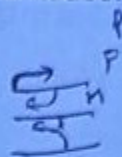


1. Consider the following statements regarding atmospheric circulation :

1. In the Ferrel cell, surface winds move poleward and are deflected westward due to the Coriolis force, forming the prevailing westerlies in the mid-latitudes.
2. In the Hadley cell, surface winds move equatorward and are deflected eastward due to the Coriolis force, forming the prevailing trade winds in the low latitudes.

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. Which of the following statements is **incorrect** ?

- (a) Geothermal energy from heated areas of the Earth's crust is extracted by drilling wells to bring steam or hot water to the surface.  
(b) In fission, the mass of the end products is less than the mass at the beginning, but in fusion, this is not the case.  
(c) Biomass is an example of indirect solar energy because it includes organic materials produced by photosynthesis.  
(d) Harnessing wind energy is profitable on islands and in mountain passes.

3. Consider the following statements about ground water and identify the **incorrect** option :

- (a) Normally, fresh groundwater overlies salty ground water.  
(b) Aquifer depletion refers to the removal of more groundwater by humans than that can be recharged by precipitation or melting snow.  
(c) Ground water depletion may even result in sinking of land.  
(d) Confined aquifer is a groundwater storage area located above a layer of impermeable rock.

4. Consider the following statements about the sex ratio in India :

1. Sex ratio in India is calculated as the number of females per thousand males.
2. Child sex ratio in India is calculated for 0-14 age population.
3. While child sex ratio in India is adverse, the sex ratio for the elderly population (60+) is favourable.
4. Overall sex ratio as per Census 2011 was highest in Tamil Nadu.

Which of the above statements are correct ?

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



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5. What is the correct descending order of Total Fertility Rate (TFR) of selected states of India as per National Family Health Survey-5, 2019-2021 (NFHS-5, 2019-2021) ?
- i-Sikkim, ii-Meghalaya, iii-Punjab, iv-Gujarat
  - i-Meghalaya, ii-Gujarat, iii-Punjab, iv-Sikkim
  - i-Gujarat, ii-Punjab, iii-Meghalaya, iv-Sikkim
  - i-Punjab, ii-Gujarat, iii-Sikkim, iv-Meghalaya

6. For the Assertion (A) and Reason (R) given below, choose the correct alternative from the following :

**Assertion (A) :** The rural-to-rural migration stream has a low volume in India.

**Reason (R) :** Large number of people from rural India migrate to foreign countries.

- Both A and R are true and R is the correct explanation of A.
  - Both A and R are true, but R is not the correct explanation of A.
  - A is true, but R is false.
  - A is false, but R is true.
7. Consider the following statements about rice cultivation in India :
- Cultivation of rice generally requires high temperatures above  $25^{\circ}\text{C}$  and annual rainfall above 100 cm.
  - Loamy and clayey soils are ideal for rice cultivation.
  - Tar-wattar technique of rice cultivation uses less water than the traditional puddling method, but the crop also takes more time to mature.

Which of the above statement are correct ?

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

8. Consider the following statements about census town :

- It should have a minimum population of 5000 persons.
- At least 75% of the total population should be engaged in non-agricultural activities.
- It should have a population density of at least 300 persons per sq. km.

How many of the above statements hold/holds true as per the Census of India definition ?

- Only one
- Only two
- All three
- None of the above

9. Which of the following countries/regions practise Mediterranean type of agriculture ?

- Turkey
- California in USA
- Chile
- Australia
- South Africa

Select the correct answer from the options given below :

- 1 and 2 only
- 1, 2 and 5 only
- 1, 4 and 5 only
- 1, 2, 3, 4 and 5



10. Which of the following is *not* a breed of cow ?

- (a) Gir (b) Mewati  
(c) Surti (d) Tharparkar

11. What is the correct East-to-West order of the following rivers of India ?

- (a) Baitarni, Damodar, Mahanadi, Pennar  
(b) Damodar, Mahanadi, Pennar, Baitarni  
(c) Damodar, Mahanadi, Baitarni, Pennar  
(d) Damodar, Baitarni, Mahanadi, Pennar

12. Which of the following is/are *not* a type of mica ?

1. Argentine 2. Biotite  
3. Proustite 4. Muscovite

Choose the correct option :

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

13. Consider the following statements about the Indian Railways :

1. Kavach is an Automatic Train Protection (ATP) system introduced by the Indian Railways to avoid accidents.
2. The Diamond Quadrilateral project of the Indian Railways is related to high-speed rail network.
3. India's first under-construction bullet train project, spanning 508 km, is between Sabarmati and Mumbai.
4. The Indian Railways has set a target of becoming a Net Zero Carbon Emitter by 2030.

How many of the above statements is/are true ?

