

**DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO**

**T.B.C. : BBSP-O-GST**

**Test Booklet Series**

**Serial No.**

1010806

**TEST BOOKLET**

**PAPER—I**

**B**

**( General Studies )**

**Time Allowed : Two Hours**

**Maximum Marks : 100**

**INSTRUCTIONS**

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET *DOES NOT* HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS, ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. Please note that it is the candidate's responsibility to encode and fill in the Roll Number and Test Booklet Series A, B, C or D carefully and without any omission or discrepancy at the appropriate places in the OMR Answer Sheet. Any omission/discrepancy will render the Answer Sheet liable for rejection.
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 **120** items (questions). Each item comprises four responses (answers). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose *ONLY ONE* response for each item.
5. You have to mark all your responses *ONLY* on the separate Answer Sheet provided. See directions in the Answer Sheet.
6. *All* items carry equal marks.
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 Sheet as per instructions sent to you with your Admission Certificate.
8. After you have completed filling in all your responses on the Answer Sheet and the examination has concluded, you should hand over to the Invigilator *only the Answer Sheet*. You are permitted to take away with you the Test Booklet.
9. Sheets for rough work are appended in the Test Booklet at the end.
10. **Penalty for wrong answers :**  
THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS.
  - (i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, **one-third** of the marks assigned to that question will be deducted as penalty.
  - (ii) If a candidate gives more than one answer, it will be treated as a **wrong answer** even if one of the given answers happens to be correct and there will be same penalty as above to that question.
  - (iii) If a question is left blank, i.e., no answer is given by the candidate, there will be **no penalty** for that question.

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1. The voting age in India was changed from 21 years to 18 years under which one of the following Constitutional Amendment Acts?

- (a) The 43rd Amendment Act, 1977
- (b) The 48th Amendment Act, 1984
- (c) The 61st Amendment Act, 1989
- (d) The 69th Amendment Act, 1991

2. The Preamble of the Constitution serves which of the following purposes?

- I. Source of power for the Legislature
- II. States the objectives which the Constitution seeks to establish and promote
- III. Lays out provisions for economic liberty
- IV. States the source from which the Constitution derives its authority

Select the correct answer using the code given below.

- (a) I and III
- (b) II and IV only
- (c) I, II and IV
- (d) II, III and IV

3. Which of the following statements regarding the Constitution of India are correct?

- I. No part of the Constitution can be changed by an ordinary legislation unless so authorized.
- II. All parts of the Constitution can be amended including the basic features.
- III. The Fundamental Rights can be amended under Article 368.

Select the answer using the code given below.

- (a) I and III only
- (b) I and II only
- (c) II and III only
- (d) I, II and III

4. Local Self-Government, in both rural and urban areas, falls under which of the following?

- (a) The Union List
- (b) The Concurrent List
- (c) The State List
- (d) Both the Union List and the State List, in which the Centre has the final say

5. The number of Judges in the Supreme Court can be increased by

- (a) a constitutional amendment
- (b) the President of India
- (c) an Act of the Parliament
- (d) the decision taken by the Chief Justice of India in consultation with other Judges

6. Which one of the following is the first State to universalize the pre-primary education formally?

- (a) Kerala
- (b) West Bengal
- (c) Punjab
- (d) Karnataka

7. Who among the following holds his/her office at the pleasure of the President?

- (a) The Chairman of a Public Service Commission
- (b) The Attorney General of India
- (c) The Speaker of the Lok Sabha
- (d) The Comptroller and Auditor General of India

8. Consider the following States :

- I. Andhra Pradesh
- II. Maharashtra
- III. Karnataka
- IV. Telangana

How many of the above States have Bicameral Legislature?

- (a) One
- (b) Two
- (c) Three
- (d) All four

9. Which of the following statements with regard to Proclamation of Emergency are correct?

- I. It cannot be in operation unless approved by the resolution of both the Houses of the Parliament within one month.
- II. Proclamation is immune from judicial review.
- III. Proclamation of Emergency may be made by the President of India at any time if the security of the country is threatened.
- IV. The President of India can issue a Proclamation of Revocation any time if the Lok Sabha passes a resolution.

Select the answer using the code given below.

