrubs** that grow along tropical and subtropical coastlines and estuaries.
- These forests grow in sheltered low lying coasts, estuaries, mudflats, tidal creeks backwaters (current less, coastal waters held back on land), marshes and lagoons of tropical and subtropical regions.
- They are distributed over the east and west coast and island of Andaman and Nicobar. Since mangroves are located between the land and sea they represent the best example of an ecotone.
- These unique ecosystems are vital for coastal protection, providing habitats for diverse species, serving as nurseries for fish, and protecting shorelines from storms and erosion. Mangroves have special adaptations to survive in salty and low-oxygen environments, such as specialised roots and salt-secreting leaves.
- Key characteristics and adaptations
  - **Salt tolerance(halophytic):** Mangroves can survive in highly saline conditions by either excreting salt through glands on their leaves or blocking salt from entering their roots.
  - Breathing roots: **Many species have "aerial roots"** that provide structural support and have pores called lenticels to allow them to "breathe" in waterlogged soil. These pores close during high tide to prevent drowning.
  - Habitat: They thrive in the intertidal zone, creating a unique interface between land, freshwater, and the sea.
  - Intricate roots: The complex root systems create complex habitats with many nooks and crannies for other organisms.
  - The mangrove forests include a diverse composition of trees and shrubs.
  - **Tolerant to high temperatures**.
- H**ence, option (d) is the correct answer.**

Q 89. B

- **A detritivore is an organism that feeds on dead and decaying organic matter, contributing to decomposition and nutrient recycling.**
- Earthworms are detritivores as earthworms feed on decaying organic matter mixed with soil. They play a key role in decomposition and soil formation.
- Vultures are not detritivores. Vultures are scavengers, feeding on carcasses of dead animals. While they consume dead matter, they do not process decomposing organic material like soil or plant litter, so they are not classified as detritivores.
- Dung Beetles are detritivores. They feed on animal dung, which is a form of decomposing organic material. This places them clearly under detritivores.

- Jellyfish are not detritivores. Jellyfish are carnivores, feeding mainly on plankton, fish larvae, and small marine organisms. They do not consume decomposing organic matter, so they are not detritivores.
- Millipedes are detritivores as many millipede species feed on decaying leaves, wood, and other plant debris. Hence, they are recognized detritivores.
- **Hence, option (b) is the correct answer.**

Q 90. B

- Melanism in tigers is a genetic condition, often called pseudo-melanism, caused by a mutation in the Taqpep gene, leading to enlarged, closely spaced stripes that appear almost black. **Hence, statement 1 is correct.**
- Melanistic tigers, also called black tigers, are a rare colour variant of the Bengal tiger caused by a genetic mutation that leads to increased melanin production. They are distinguished by their dark coat and wide, thick stripes.
- Similipal Tiger Reserve (STR) in Odisha is globally unique for having a significant population of these pseudo-melanistic tigers, a trait not found in other wild habitats. The most recent estimates from the All-India Tiger Estimation show around 10 melanistic tigers in Similipal, though some reports mention more individuals have been captured on camera traps. **Hence, statement 2 is not correct.**
- Melanistic tigers, being a rare variant of the Bengal tiger, are protected under Schedule I of India's Wildlife (Protection) Act, 1972 (WLPA), which offers the highest level of protection for endangered species, prohibiting hunting, trade, and giving the harshest penalties for violations, just like other tigers and endangered animals listed there. **Hence, statement 3 is correct.**