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

14. Match the following volcanoes with the places where they are located :

Name of Volcano	Place
A. Mount Merapi	1. Antarctica
B. Taal	2. Philippines
C. Kilauea	3. Indonesia
D. Mount Erebus	4. United States of America

Choose the correct code :

- A B C D  
(a) 3 2 4 1  
(b) 3 1 2 4  
(c) 2 3 4 1  
(d) 1 2 3 4



15. Match the following terms related to mountain formation with their examples :
- | <i>Process of formation of mountain</i>         | <i>Example of mountain</i> |
|---|----------------------------|
| A. Collision of two continental plates          | 1. Himalayas               |
| B. Convergence of oceanic and continental plate | 2. Black Forest            |
| C. Upward or downward movement of blocks        | 3. Andes                   |
| D. Residual mountain                            | 4. Scottish Highlands      |

Choose the correct code :

- |   | A | B | C | D |
|---|---|---|---|---|
| (a)                                     | 1 | 3 | 4 | 2 |
| <input checked="" type="checkbox"/> (b) | 1 | 3 | 2 | 4 |
| (c)                                     | 2 | 1 | 3 | 4 |
| (d)                                     | 3 | 1 | 4 | 2 |

16. In context of elections, consider the following statements regarding VVPAT :

- It stands for Visible Voting Paper for Adding Transparency.
- When a vote is cast, a slip is printed and remains exposed through a transparent window for seven seconds, showing the serial number, name and symbol for the candidate.
- VVPATs were first used in a bye-election in Nagaland in 2013.

Which of the above statements is/are correct ?

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

17. Consider the following Constitutional Provisions :

- No demand for a grant shall be made except on the recommendation of the President.
- No tax shall be levied or collected except by the authority of law.
- Parliament can reduce or abolish a tax but cannot increase it.

How many of the above statements is/are correct ?

- (a) Only one      ☒ (b) Only two      (c) All three      (d) None of the above

18. In reference to Money Bill, consider the following statements :

- The Constitution defines the money bill.
- It can be introduced only by a minister and that too, only on the recommendation of the President.
- There shall be endorsed on every Money Bill when it is transmitted to the Rajya Sabha, and when it is presented to the President for assent, the certificate of the Speaker of the Lok Sabha signed by him that it is a Money Bill.

Which of the above statements is/are correct ?

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



19. In connection with the procedure for amendment to the Constitution, consider the following statements :

1. An amendment to the Constitution can be initiated only by the introduction of a bill for the purpose in either House of Parliament but not in the state legislatures.
2. The bill can be introduced only by a minister and does not require prior permission of the President.
3. Each House must pass the bill separately and in case of a disagreement between the two Houses, there is a provision for holding a joint sitting of the two Houses for the purpose of deliberation and passage of the bill.

How many of the above statements is/are correct ?

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

20. Match List-I with List-II and select the correct answer from the codes given below :

List-I

(Acts)

A. Government of India Act, 1858

B. Indian Councils Act, 1861

C. Indian Councils Act, 1909

D. Government of India Act, 1919

List-II

(Provisions)

1. Introduction of bi-cameral legislature for the first time

2. Complete imperial control by Secretary of State for India

3. Inclusion of non-official members in the Executive Council of Governor General for the first time

4. Separate representation of the Muslim community

Choose the correct option :

- |     | A | B | C | D |
|-----|---|---|---|---|
| (a) | 2 | 3 | 4 | 1 |
| (b) | 3 | 2 | 1 | 4 |
| (c) | 2 | 4 | 3 | 1 |
| (d) | 3 | 4 | 1 | 2 |

21. Consider the following statements in connection with the Vice-President of India :

1. The electoral college of the Vice-President consists of both elected and nominated members of the Parliament, but not of the state legislative assemblies.
2. He can only be removed from office through impeachment on the grounds mentioned in the Constitution for his removal.
3. Before entering upon his office, he makes an oath as mentioned in Schedule III of the Constitution.
4. He appoints the Deputy Chairperson of the Upper House to act in his absence.
5. He has a casting vote in case of a tie.

Which of the above statements are correct ?

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



22. In reference to Fundamental Right under Article 20, consider the following statements :
1. Protection under this right is available only to the citizens of India.
  2. While criminal laws can be imposed retrospectively, civil laws cannot.
  3. The protection against self-incrimination extends to both civil and criminal proceedings.

How many of the above statements is/are **incorrect** ?

- (a) Only one (b) Only two  
(c) All three (d) None of the above
23. In connection with the Preamble to the Indian Constitution, which of the following statements is correct ?
- (a) The Preamble is justiciable.
  - (b) The Preamble has been amended only twice so far.
  - (c) The Preamble is not a part of the Constitution, as held by the Supreme Court.
  - (d) The Preamble embodies the objective of economic justice but not of economic liberty.