- (a) I and III only
- (b) II, III and IV
- (c) I, III and IV
- (d) I and IV only

10. What is the full form of SIR introduced by the Election Commission of India?

- (a) Special Inclusive Review
- (b) Selective Intensive Revision
- (c) Special Intensive Revision
- (d) Specific Internal Review

11. Which of the following statements is/are correct about the advisory jurisdiction of the Supreme Court of India?

- I. Article 143 of the Constitution of India lays down that the Supreme Court may be required to express its opinion.
- II. The Supreme Court's advisory opinion is binding on the President under Article 143 of the Constitution of India.

Select the answer using the code given below.

- (a) I only
- (b) II only
- (c) Both I and II
- (d) Neither I nor II

12. The Anti-Drunk Movement was initiated in which one of the following States of India?

- (a) Karnataka
- (b) Kerala
- (c) Andhra Pradesh
- (d) Uttar Pradesh

13. Consider the following pairs :

Provisions	Borrowed from
I. Centrifugal form of federalism	: Canada
II. Impeachment of the President	: USA
III. Concept of the Concurrent List	: USSR
IV. The Fundamental Duties	: Australia

How many of the pairs given above are correctly matched?

- (a) One
- (b) Two
- (c) Three
- (d) All four

14. Which of the following statements is/are correct regarding Right to Property under the Constitution of India?

- I. Right to Property was part of the Fundamental Rights.
- II. Right to Property is made a constitutional right under Article 300A.

Select the answer using the code given below.

- (a) I only
- (b) II only
- (c) Both I and II
- (d) Neither I nor II

15. Which of the following Articles **cannot** be suspended during the Proclamation of National Emergency?

- (a) Articles 20 and 21
- (b) Articles 30 and 32
- (c) Articles 14 and 15
- (d) Articles 18 and 19

16. With reference to tropical thorn forests in India, which of the following statements is/are correct?

- I. They are found in regions with less than 50 cm of annual rainfall.
- II. They are found in parts of Jharkhand.
- III. Khejri and Khair are important plant species of these forests.

Select the answer using the code given below.

- (a) I only
- (b) I and II
- (c) II and III
- (d) I and III

17. With reference to 'water vapour in the atmosphere', which of the following statements is/are correct?

- I. It contributes to the stability and instability in the air.
- II. It acts like a blanket, allowing the Earth neither to become too cold nor too hot.

Select the answer using the code given below.

- (a) I only
- (b) II only
- (c) Both I and II
- (d) Neither I nor II

18. With reference to 'conditions favourable for tropical cyclones', which of the following is/are correct?

- I. Small variations in the vertical wind speed
- II. Upper divergence above the sea level system

Select the answer using the code given below.

- (a) I only
- (b) II only
- (c) Both I and II
- (d) Neither I nor II

19. The Tropic of Cancer passes through how many States of India?

- (a) Four
- (b) Five
- (c) Six
- (d) Eight

20. The Earth in its initial phases of formation was a hot object with a thin layer of atmosphere comprising

- (a) oxygen and nitrogen
- (b) hydrogen and helium
- (c) carbon dioxide and nitrogen
- (d) argon and methane

21. Which one of the following refers to 'the Big Splat'?

- (a) Formation of the Moon
- (b) Formation of the Earth
- (c) Formation of the Sun
- (d) Formation of the Universe

22. The International Date Line is made zigzag to avoid which one of the following island groups?

- (a) Aleutian Islands
- (b) Bonin Islands
- (c) Solomon Islands
- (d) Cook Islands

23. Consider the following statements regarding earthquake :

- I. Tectonic earthquakes originate due to sliding of rocks along a fault plane.
- II. Volcanic earthquake is a special class of tectonic earthquake.
- III. The intensity of an earthquake is measured by the Richter scale.

Which of the statements given above are correct?

- (a) I and III only
- (b) I and II only
- (c) II and III only
- (d) I, II and III

24. Consider the following statements regarding metamorphic rocks :

- I. They undergo recrystallization and reorganization of the original minerals.
- II. Foliation and banding are associated with these rocks.
- III. Gneissoid and syenite are examples of these rocks.

Which of the statements given above are correct?

- (a) I and II only
- (b) II and III only
- (c) I and III only
- (d) I, II and III

25. Consider the following statements :

Statement-I :

Weathering results in mechanical disintegration and chemical decomposition of rocks.

Statement-II :

Weathering is controlled by geologic and geomorphic processes but is independent of climatic factors.