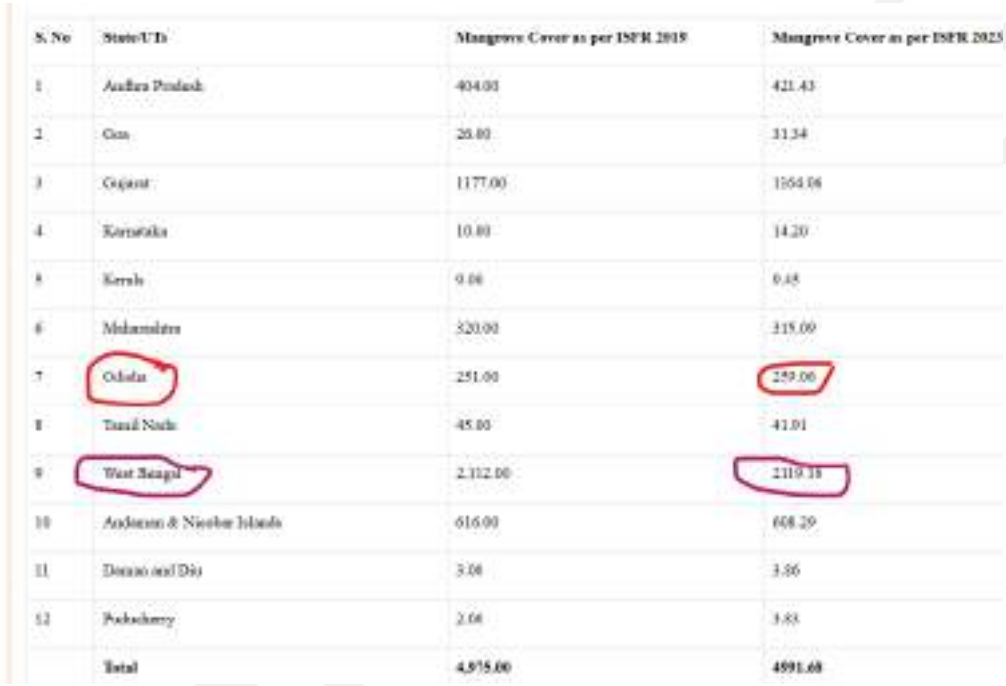
Q 91. B

- The Mangrove Initiative for Shoreline Habitats & Tangible Incomes (MISHTI) scheme is a government-led initiative aimed at increasing the mangrove cover along the coastline and on saltpan lands. The scheme is primarily focused on the Sundarbans delta, Hoogly Estuary in West Bengal, India and other bay parts of country, but also includes other wetlands in the country. **MISHTI envisages restoration/reforestation of Mangroves covering approximately 540 km2, spreading across 9 States (Gujarat, West Bengal, Odisha, Andhra Pradesh, Tamil Nadu, Kerala, Maharashtra, Karnataka, and Goa) and 3 Union Territories (Andaman & Nicobar Islands, Lakshadweep, and Puducherry) for a period of five years commencing 2023-24 onwards. Hence, statement 1 is correct.**
- The objective of the scheme is to conserve and restore the mangrove ecosystem, which is critical to mitigating the effects of climate change, preventing coastal erosion, and sustaining local livelihoods. **Under the MISHTI scheme, the government is providing financial assistance to local communities to undertake mangrove plantation activities.** The scheme also involves awareness campaigns to educate people about the importance of mangroves and their role in protecting the environment. **Hence, statement 2 is correct.**
- **Funding Cycle of MISHTI: 80% of the project cost is borne by the Government of India, while the remaining 20% is contributed by the respective State Governments. Hence, statement 3 is not correct.**

Q 92. D

- **Mangrove forests in India are found along the coastline of 9 States and 4 Union Territories. Forest Survey of India (FSI), an organization mandated with forest survey under Ministry of**

Environment Forest and Climate Change (MoEFCC) publishes "India State of Forest Report" (ISFR) biennially.

- **As per latest India State of Forest Report (ISFR) 2023,** the total mangrove cover in the country is 4,991.68 km2, which accounts for 0.15 % of the country's total geographical area. **In comparison to ISFR 2019 and ISFR 2023, there has been increase of 16.68 km2 in the country's mangrove coverage. There has been net increase of 363.68 Sq.km (7.86%) in Mangrove cover area of the country in 2023 as compared to 2013 and net increase of 509.68 Sq.km (11.4%) between 2001 and 2023. Hence, statement 2 is not correct.**
- **As per the ISFR 2023, West Bengal has the largest mangrove area in India, not Odisha.** West Bengal's mangrove cover is significantly larger than any other state. **Hence, statement 1 is not correct.**
- 