24. In connection with the 73<sup>rd</sup> Amendment Act of 1992, consider the following statements :

1. The act provides for a three-tier system of Panchayati raj, however, a state having a population not exceeding 20 lakhs may not constitute panchayats at the intermediate level.
2. All members of panchayats, including the chairpersons of panchayats at the intermediate and district levels, shall be elected directly by the people.
3. A panchayat constituted upon the dissolution of a panchayat before the expiration of its duration shall continue for a full five-year term of office.

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

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

25. Consider the following statements regarding G20 :

1. The G20 was founded in 2008 after the global economic and financial crisis of 2007.
2. The G20 does not have a permanent secretariat or staff.
3. India has hosted the G20 summit twice.

Which of the above statements is/are correct ?

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



26. Match List-I with List-II and select the correct answer from the codes given below :

List-I	List-II
A. 102 <sup>nd</sup> Amendment Act, 2019	1. A maximum of 10% reservation for Economically Weaker Sections (EWS)
B. 103 <sup>rd</sup> Amendment Act, 2019	2. Restored the power of the State Governments to identify Other Backward Classes (OBCs) that are socially and educationally backward
C. 104 <sup>th</sup> Amendment Act, 2020	3. Constitutional status to National Commission for backward classes
D. 105 <sup>th</sup> Amendment Act, 2021	4. Extended the reservation of seats for Scheduled Castes and Scheduled Tribes in the Lok Sabha and State Assemblies for another 10 years up to 2030

Choose the correct code :

	A	B	C	D
(a)	3	1	2	4
(b)	3	1	4	2
(c)	1	3	4	2
(d)	1	3	2	4

27. Consider the following statements regarding the writ jurisdiction of the Courts :

**Statement I :** The writ jurisdiction of the Supreme Court is narrower than that of the High Court.

**Statement II :** The Supreme Court can issue writs only for the enforcement of the Fundamental Rights.

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.

28. Consider the following statements with reference to the constitutional/statutory provisions on the citizenship of India :

- Part II of the Indian Constitution deals with citizenship.
- The Constitution provides for only a single citizenship with exceptions to certain bordering states.
- The latest amendment to The Citizenship Act, 1955 has relaxed the qualifications for naturalisation for the persons belonging to the religious minorities of all the countries bordering India.

Which of the above statements is/are correct ?

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



29. Consider the following statements :

1. The constitution does not specify the strength of a High Court.
2. The constitution leaves it to the discretion of the respective state legislatures to specify the strength of a High Court.
3. The judges of a High Court are appointed by the President.

Which of the statements given above is/are *incorrect* ?

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

30. "The Naked Triangle" is an Autobiography of :

- (a) Balraj Sahni      (b) Balwant Gargi  
(c) Jaswant Singh Kanwal      (d) Kartar Singh Duggal

31. Match the following :

List-I	List-II
A. Sunehade	1. Bulleh Shah
B. Dil Tarang	2. Shiv Kumar Batalvi
C. Loona	3. Bhai Vir Singh
D. Kafian	4. Amrita Pritam

Choose the correct code :

- A    B    C    D  
 (a) 4    1    2    3  
 (b) 2    3    4    1  
 (c) 4    3    2    1  
 (d) 2    4    1    3

32. In which magazine did the Noble Peace Prize awardee Rabindranath Tagore write several stories and poems on the lives of Sikh Gurus ?

- (a) Gitanjali      (b) Jibansmriti      (c) Balak      (d) Sadhana

33. Consider the following statements :

1. U.N. Mukherji and Lal Chand founded Punjab Hindu Sabha in 1909.
2. Mangu Ram started the Ad-Dharm Movement in Punjab.
3. Pandita Ramabai started Arya Mahila Samaj in 1882 with the help of the leaders M.G. Ranade and R.G. Bhandarkar.

Which of the above statements are correct ?

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



34. Which committee was named Disorders Inquiry Committee ?  
 (a) Moti Lal Nehru Committee (b) Hunter Committee  
 (c) Muddiman Committee (d) Sargent Committee
35. The Sahitya Akademi Award, 2024 in Punjabi was given to Pal Kaur for which of the following book ?  
 (a) Mann Di Chip  
 (b) Bhukh Eon Sah Laindi Hai  
 (c) Morpankhi Khamb  
 (d) Sun Guvanta Sun Budhivanta : Itihaasnama Punjab
36. Who was the first President of All India Trade Union Congress ?  
 (a) N.M. Joshi (b) Ajit Singh  
 (c) Deewan Chaman Lal (d) Lala Lajpat Rai
37. Which of the following Sultanate/Mughal rulers were the contemporaries of Guru Nanak Dev ji ?  
 1. Ala-ud-Din Alam Shah 2. Ibrahim Lodi ✓ (1469-1539)  
 3. Sikandar Lodi ✓ 4. Bahlol Lodi ✓  
 5. Humayun ✓ 6. Babur ✓  
 7. Akbar ✗
- Choose the correct option :  
 (a) 1, 2, 3, 4 and 6 only (b) 2, 3, 4, 5 and 6 only  
 (c) 2, 4, 5 and 6 only (d) 3, 5, 6 and 7 only
38. Match List-I with List-II and choose the answer from the codes given below :
- | List-I                | List-II   |
|-----------------------|---|
| A. Sir Henry Lawrence | 1. British resident at Ludhiana before the First Anglo-Sikh War |
| B. Sir John Lawrence  | 2. British resident at after First Anglo-Sikh War               |
| C. Lord Hugh Gough    | 3. British Commander-in-Chief during the Second Anglo-Sikh War  |
| D. Major Broadfoot    | 4. The first Chief Commissioner of Punjab                       |
- Choose the correct code :
- |     | A | B | C | D |
|-----|---|---|---|---|
| (a) | 3 | 2 | 1 | 4 |
| (b) | 1 | 3 | 4 | 2 |
| (c) | 4 | 2 | 3 | 1 |
| (d) | 2 | 4 | 3 | 1 |