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 explains Statement-I
- (b) Both Statement-I and Statement-II are correct but Statement-II does not explain Statement-I
- (c) Statement-I is correct but Statement-II is not correct
- (d) Statement-I is not correct but Statement-II is correct

26. Consider the following statements regarding terrestrial radiation :

- I. Insolation received by the Earth is in shortwaves.
- II. The Earth's energy heats the atmosphere from below.
- III. The shortwave radiation from the Earth is absorbed by the greenhouse gases.

Which of the statements given above are correct?

- (a) I and II only
- (b) II and III only
- (c) I and III only
- (d) I, II and III

27. Consider the following statements regarding South-West monsoons in India :

- I. The monsoons enter into West Bengal from a South-Westerly direction.
- II. The retreating South-West monsoons bring rain to the Eastern part of Peninsular India.
- III. The Tamil Nadu coast remains dry during the South-West monsoons.

Which of the statements given above are correct?

- (a) I and II only
- (b) I and III only
- (c) II and III only
- (d) I, II and III

28. According to the Ramsar Convention, which one of the following lakes is protected as waterfowl habitat?

- (a) Chilika Lake
- (b) Pulicat Lake
- (c) Vembanad Lake
- (d) Kolleru Lake

29. Which one of the following government schemes in India promotes organic farming?

- (a) Paramparagat Krishi Vikas Yojana
- (b) PM Kisan Yojana
- (c) PM Krishi Sinchai Yojana
- (d) Krishi Bhagya Yojana

30. Consider the following statements regarding salinity of oceans :

- I. The North Sea records low salinity because of its location in higher latitudes.
- II. The Baltic Sea records low salinity due to influx of river waters.
- III. The Mediterranean Sea records higher salinity due to evaporation.
- IV. The Black Sea has high salinity due to lack of river water influx.

Which of the statements given above are correct?

- (a) I and II
- (b) II and III
- (c) III and IV
- (d) I and IV

31. Consider the following pairs :

- I. U-WIN : Digitizing vaccination records for pregnant women and children up to 14 years
- II. E-Sanjeevani : World's largest tele-medicine implementation in primary health care
- III. Ayushman Bharat Digital Mission : Provides for compulsory participation of private hospitals in the scheme

How many of the pairs given above are correctly matched?

- (a) One
- (b) Two
- (c) All three
- (d) None

32. Which of the following is/are considered to be part/parts of broad money measure but not part/parts of narrow money measure?

- I. Currency with the public
- II. Demand deposits with banks
- III. Time deposits with banks

Select the correct answer using the code given below.

- (a) II only
- (b) III only
- (c) II and III only
- (d) I, II and III

33. A bank generated savings credit of ₹1,600 crore in the first round from a savings deposit of ₹2,000 crore. What is the Cash Reserve Ratio fixed by the Central Bank?

- (a) 5%
- (b) 10%
- (c) 20%
- (d) 25%

34. In the context of economy, the term 'capital goods' refers to

- (a) any asset
- (b) any durable good that is owned for consumption of households
- (c) any asset that helps increase the income of households
- (d) durable assets which are used to produce goods and services

35. With reference to distribution of employment in India for the year 2024-2025, consider the following statements :

- I. Self-employment is a major source of employment for men in rural areas.
- II. Casual wage work is a major source of employment for women.
- III. Proportion of women engaged in self-employment in rural areas is more than that in urban areas.

Which of the statements given above is/are correct?

- (a) I only
- (b) I and III only
- (c) II and III only
- (d) I, II and III

36. Consider the following statements about the SANKALP Scheme :

- I. It is a programme of the Ministry of Skill Development and Entrepreneurship with loan assistance from the World Bank.
- II. Quality assurance of skill development programmes is one of the result areas of this scheme.
- III. Inclusion of the marginalized population is not an objective of this scheme.

Which of the statements given above is/are correct?

- (a) I only
- (b) I and II
- (c) II only
- (d) I and III

37. According to the World Bank Poverty and Equity Brief (October 2025), 46% of India's poor lived in which of the following States?

- (a) Bihar, Uttar Pradesh, Madhya Pradesh
- (b) Uttar Pradesh, Maharashtra, Madhya Pradesh
- (c) Bihar, Madhya Pradesh, Maharashtra
- (d) Uttar Pradesh, Bihar, Maharashtra

38. Consider the following statements regarding the Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM) :

- I. It aims to reduce poverty by enabling poor households to access gainful self-employment and skilled wage employment opportunities.
- II. It assures that at least two members from each rural poor household would be brought under the Self-Help Groups (SHGs) network.
- III. The programme leverages community resources to build institutions and promote livelihoods.

Which of the statements given above is/are correct?