S. No	State/UTs	Mangrove Cover as per ISFR 2019	Mangrove Cover as per ISFR 2023
1	Andhra Pradesh	404.00	421.43
2	Goa	26.00	31.34
3	Gujarat	1177.00	1054.06
4	Karnataka	10.00	14.20
5	Kerala	9.00	9.65
6	Maharashtra	320.00	335.09
7	Odisha	251.00	259.06
8	Tamil Nadu	45.00	41.01
9	West Bengal	2,112.00	2119.18
10	Andaman & Nicobar Islands	616.00	608.29
11	Daman and Diu	3.00	3.86
12	Puducherry	2.00	3.83
	Total	**4,975.00**	**4991.68**

Q 93. C

- **Recent Context:** Recently, the Asia-Pacific Economic Cooperation (APEC) Summit 2025, held in Gyeongju, South Korea, concluded with the adoption of the APEC Leaders' Gyeongju Declaration.
- The Asia-Pacific Economic Cooperation (APEC) is a regional economic forum established in 1989 to leverage the growing interdependence of the Asia-Pacific. APEC's 21 members aim to create greater prosperity for the people of the region by promoting balanced, inclusive, sustainable, innovative and secure growth and by accelerating regional economic integration.
- **APEC membership includes: Australia; Brunei Darussalam; Canada; Chile; People's Republic of China; Hong Kong, China; Indonesia; Japan; Republic of Korea; Malaysia; Mexico; New Zealand; Papua New Guinea; Peru; the Philippines; the Russian Federation; Singapore; Chinese Taipei; Thailand; the United States of America; Vietnam.**

- **India is not a part of the APEC. Hence, option (c) is the correct answer.**

Q 94. D

- **Recent Context: In Chess, Raahul VS became India's 91st Grandmaster after winning the 6th ASEAN Individual Championship with a round to spare. Hence, statement 2 is not correct.**
- **Grandmaster is the highest title or ranking that a chess player can achieve. The Grandmaster title — and other chess titles — is awarded by the International Chess Federation, FIDE (acronym for its French name Fédération Internationale des Échecs), the Lausanne-Switzerland-based governing body of the international game. Hence statement 1 is not correct.**
- In 1950, FIDE started to formally designate the best players as Grandmasters, based on a set of laid-down criteria. Grandmaster norms are defined by a set of complex and rigorous rules regarding tournaments, games, and players, that are set out in the FIDE Title Regulations. (The current regulations were approved by the FIDE Council on October 27, 2021, and came into effect on January 1, 2022). Each norm is very difficult to attain. Broadly, a player must have a performance rating of 2,600 or higher in a FIDE tournament that has nine rounds, playing against several opponents from federations or countries other than the one to which the player belongs, and those opponents must be titled themselves.
- Russia has the most number of grandmasters with more than 250 grandmasters.
- Besides Grandmaster, the Qualification Commission of FIDE recognises and awards seven other titles: International Master (IM), FIDE Master (FM), Candidate Master (CM), Woman Grandmaster (WGM), Woman International Master (WIM), Woman FIDE Master (WFM), and Woman Candidate Master (WCM).

Q 95. A

- **Biosphere Reserves** are areas of terrestrial, coastal or ecosystems internationally recognized under UNESCO's Man and Biosphere (MAB) Programme.
- **Cold Desert Biosphere Reserve: The CDBR (**now part of prestigious Man and Biosphere programme of UNESCO) is India's first high altitude Cold desert biosphere reserve that has been included in World network of biosphere reserves by UNESCO on 27 Sep, 2025. Spanning 7,770 km^2 at altitudes ranging from 3,300 to 6,600 meters, the Cold Desert Biosphere Reserve encompasses windswept plateaus, glacial valleys, alpine lakes, and rugged high-altitude deserts. **It covers the Pin Valley National Park and its surroundings, Chandratal and Sarchu & Kibber Wildlife Sanctuary.**