39. Consider the following statements on ancient history based on archaeological and literary sources :

1. It is quite likely that the Indus Valley people recognized the importance of cow for its milk/dairy products and horse for its agility in warfare.
2. The Vajapeya sacrifice was performed by the kings in the later Vedic period to bestow divinity on the king.

Which of the above statements is/are correct ?

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

40. Match the following texts with their authors :

Text	Author
A. Buddhacharita	1. Nagasena
B. Sutralankara	2. Ashvaghosha
C. Milinda Panho	3. Nagarjuna
D. Madhyamika Karika	4. Asanga

Choose the correct code :

- |      | A | B | C | D |
|------|---|---|---|---|
| (a)  | 2 | 3 | 1 | 4 |
| ✓(b) | 1 | 4 | 3 | 2 |
| ✗(c) | 4 | 1 | 3 | 2 |
| ✓(d) | 2 | 4 | 1 | 3 |

41. The decline of the Nanda dynasty at the hands of Chandragupta Maurya and Kautilya has been vividly portrayed in which of the following Sanskrit plays ?

- (a) Devichandraguptam (b) Malavikagnimitram  
(c) Mrichhakatika ~~(d) Mudrarakshasa~~

42. Which foreign traveller stated that Harshavardhana could *not* subdue Badami Chalukya's Pulakeshin II ?

- ✗(a) Fa-Hien ~~(b) Hiuen Tsang~~  
(c) Yijing (d) Al-Biruni



43. Consider the following statements in the context of medieval historians :

1. 'Raziya was endowed with all qualities befitting a king, but she was not born of the right sex...' was written by Ziauddin Barani.
2. "The king was freed from his people and they from their king" was written by Badauni to describe the death of Balban.

Which of the above statements is/are correct ?

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

44. Which edict was issued by Akbar to assert his spiritual authority over ulemas ?

- (a) Fatwa-i-Alamgiri (b) Sulh-i-Kul  
(c) Din-i-Ilahi Proclamation (d) Mahzar Nama

45. Consider the following statements about Chhatrapati Shivaji Maharaj :

1. He was coronated at Purandar Fort.
2. He introduced Sindhudurg naval base to safeguard Maratha coasts.
3. He employed Ganimi Kava strategy against the Mughals.

Which of the above statements is/are correct ?

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

46. Which of the following statements is true regarding the appointment of Indians to public offices under the British rule ?

- (a) The Charter Act of 1833 completely eliminated the restrictions on Indians holding high public office.  
(b) The system of open competitive examination for public office appointments was introduced in 1853 and reaffirmed in 1858.  
(c) The maximum age for admission to competitive examinations remained at twenty-three throughout the period.  
(d) Indians could only hold high public offices if they were appointed by the Secretary of State after 1858, with no competitive examination required.



47. Indigo cultivation in India declined by the beginning of the 20<sup>th</sup> century because of :
- ☒ (a) Peasant resistance to the oppressive conduct of planters
  - (b) Its unprofitability in the world market because of new inventions and discoveries
  - (c) National leaders' opposition to the cultivation of indigo
  - (d) Government control over the planters
48. What was the significant political move made by Wavell on the instructions by Churchill in June 1945 in anticipation of the British elections ?
- + (a) He announced complete independence for India.
  - ☒ (b) He permitted Indian leaders to draft a new constitution.
  - (c) He proposed talks for forming a new Executive Council with an Indian majority.
  - + (d) He dissolved the Congress Working Committee.
49. What was the primary purpose of the Babington-Smith Committee, appointed in 1919 ?
- (a) To investigate British excesses done under the Rowlatt Act
  - (b) To study the impact of the war on Indian exchange, currency system, and note issue practices
  - (c) To draft a new education policy
  - (d) To look into the causes of famine, formulate general principles and suggest measures of preventive and protective character
50. For the Assertion (A) and Reason (R) given below, choose the correct alternative from the following :
- Assertion (A) :** The Quit India Movement of 1942 was the final call for independence by the Indian National Congress during the British rule.
- Reason (R) :** The movement failed to gain support from the masses, and the British quickly suppressed it with arrests and force, leading to its immediate collapse.
- (a) Both A and R are correct and R is the correct explanation of A.
  - ☒ (b) Both A and R are correct, but R is not the correct explanation of A.
  - (c) A is correct, but R is incorrect.
  - (d) A is incorrect, but R is correct.