- (a) I only
- (b) I and II
- (c) II and III
- (d) I and III

39. With reference to the Human Development Report (2023-2024), consider the following countries :

- I. Sri Lanka
- II. Myanmar
- III. Nepal

How many of the above countries are performing better in terms of human development than India?

- (a) One
- (b) Two
- (c) All three
- (d) None

40. Consider the following statements about the Monthly Per Capita Expenditure (MPCE) in India :

Statement-I :

It is often criticised for being an incomplete criterion for measuring poverty.

Statement-II :

It does not differentiate between the very poor and the other poor (transient poor).

Statement-III :

It takes expenditure on food and a few select items as proxy for income.

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

- (a) Both Statement-II and Statement-III are correct and both of them explain Statement-I
- (b) Both Statement-II and Statement-III are correct but only one of them explains Statement-I
- (c) Only one of Statement-II and Statement-III is correct and that explains Statement-I
- (d) Neither Statement-II nor Statement-III is correct

41. Under the leadership of which Sanskritist/Epigraphist was the project of preparing the first critical edition of the epic *Mahabharata* started in 1919?

(a) Bhau Daji

(b) V. S. Sukthankar

(c) Rajendralal Mitra

(d) R. G. Bhandarkar

42. Which one of the following texts provides a detailed and connected account of Buddha's life?

(a) *Lalitavistara*

(b) *Baudhayana Dharmasutra*

(c) *Mahavagga*

(d) *Therigatha*

43. A 150 CE inscription of Shaka ruler Rudradaman and a 5th century inscription, at the same place, of the time of Gupta king Skandagupta refer to which one of the following?

- (a) King Ashoka's visit to the birth-place of Buddha
- (b) Construction of an ancient theatre
- (c) Construction of Rajsamand Lake
- (d) Construction and reconstruction of Sudarshana Lake

44. Consider the following statements about Ashoka's Dhamma :

- I. The theme of Ahimsa is an important aspect of Ashoka's Dhamma.
- II. The ceremony of Dhamma is in proper courtesy to slaves and servants.
- III. Dhamma consisted of the promotion of Buddhism.

Which of the statements given above are correct?

- (a) I and III only
- (b) II and III only
- (c) I and II only
- (d) I, II and III

45. Consider the following statements about town planning in the Lower Town of Mohenjo-daro :

- I. The length of the bricks was about twice the height.
- II. High platforms were built on which houses were constructed.
- III. The houses were uniformly rectangular in plan.

Which of the statements given above are correct?

- (a) I, II and III
- (b) I and III only
- (c) I and II only
- (d) II and III only

46. The Bahamani kingdom and Vijayanagara empire clashed frequently over the territory of

- (a) Madurai
- (b) Warangal
- (c) Malabar
- (d) Raichur Doab

47. Which of the following are the salient features of the Government of India Act, 1935?

- I. Provincial Autonomy
- II. Dyarchy at the Centre
- III. Abolition of the India Council

Select the correct answer using the code given below.

- (a) I and II only
- (b) II and III only
- (c) I and III only
- (d) I, II and III

48. With reference to 8th August, 1942 in the Indian history, which one of the following statements is correct?

- (a) The Congress Ministries resigned in seven provinces.
- (b) The Viceroy's Executive Council was expanded to include more Indians.
- (c) The Quit India Resolution was passed by the Congress.
- (d) Cripps proposed an Indian Union with full Dominion Status once the Second World War was over.

49. When did the Dandi March begin and when did it end?

- (a) 26th January, 1930 and 6th April, 1930
- (b) 12th March, 1930 and 6th April, 1930
- (c) 26th January, 1930 and 12th April, 1930
- (d) 12th March, 1930 and 12th April, 1930

50. Consider the following pairs :

<i>Traveller</i>	<i>Century/Centuries</i>
I. Marco Polo	: Tenth and eleventh centuries
II. Al-Biruni	: Thirteenth century
III. Duarte Barbosa	: Sixteenth century

How many of the pairs given above are correctly matched?

- (a) None
- (b) One
- (c) Two
- (d) All three

51. Which of the following white blood cells (WBCs) are found in the highest number in human blood?

- (a) Basophils
- (b) Lymphocytes
- (c) Monocytes
- (d) Neutrophils

52. Which of the following statements about the process of respiration is/are correct?

- I. During inspiration, the diaphragm gets relaxed.
- II. During expiration, external intercostal muscles contract.
- III. A healthy human adult breathes 12-16 times per minute at rest.