- It is home to many rare and endangered species, including the snow leopard, Tibetan antelope, and Himalayan wolf. It also has a variety of flora that has been used for medicinal purposes and is considered to be of Outstanding Universal Value for conservation. **Hence, option (a) is the correct answer.**

- **Nanda Devi Biosphere Reserve**, located in the Himalayan Mountains in the northern part of the country, includes as core areas the Nanda Devi and Valley of Flowers National Parks, which are one World Heritage site.
- **Simlipal Biosphere Reserve** contains Simlipal National Park. Located in northeast India, the Similipal Biosphere Reserve lies within two biogeographical regions: the Mahanadian east coastal region of the Oriental realm and the Chhotanagpur biotic province of the Deccan peninsular zone.
- **Achanakmar-Amarkantak Biosphere Reserve** includes the Achanakmar National Park and Achanakmar Tiger Reserve.The Achanakmar-Amarkantak Biosphere Reserve is the most dramatic and ecologically diverse landscape in the Chhattisgarh and Madhya Pradesh states of India.

Q 96. C

- **Conservation Reserves** can be declared by the **State Governments in any area owned by the Government,** particularly the areas adjacent to National Parks and Sanctuaries and those areas which link one Protected Area with another. Such declaration should be made after having consultations with the local communities. **Hence, statement 1 is correct and statement 2 is not correct.**
- Conservation Reserves are declared for the purpose of protecting landscapes, seascapes, flora and fauna and their habitat. **The rights of people living inside a Conservation Reserve are not affected. Hence, statement 3 is correct.**

Q 97. A

- **Introduction**
  - The Indian Space Research Organisation (ISRO) achieved another major milestone with the successful launch of GSAT-7R (also known as CMS-03), an advanced multi-band communication satellite designed primarily for the Indian Navy. The mission represents a significant stride in India's efforts toward indigenous defence communication capability and self-reliance in space technology.
- **The Launch and Mission Objective**
  - The GSAT-7R satellite was launched aboard the Launch Vehicle Mark-3 (LVM3-M5) from the Satish Dhawan Space Centre (SDSC), Sriharikota. **Hence, statement 1 is correct.**
    - It marks the fifth operational flight of the LVM3 rocket, which earlier carried the Chandrayaan-3 mission to the Moon.
    - The satellite, weighing around 4,400 kg, was placed in a Geosynchronous Transfer Orbit (GTO) and will later shift to its final Geostationary Orbit (GEO) using its onboard propulsion system.
  - The satellite's primary purpose is to provide secure, high-capacity voice, data, and video communication links for the Indian Navy across the Indian Ocean Region (IOR). It ensures uninterrupted connectivity for maritime surveillance and fleet coordination.
- **Strategic Significance**
  - **GSAT-7R replaces the ageing GSAT-7 (Rukmini)**, launched in 2013, which had served as the Navy's first dedicated communication satellite.

- The new satellite:
  - **Expands the Navy's digital communication footprint across wider oceanic zones.**
  - Enhances real-time operational coordination between ships, submarines, and aircraft.
  - Symbolises the spirit of Aatmanirbhar Bharat, as it is fully indigenously developed.
- This launch also demonstrates LVM3's evolving reliability as India's workhorse heavy-lift launcher, reducing dependency on foreign vehicles like Ariane-5.
- **Hence, statement 2 is correct.**

- **The Heaviest Satellite:**
  - A common misconception has emerged that GSAT-7R is the heaviest indigenously built communication satellite.
  - While it is indeed the heaviest communication satellite launched to GTO from Indian soil, it is not the heaviest satellite ever built by ISRO.
    - **GSAT-11, launched in 2018 aboard an Ariane-5 rocket from French Guiana, remains ISRO's heaviest communication satellite, weighing about 5,854 kg.**
    - In comparison, GSAT-7R weighs about 4,400 kg, making it lighter than GSAT-11 **but still the heaviest launched domestically by India.**
  - **Hence, Statement 3 is not correct.**