51. Match the following leaders with their journals :

- |                             |                     |
|-----------------------------|---------------------|
| A. Bipin Chandra Pal        | 1. Bande Mataram    |
| B. Aurobindo Ghosh          | 2. New India        |
| C. Satish Chandra Mukherjee | 3. Bharat Sramajibi |
| D. Sasipada Banerji         | 4. Dawn             |

Choose the correct code from the following :

- |       | A | B | C | D |
|-------|---|---|---|---|
| (a) 2 | 1 | 4 | 3 |   |
| (b) 2 | 1 | 3 | 4 |   |
| (c) 1 | 2 | 4 | 3 |   |
| (d) 4 | 3 | 2 | 1 |   |

52. Consider the following pairs :

- | Diseases      | Causative agent |
|---------------|-----------------|
| 1. Diphtheria | Bacteria        |
| 2. Measles    | Fungus          |
| 3. Cholera    | Virus           |
| 4. Kala-azar  | Protozoan       |

Which of the above pairs are correctly matched ?

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

53. Consider the following statements regarding soaps :

- A soap molecule has a hydrophobic head and a hydrophilic tail.
- Aqueous solution of soap above critical micelle concentration will show the Tyndall effect.

Which of the above statements is/are correct ?

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



- 54. For the Assertion (A) and Reason (R) given below, choose the correct alternative from the following :

**Assertion (A) :** Stainless steel is considered a highly corrosion-resistant material.

**Reason (R) :** It contains chromium, which reacts with oxygen in the air to form a protective oxide layer.

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

- ✓ 55. Consider the following statements about enzymes :

1. Enzymes increase the activation energy of a reaction.
2. Enzymes work at their optimum temperature and pH.
3. The activity of enzymes cannot be affected by other compounds.
4. Enzymes need to be used in excess compared to the reagent to catalyse the reaction.

How many of the above statements is/are correct ?

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

- 56. Consider the following statements :

**Statement I :** Cooking food takes more time in Shimla as compared to Delhi.

**Statement II :** As altitude increases and atmospheric pressure decreases, the boiling point of water decreases.

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) Both Statement I and Statement II are incorrect.



57. Two types of measuring devices — the beam balance and the spring balance — are commonly used in shops. If we take them to the Moon, which of the following will give the same reading for a given object as it does on the Earth ?

- (a) Only the beam balance  
(b) Only the spring balance  
(c) Both the balances  
(d) Neither of the two balances

57

58. Consider the following :

1. Torches
2. Vehicle headlights
3. Rear-view wing mirrors in vehicles
4. Shaving mirrors

In which of the above are concave mirrors used ?

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

- (b) 1 and 2 only  
(d) 3 and 4 only

58

59. Which of the following products are obtained by anaerobic respiration in plants ?

1. Lactic acid
2. Carbon dioxide
3. Water
4. Ethanol

Choose the correct option :

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

- (b) 2 and 4 only  
(d) 1 and 2 only

59

60. All the following vaccines are examples of attenuated or inactivated whole pathogen vaccines, except :

- (a) Rabies vaccine  
(c) Oral polio vaccine (OPV)

- (b) Tetanus vaccine  
(d) Hepatitis A vaccine



61. When a wave passes from one medium to another, which of the following change ?

1. Velocity
2. Amplitude
3. Frequency
4. Wavelength

Choose the correct option :

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

62. Consider the following types of solids :

1. Molecular solids
2. Ionic solids
3. Covalent network solids
4. Metallic solids

How many of the above types of solids exhibit electrical conductivity, malleability and ductility ?

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

63. Consider the following statements :

1. A URL is a web address and its full form is Universal Resource Locator.
2. A cookie stores information about the user's web activities such as login sessions, preferences and passwords.

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

64. Which one of the following statements is correct regarding lithium and alkaline batteries ?

- (a) Lithium and alkaline batteries are both generally rechargeable.
- (b) Alkaline batteries exhibit a gradual decrease in voltage output over time.
- (c) Lithium batteries have a lower energy density compared to alkaline batteries.
- (d) Lithium batteries do not maintain a consistent voltage output over time.