Select the answer using the code given below.

- (a) I only
- (b) I and II
- (c) II and III
- (d) III only

53. Which part of the circulatory system is affected in coronary artery disease?

- (a) Arteries supplying blood to lungs
- (b) Arteries supplying blood to kidneys
- (c) Arteries supplying blood to heart muscles
- (d) Arteries supplying blood to brain

54. Consider the following statements :

- I. Blood of 'A' group has anti-B antibodies in plasma.
- II. Blood of 'AB' group has both 'A' and 'B' antigens in RBCs.
- III. Blood of 'AB' group cannot be given to a person having 'A' blood group.
- IV. Blood of 'O' group does not possess any antibody in plasma.

Which of the statements given above are correct?

- (a) II, III and IV
- (b) I, II and IV
- (c) I, III and IV
- (d) I, II and III

55. Which one of the following is **not** the function of endoplasmic reticulum?

- (a) Formation of cell membrane
- (b) Packaging of proteins and lipids
- (c) Synthesis of lipids
- (d) Synthesis of proteins

56. Which one of the following structures is **not** found in case of asexual reproduction?

- (a) Conidium
- (b) Gamete
- (c) Gemmule
- (d) Zoospore

57. Which one of the following structures is **not** a part of vegetative propagation?

- (a) Rhizome
- (b) Bulb
- (c) Tuber
- (d) Archegonium

58. Which of the following cells in the human digestive system is responsible for secretion of hydrochloric acid in the stomach?

- (a) Parietal cell
- (b) Peptic cell
- (c) Goblet cell
- (d) Mucous neck cell

59. Which one of the following is **not** a part of the fallopian tube of the female reproductive system of humans?

- (a) Ampulla
- (b) Endometrium
- (c) Infundibulum
- (d) Isthmus

60. Which of the following statements is/are correct for gynoecium of a flower?

- I. In syncarpous conditions, more than one pistil fuse together.
- II. The stigma serves as a landing platform for pollen grains.
- III. Pistils are fused with stamens in all flowers.

Select the answer using the code given below.

- (a) I and II only
- (b) I only
- (c) II and III only
- (d) I, II and III

61. What is the molarity of NaOH in the solution prepared by dissolving its 4 g in 250 mL of solution? (The atomic mass of sodium is 23)

(a) 0.04 M

(b) 0.4 M

(c) 4 M

(d) 40 M

62. A solution is prepared by adding 4 g of a substance to 36 g of water. What is the mass percent of the solute?

(a) 14.4%

(b) 10%

(c) 9%

(d) 1%

63. A tablespoon holds 0.5 mole of water. What is the number of molecules present in it?

(a)  $6.02 \times 10^{23}$

(b)  $3.01 \times 10^{23}$

(c) 9

(d) 36

64. Which one of the following characteristics is possessed by enantiomers?

(a) They have different melting points.

(b) They have different solubilities.

(c) They have different optical rotations.

(d) They have different refractive indices.

65. Consider the following statements :

The polar nature of water makes it

I. a very good solvent for ionic compounds

II. to act as an amphoteric substance

III. to form hydrates of different types

Which of the statements given above are correct?

(a) I and II only

(b) II and III only

(c) I and III only

(d) I, II and III

66. The conversion of naphthalene into naphthalene vapours is called

(a) distillation

(b) sublimation

(c) crystallization

(d) decomposition

67. Which of the following methods can be used for removing permanent hardness of water?

- I. Treatment with washing soda
- II. By ion exchange method
- III. By addition of lime

Select the correct answer using the code given below.

- (a) I and II
- (b) II only
- (c) I and III
- (d) I only

68. Which of the following are characteristics of aromatic compounds?

- I. They should be planar.
- II. They should follow  $(4n + 2)$   $\pi$ -electrons rule.
- III. They should be cyclic.

Select the correct answer using the code given below.

- (a) I and II only
- (b) II and III only
- (c) I and III only
- (d) I, II and III

69. The adsorbent used in chromatographic techniques is

- (a) mica
- (b) silica gel
- (c) clay
- (d) glass wool

70. Consider the following compounds :

- I. Anthracene
- II. Benzene
- III. Cyclobutane
- IV. Toluene

How many of the above are aromatic compounds?