Q 98. D

- **Recent Contex:** The Supreme Court ordered the Commission for Air Quality Management (CAQM) to issue directions against holding outdoor sports.
- **Statement 1 is not correct:** CAQM is a statutory body established under the "Commission for Air Quality Management in National Capital Region & Adjoining Areas Act, 2021. **It is an autonomous body and is not accountable to or governed by the CPCB (Central Pollution Control Board)**.
- **Statement 2 is not correct**: CAQM is empowered to coordinate actions, issue binding directions, inspect and enforce measures among state governments and authorities of the NCR & adjoining states for air-quality management. CAQM's jurisdiction is not pan-India; it covers only the National Capital Region (NCR) and its adjoining areas (in states like Punjab, Haryana, Rajasthan, Uttar Pradesh). **Hence statement 2 is not correct.**
- **About GRAP:**
  - **The Graded Response Action Plan (GRAP) is a set of anti-air pollution measures, generally implemented in Delhi-NCR during the winter.**
  - The Commission for Air Quality Management (CAQM), an autonomous body tasked with improving the air quality in Delhi and its adjoining areas, made crucial changes to the Graded Response Action Plan (GRAP).

Q 99. C

- IUCN Red List of Threatened Species, one of the most well-known objective assessment systems for classifying the status of plants, animals, and other organisms threatened with extinction. The International Union for Conservation of Nature (IUCN) unveiled this assessment system in 1994. It contains explicit criteria and categories to classify the conservation status of individual species on the basis of their probability of extinction.
- **Criteria and assessemen**t

- The IUCN system uses a set of five quantitative criteria to assess the extinction risk of a given species. In general, these criteria consider:
  - The rate of population decline
  - The geographic range
  - Whether the species already possesses a small population size
  - Whether the species is very small or lives in a restricted area
  - Whether the results of a quantitative analysis indicate a high probability of extinction in the wild
- After a given species has been thoroughly evaluated, it is placed into one of several categories. (The details of each have been condensed to highlight two or three of the category's most salient points below.) In addition, three of the categories (CR, EN, and VU) are contained within the broader notion of "threatened."
- **Hence, option (c) is the correct answer.**

Q 100. A

- **Similipal National Park (Odisha)** stands apart from other tiger sanctuaries globally because it is home to a **rare genetic tiger variant known as the pseudo-melanistic or "black" tiger.** Approximately half of Similipal's estimated 30 tigers display this unique pigmentation, caused by an overproduction of melanin that results in dark, thick stripes fused closely together over a golden brown coat. This trait makes the black tiger one of the most mysterious and elusive wildlife treasures in the world, found nowhere else but this reserve. **Hence, pair 1 is correctly matched.**
- **Golden langurs** are incredible creatures found only in the forests of India and Bhutan. **Chakrashila Wildlife Sanctuary is ecologically important protected area in Assam, India. It is famous for the golden langur** and is the second protected habitat for golden langur in India. The Golden Langurs (Trachypithecus geei) is an elusive and rare primate, celebrated for its majestic beauty**. There are less than 1,000 of them left in the wild, and they're considered "Endangered" by the IUCN. Hence, pair 2 is not correctly matched.**
- **Hoolock gibbons are** primates like the monkeys, langurs and chimpanzees. It is also an ape, which are the primates evolutionarily closest to humans. And it is the only ape found in India,
  - **The western hoolock gibbon (Hoolock hoolock):** The western hoolock gibbon has a much wider range, as it **is found in all the states of the north-east,** restricted between the south of the Brahmaputra river and east of the Dibang river. Outside India, it is found in eastern Bangladesh and north-west Myanmar. The western hoolock is listed as Endangered in the IUCN Redlist.
  - **The eastern hoolock gibbon (Hoolock leuconedys):T**he eastern hoolock gibbon inhabits **specific pockets of Arunachal Pradesh and Assam in India,** and southern China and north-east Myanmar, the eastern hoolock is listed as Vulnerable. **Hollongapar Gibbon Sanctuary in Assam is best known for its population of Hoolock Gibbon. Hence, pair 3 is not correctly matched.**