65. In the Indian context, consider the following statements regarding marriage :
- Under the Uniform Civil Code implemented in Uttarakhand, the minimum age of marriage for girls has been raised from 18 to 21 years.
  - The subject of marriage is included in the State List of the Seventh Schedule to the Constitution of 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

66. Consider the following statements regarding the Chandrayaan-4 Mission :

- The mission aims to demonstrate major technologies required not only for docking, undocking, and landing on the Moon, but also for safely returning to Earth and for collecting and analysing lunar samples.
- It is a crucial step towards establishing India's capabilities for a human mission to the Moon, targeted for the year 2045.
- The total fund requirement for the technology demonstration under the mission is approximately ₹ 10,000 crore.

How many of the statements given above is/are correct ?

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

67. Which of the following statements best describes the 'Dragon Drones' recently seen in news ?

- They are autonomous drones designed for precision cargo delivery.
- They are surveillance drones developed for monitoring nuclear facilities.
- They are combat drones capable of dispensing molten thermite, an incendiary mixture of aluminium and iron oxide, onto enemy targets.
- They are lightweight drones used for aerial cinematography, including filming of social ceremonies.

68. Consider the following statements :

- Kozhikode is the first city in India to be designated a 'City of Literature' by UNESCO under its Creative Cities Network.
- The UNESCO Creative Cities Network supports the Sustainable Development Goal 11.

Which of the above statements is/are *incorrect* ?

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



69. Consider the following statements :

1. Nafithromycin is India's first indigenously developed antibiotic aimed at tackling Antimicrobial Resistance (AMR).
2. It has been developed by Wockhardt with support from BIRAC and is marketed under the trade name "Miqnaf".
3. It is intended for the treatment of Community-Acquired Bacterial Pneumonia (CABP).

How many of the statements given above is/are correct ?

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

70. Consider the following languages :

1. Assamese
2. Pali
3. Gujarati
4. Marathi
5. Odia

How many of the above languages have been declared as 'Classical Languages' by the Government of India ?

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

71. Consider the following statements regarding the Union Budget Estimates for 2025-26 :

1. The fiscal deficit is estimated to be 4.9% of the GDP.
2. The total expenditure is estimated at ₹ 50.65 lakh crore.
3. An allocation of about ₹ 2 lakh crore has been made for the Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY).

Which of the statements given above are correct ?

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

72. Which of the following apps has been launched by the Reserve Bank of India (RBI) to enable retail investors to directly participate in the Government Securities (G-Sec) market ?

- (a) RBIDATA (b) RBI DigiSec  
(c) RBI MANI (d) RBI Retail Direct



73. Consider the following statements regarding the Hurun Global Unicorn Index, 2024 :
1. India ranked third in the global unicorn count.
  2. India's Zomato features among the top-20 most valuable unicorns in the world.
  3. Indian founders have created more offshore unicorns than any other country.

Which of the statements given above are correct ?

- (a) 1 and 2 only      (b) 1 and 3 only  
(c) 2 and 3 only      (d) 1, 2 and 3
74. For the Assertion (A) and Reason (R) given below, choose the correct alternative from the following :

**Assertion (A) :** The Ministry of Electronics and Information Technology recently launched BharatGen as a pioneering initiative in generative Artificial Intelligence (AI).

**Reason (R) :** By developing AI technologies within India, BharatGen aims not only to reduce reliance on foreign technologies but also to create efficient and inclusive AI solutions in various Indian languages.

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

75. Consider the following statements about 'Zorawar' :

1. It is an advanced 25-tonne light tank.
2. It is jointly developed by DRDO and Larsen & Toubro.
3. It is designed to operate in high-altitude regions such as Ladakh and the Northeast.
4. It can be transported by road, rail, ship and aircraft.

Which of the statements given above are correct ?

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

76. *Gambusia Affinis* and *Poecilia Reticulata*, recently seen in the news, are species of which of the following ?

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



77. Consider the following statements regarding the Similipal Tiger Reserve :

1. It was recently notified as Odisha's third national park, after Bhitarkanika and Satkosia.
2. It is a part of the UNESCO World Network of Biosphere Reserves.
3. It is the world's only known habitat of wild melanistic tigers.
4. It is the first reserve in India where the TrailGuard AI system has shown success as an anti-poaching tool.

Which of the statements given above are correct ?

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

78. Consider the following statements regarding chess titles and recent developments :

1. The winner of the World Chess Championship is accorded the title of Grandmaster.
2. Once awarded, the title of Grandmaster is generally held for life.
3. Gukesh Dommaraju became the youngest World Chess Champion by defeating Ding Liren of China in the 2024 FIDE World Chess Championship.

How many of the statements given above is/are correct ?

- |               |                       |
|---------------|-----------------------|
| (a) Only one  | (b) Only two          |
| (c) All three | (d) None of the above |

79. With reference to the concept of microfinance in India, consider the following statements :

1. Microfinance focuses exclusively on the provision of microcredit facilities to low-income groups, and excludes insurance and savings.
2. The thrust of the microfinance initiative is to channelize production and consumption credit in multiple doses based on the absorption capacity of the prospective borrower.
3. It has evolved from 'charity-based' to 'thrift-based' and finally to 'trust and creditworthiness model'.
4. India has adopted the concept of microfinance from Bangladesh.