- (a) One
- (b) Two
- (c) Three
- (d) All four

71. Which one of the following components is added to optical glass to cut off UV rays?

- (a) Copper oxide
- (b) Cerium oxide
- (c) Manganese oxide
- (d) Cobalt oxide

72. Consider the following statements in respect of noble gases :

- I. They are  $p$ -block elements.
- II. They are highly active.
- III. They have completely filled electronic configurations.

Which of the statements given above is/are correct?

- (a) III only
- (b) I and III only
- (c) I only
- (d) I, II and III

**73.** Consider the following statements regarding oxidation :

- I. There is loss of hydrogen.
- II. There is gain of oxygen.
- III. There is gain of electrons.
- IV. Oxidation state increases.

Which of the statements given above are correct?

- (a) I, II and III
- (b) I, III and IV
- (c) I, II and IV
- (d) II, III and IV

**74.** The manufacturing of Vanaspati Ghee from polyunsaturated vegetable oils involves which one of the following processes?

- (a) Refining of oil
- (b) Oxidation of oil
- (c) Hydrogenation of oil
- (d) Reduction of oil

**75.** The cleaning action of soap is characterized by which of the following?

- I. Emulsification
- II. Micelle formation around the oil droplet
- III. Interaction of hydrophilic part of soap with oil
- IV. Interaction of hydrophobic part of soap with water

Select the correct answer using the code given below.

- (a) II, III and IV only
- (b) I and II only
- (c) I, III and IV only
- (d) I, II, III and IV

**76.** A23a refers to

- (a) an iceberg
- (b) an island
- (c) a ship
- (d) a ropeway

**77.** Consider the following statements :

- I. Bahubali is the name of ISRO's Launch Vehicle.
- II. GSAT-7R is the heaviest communication satellite ever launched from India.
- III. CMS-03 is a multiband communication satellite of ISRO.

Which of the statements given above are correct?

- (a) I and II only
- (b) II and III only
- (c) I and III only
- (d) I, II and III

**78.** The 22nd India-ASEAN Summit was held in October 2025 in

- (a) Vientiane
- (b) Kuala Lumpur
- (c) Singapore
- (d) Bangkok

79. Consider the following pairs :

<i>Leader</i>	<i>Country</i>
I. Sanae Takaichi	: Japan
II. Catherine Connolly	: Ireland
III. Rodrigo Paz Pereira	: Cameroon
IV. Paul Biya	: Bolivia

How many of the pairs given above are correctly matched?

- (a) One
- (b) Two
- (c) Three
- (d) All four

80. Consider the following countries :

- I. Ethiopia
- II. Nigeria
- III. Egypt
- IV. UAE

How many of the above are full-time members of BRICS?

- (a) One
- (b) Two
- (c) Three
- (d) All four

81. Philadelphi Corridor is located between

- (a) Syria and Lebanon
- (b) Syria and Turkey
- (c) Gaza and Egypt
- (d) Jordan and Israel

82. Which one of the following countries is the newest member of NATO?

- (a) Finland
- (b) Sweden
- (c) North Macedonia
- (d) Montenegro

**83.** India's installed solar capacity in 2025 is close to

- (a) 70 GW
- (b) 90 GW
- (c) 130 GW
- (d) 200 GW

**84.** Dholera and Sanand in Gujarat are in news for setting up

- (a) solar panels
- (b) semiconductor units
- (c) electrical vehicles
- (d) wind turbines

**85.** The Directorate General of Foreign Trade (DGFT) is an attached office of which Ministry of the Government of India?

- (a) The Ministry of Commerce and Industry
- (b) The Ministry of Finance
- (c) The Ministry of External Affairs
- (d) The Ministry of Corporate Affairs

**86.** The United Nations Framework Convention on Climate Change (UNFCCC) was first signed during

- (a) the Stockholm Conference on the Human Environment, 1972
- (b) the Montreal Protocol, 1987
- (c) the Rio Earth Summit, 1992
- (d) the Kyoto Protocol, 1997

**87.** Low temperature and low precipitation produce which type of biome or forests?

- (a) Tropical forests
- (b) Thorn scrubs
- (c) Savanna
- (d) Tundra

**88.** A transition zone between two different ecological communities is known as

- (a) ecocline
- (b) ecozone
- (c) ecotone
- (d) ecotype

**89.** Two species that possess the same ecological niche cannot coexist indefinitely. This is known as the

- I. competitive exclusion principle
- II. Gause's principle of competitive exclusion
- III. principle of character displacement
- IV. principle of self-assembly

Which of the above is/are correct?

- (a) I and II
- (b) II and III
- (c) III and IV
- (d) I only

90. The conversion of nitrogen to ammonium by bacteria and cyanobacteria is called

- (a) nitrification
- (b) denitrification
- (c) ammonification
- (d) None of the above

91. Consider the following statements :

Statement-I :

The leaves of deciduous forest trees produce brilliant colours in autumn.

Statement-II :

In autumn season, leaves of deciduous forest trees stop producing green chlorophyll pigments.

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 explains Statement-I
- (b) Both Statement-I and Statement-II are correct but Statement-II does not explain Statement-I
- (c) Statement-I is correct but Statement-II is not correct
- (d) Statement-I is not correct but Statement-II is correct

92. The measure of area of biologically productive land or sea required to produce food, material and energy for human population is known as

- (a) Living Planet Index
- (b) ecological footprint
- (c) carbon footprint
- (d) carrying capacity

93. In natural ecosystems, some of the output or output information may be fed back as input to control the functioning. Such system when occurs is called

- (a) an isolated system
- (b) a cybernetic system
- (c) a linear system
- (d) a successional system

94. Consider the following statements as regards to the protection of ozone layers :

- I. The Vienna Convention aims to protect the ozone layer.
- II. The Montreal Protocol is recognized as the most successful international environmental treaty.

Which of the statements given above is/are correct?

- (a) I only
- (b) II only
- (c) Both I and II
- (d) Neither I nor II

95. The fundamental niche of a species refers to

- (a) the actual range of conditions and resources the species occupies in the presence of competitors
- (b) the physical location within an ecosystem where the species lives
- (c) the unique role and position of the species in its ecosystem including all the biotic interactions
- (d) the full potential range of physical and biological conditions and resources the species could theoretically occupy

96. Biodiversity elements with actual or potential use should not be lost simply because we presently do not know their value. Which of the following statements best reflects/reflect the reason/reasons for the above statement?

- I. They may have values unused at present but once discovered could enhance the well-being of mankind.
- II. They may become useful in future due to changing circumstances.

Select the correct answer using the code given below.

- (a) I only
- (b) II only
- (c) Both I and II
- (d) Neither I nor II

97. Consider the following statements in respect of biodiversity hot spot :

- I. It is an area unusually rich in biodiversity.
- II. The flora and fauna are under a constant threat of overexploitation.

Which of the statements given above is/are correct?

- (a) I only
- (b) II only
- (c) Both I and II
- (d) Neither I nor II

98. Consider the following statements :

- I. Keystone species is an organism that has a disproportionately large effect on its environment relative to its abundance.
- II. Sentinel species gives us an early warning of problems that could potentially affect other species.

Which of the statements given above is/are correct?

- (a) I only
- (b) II only
- (c) Both I and II
- (d) Neither I nor II

99. Consider the following statements :

Statement-I :

Trophic relationship within ecological communities tends to be complex and web-like.

Statement-II :

Many consumers feed on more than one species and are fed upon by more than one species.

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 explains Statement-I
- (b) Both Statement-I and Statement-II are correct but Statement-II does not explain Statement-I
- (c) Statement-I is correct but Statement-II is not correct
- (d) Statement-I is not correct but Statement-II is correct

100. Consider the following :

- I. Methane digester
- II. Biodiesel
- III. Natural compost

How many of the above are examples of clean technologies?

- (a) One
- (b) Two
- (c) All three
- (d) None

101. For satellite communication, why are microwave links at 10–12 GHz preferred?

- (a) Microwaves at such frequencies cannot penetrate clouds
- (b) Ionosphere reflects these waves strongly
- (c) This band lies in low attenuation atmospheric window
- (d) Microwaves at such frequencies do not require any antenna

102. A rigid body is placed on a horizontal table. When slightly disturbed, its centre of gravity moves horizontally without any rise or fall in its position. Which one of the following correctly describes the state of the body?

- (a) The body is in stable equilibrium.
- (b) The body is in unstable equilibrium.
- (c) The body is in neutral equilibrium.
- (d) The body's state cannot be determined.

103. A sphere weighs 0.98 N on the Earth. It is brought on the Moon and is divided into 10 equal parts there. Which one among the following is the mass of each part on the Moon in SI unit? (The acceleration due to gravity on the surface of the Moon is one-sixth that of on the Earth)

- (a) 0.01
- (b) 0.1
- (c) 0.16
- (d) 0.016

**104.** The diameter of a sphere and the side of a cube are of equal length. Which one of the following is the correct ratio of their mass if both of them are made of the same material?