How many of the statements given above is/are correct ?

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



- 80. With reference to the India's Five-Year Plans, how many of the following statements given below are correct ?
1. The Second Five-Year Plan focused on rapid industrialization through heavy and basic industries.
  2. The largest contributor to investment in independent India's early growth experience (i.e., during the first three Five-Year Plans) was 'Domestic Savings'.
  3. The main objectives of the Fourth Five-Year Plan were the removal of poverty and the attainment of self-reliance.
  4. The Eighth Five-Year Plan was implemented after the economic liberalisation in India.
  5. The Tenth Five-Year Plan marked a shift in the planning paradigm by stating in its preface that "The Plan is indicative in nature".

Select the correct answer using the options given below :

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

81. Several Finance Commissions have recommended the establishment of an independent Fiscal Council in India. In this context, which of the following are the potential benefits of setting up such a council ?

1. Assessing and monitoring fiscal policy
2. Effective implementation of fiscal rules and strengthening of fiscal performance
3. Better coordination between the centre and the states, and the consistency of the fiscal targets across levels of government
4. Enhanced accountability to the Legislatures and the public at large in calibrating fiscal policies

Select the correct answer using the options given below :

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

82. With reference to the Goods and Services Tax (GST) Council, consider the following statements :

1. The GST Council is a constitutional body constituted under Article 279A of the Indian Constitution.
2. It is chaired by the Prime Minister.
3. The Revenue Secretary acts as the ex-officio Secretary to the GST Council.
4. The recommendations of the GST Council are binding on the union and state governments.

Which of the statements given above are correct ?

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



83. Consider the following statements as per NITI Aayog's 'Multidimensional Poverty in India since 2005-06' report :

1. Multidimensional poverty in India declined significantly between 2013-14 and 2022-23, with more than 24 crore people escaping poverty during this period.
2. All 12 indicators of Multidimensional Poverty Index showed a remarkable improvement during this period.
3. Bihar registered the largest decline in the number of multidimensional poor followed by Odisha.

Which of the statements given above are correct ?

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

84. With reference to the National Food Security Act, 2013, which of the following statements is/are correct ?

1. The Central Government is responsible for the procurement of food grains, identification of beneficiaries and issuance of ration cards.
2. In Chandigarh, Puducherry and Madhya Pradesh, the Act is implemented in the cash transfer mode, under which food subsidy is transferred directly into the bank accounts of beneficiaries.
3. The eldest woman of the household, aged 18 years or above, is mandated to be the head of the household for the purpose of issuing ration cards under the Act.

Select the correct answer using the codes given below :

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

85. Consider the following statements regarding the eligibility criteria for recognition as a startup under the Startup India Initiative :

1. An entity shall be considered as a startup up to a period of 10 years from the date of its incorporation.
2. The entity's turnover should not have exceeded ₹ 1000 crores in any financial year since its incorporation.
3. An entity formed by splitting up or reconstruction of an existing business is eligible to be considered as a startup.

Which of the statements given above is/are correct ?

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



86. What is the primary objective of the Employment Linked Incentive (ELI) Scheme, introduced in the Union Budget 2024-25 ?
- Enhancing direct wage subsidies in rural entrepreneurship to promote employment
  - Increasing employability by facilitating skill development through financial support to industrial training institutes and apprenticeships
  - Providing incentives for employers hiring first-time formal sector workers and supporting their EPFO contributions
  - Extending concessional credit to MSMEs to boost employment in manufacturing sector

87. How many of the following measures are likely to lead to an increase in the money supply in India ?

- Expansion of credit operations by commercial banks
- Borrowing by the Government of India from the RBI
- Sale of government securities to the public by the RBI
- Increase in the repo rate by the RBI
- Increase in the Marginal Standing Facility (MSF) rate by the RBI

Select the correct answer from the options given below :

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

88. Which of the following best defines the concept of "Challenger Banks" ?

- Systemically important banks that are subject to enhanced regulatory scrutiny due to their size and interconnectedness
- Digitally-driven small banking institutions that aim to disrupt traditional banking models through technology and innovation
- Large sized Non-Banking Financial Companies which compete with traditional banks to provide financial services like loans, investments, etc.
- Traditional commercial banks that undergo restructuring to reduce non-performing assets and improve efficiency

89. Which of the following is *not* a government initiative related to school education ?

- |                |                   |
|----------------|-------------------|
| (a) PM-SHRI    | (b) Vidya Pravesh |
| (c) Vidya Guru | (d) Vidyanjali    |



90. Consider the following statements :
- Statement I :** According to Bergmann's Rule, birds and mammals in colder regions tend to be significantly larger in body size than their conspecifics inhabiting warmer regions.
- Statement II :** A smaller surface area-to-volume ratio enables them to lose less heat to their environment compared to smaller animals, which have a larger surface area-to-volume ratio.
- Which one of the following is correct in respect of the above statements ?
- Both Statement I and Statement II are correct and Statement II is the correct explanation for Statement I.
  - Both Statement I and Statement II are correct, but Statement II is not the correct explanation for Statement I.
  - Statement I is correct, but Statement II is incorrect.
  - Statement I is incorrect, but Statement II is correct.

91. Which of the following chemicals is used in cloud seeding to enhance rainfall ?

- Silver iodide
- Magnesium nitrate
- Potassium permanganate
- Diphenyl carbazide

92. Consider the following statements :

- The Nagoya Protocol was adopted in 2010 with the objective of ensuring access to genetic resources and the fair and equitable sharing of benefits arising from the use.
- After the ratification of the Nagoya Protocol, the National Biodiversity Authority (NBA) was established in India to fulfil the obligations of the Protocol.

Which of the statements given above is/are correct ?

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

93. Consider the following pairs of tiger reserves and the states where they are located :

- Satpura Tiger Reserve - Maharashtra
- Bandipur Tiger Reserve - Karnataka
- Bandhavgarh Tiger Reserve - Madhya Pradesh
- Sathyamangalam Tiger Reserve - Tamil Nadu

How many of the above pairs is/are correctly matched ?

- Only one pair
- Only two pairs
- Only three pairs
- All four pairs



94. Match the following layers of the atmosphere with their characteristics :

Layers	Characteristics
A. Stratosphere	1. Characterized by high temperatures as a result of absorption of high energy solar radiation by gases
B. Mesosphere	2. A region where photoionization primarily occurs
C. Thermosphere	3. Characterised by temperature increases with altitude, leading to a layer in which vertical mixing is limited
D. Ionosphere	4. Characterised by temperature decreases with altitude, leading to the coldest place within the Earth system

Choose the correct code :

	A	B	C	D
(a)	1	2	3	4
(b)	3	4	1	2
(c)	1	4	3	2
(d)	3	1	4	2

95. Consider the following greenhouses gases :

1. Methane ( $\text{CH}_4$ )
2. Nitric oxide ( $\text{NO}$ )
3. Perfluorocarbons (PFCs)
4. Carbon dioxide ( $\text{CO}_2$ )
5. Hydrochlorofluorocarbons (HCFCs)
6. Sulphur hexafluoride ( $\text{SF}_6$ )

Which of these are covered under the Kyoto Protocol ?

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

96. Match the following biosphere reserves with the key fauna found there :

Biosphere Reserve	Fauna
A. Nilgiris	1. Golden Gecko
B. Nanda Devi	2. Golden Langoor
C. Manas	3. Musk Deer
D. Seshachalam Hills	4. Lion-tailed Macaque

Choose the correct code :

	A	B	C	D
(a)	2	3	4	1
(b)	1	2	3	4
(c)	4	3	2	1
(d)	4	1	2	3



97. Which of the following states is the leading producer of diamonds in India ?  
(a) Madhya Pradesh (b) Chhattisgarh (c) Gujarat (d) Karnataka

98. Consider the following statements about microplastics :  
1. They are small pieces of plastic less than 5 mm in length.  
2. They consist of carbon and hydrogen atoms bound together in polymer chains.  
3. They can adsorb persistent organic pollutants (POPs), potentially increasing the toxicity of the particles.  
4. They can be inhaled from the air and absorbed through the skin.

How many of the above statements is/are correct ?

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

99. Consider the following statements about carbon credits :  
1. It is a generic term used for any tradable certificate or permit representing the right to emit a certain amount of carbon dioxide or other greenhouse gases.  
2. One carbon credit represents the reduction or removal of one metric ton of carbon dioxide or an equivalent amount of another greenhouse gas.  
3. The Clean Development Mechanism (CDM) under the Kyoto Protocol allows developed countries to earn carbon credits by investing in emission-reduction projects in other developed as well as developing countries.  
4. There are dedicated markets for trading in carbon credits such as the EU Emissions Trading System (EU ETS).

Which of the above statements are correct ?

(a) 1, 2, and 3 only (b) 1, 2, and 4 only  
(c) 2, 3, and 4 only (d) All of the above

100. Given below are two statements :

**Statement I :** Biological communities increase in diversity as they proceed through seral stages to a climax.

**Statement II :** In most of the landscapes we see around us, successions are often arrested naturally or by human activities.

In the light of the above statements, choose the most appropriate answer from the options given below :

(a) Both Statement I and Statement II are correct.  
(b) Both Statement I and Statement II are incorrect.  
(c) Statement I is correct, but Statement II is incorrect.  
(d) Statement I is incorrect, but Statement II is correct.