(a)  $\pi/6$

(b)  $4\pi/3$

(c)  $\pi$

(d)  $\pi/3$

**105.** A compass needle made of paramagnetic alloy is used at a location where the angle of dip is  $\pi/3$ . When the alloy is slightly cooled below the room temperature, the needle's vertical deflection increases, even though the Earth's magnetic field remains unchanged. Which one of the following best explains this observation?

(a) Cooling increases the needle's moment of inertia making it more sensitive to vertical torque.

(b) Paramagnetic susceptibility increases as temperature decreases.

(c) The dip angle of the Earth's magnetic field increases when temperature drops.

(d) Cooling decreases thermal agitation, converting the material effectively into a ferromagnet.

**106.** Consider the following magnetic materials at room temperature :

1. Gadolinium oxide
2. Bismuth
3. Ruthenium
4. Graphite
5. Aluminium
6. Nickel

Which of the following statements is/are correct in respect of the above magnetic materials?

- I. There are two diamagnetic materials.
- II. There are three paramagnetic materials.

Select the answer using the code given below.

(a) I only

(b) II only

(c) Both I and II

(d) Neither I nor II

**107.** A mercury barometer is placed in an elevator accelerating upwards with a constant acceleration (assume constant temperature and no air leaks). If  $h$  is the height of mercury column in the stationary elevator and  $H$  is the height of mercury column in the moving elevator, then which one of the following is correct?

(a)  $H > h$

(b)  $H = h$

(c)  $H < h$

(d) Nothing can be concluded due to insufficient data

108. A block of wood floats in water with  $\frac{3}{4}$ th of its volume submerged. The same block floats in another fluid with  $\frac{2}{3}$ rd of its volume submerged. What is the specific gravity of the fluid?

(a)  $\frac{3}{4}$

(b)  $\frac{4}{3}$

(c)  $\frac{9}{8}$

(d)  $\frac{8}{9}$

109. Typically a Geiger-Müller tube is used to detect

(a) energetic  $\alpha$  particles and  $\beta$  particles only

(b)  $\beta$  particles and  $\gamma$  rays only

(c) energetic  $\alpha$  particles and  $\gamma$  rays only

(d) energetic  $\alpha$  particles,  $\beta$  particles and  $\gamma$  rays

110. In which of the following cases, the centre of mass of a metallic rod is definitely **not** at its centre?

I. The density of the metallic rod continuously decreases from left to right.

II. The density of the metallic rod continually increases from left to right.

III. The density of the metallic rod decreases from left to right up to the centre and then increases.

IV. The density of the metallic rod increases from left to right up to the centre and then decreases.

Select the correct answer using the code given below.

(a) I and III only

(b) I and II only

(c) III and IV only

(d) I, II, III and IV

111. For the Newton's laws to hold true at the Earth's equator, if  $c$  is the value of correction to the gravitational acceleration ( $g$ ) that should be subtracted from  $g$ , then which one of the following is correct?

- (a)  $c = 0$
- (b)  $0.01 < c < 0.02$
- (c)  $0.02 < c < 0.03$
- (d)  $c > 0.03$

112. Which one of the following materials is strongly paramagnetic due to the presence of unpaired  $f$ -electrons and is widely used in MRI contrast agents?

- (a) Lead
- (b) Gadolinium
- (c) Bismuth
- (d) Platinum

113. In which one of the following regions of electromagnetic spectrum, LASER is most difficult to achieve?

- (a) Microwave
- (b) Infrared
- (c) Visible
- (d) Ultraviolet

114. Which one among the following is the primary reason of microwave heating of water?

- (a) Microwaves ionize water molecules.
- (b) Water dipoles undergo rotational resonance at microwave frequencies.
- (c) Microwaves produce standing waves in solids and liquids.
- (d) Heating occurs due to induced currents only.

115. If the electric conductivity of the Earth's outer core is slightly decreased, then which one of the following is the most immediate effect?

- (a) Stronger geomagnetic field
- (b) Weaker geomagnetic field
- (c) Reversal of magnetic field
- (d) Disappearance of declination

116. Which of the following constants are necessarily included in defining the seven fundamental base units?

(a)  $c, G, h$

(b)  $e, c, \alpha$

(c)  $e, c, h$

(d)  $N_A, k, G$

117. The temperature about which a hot solid object emits infrared radiation alone is

(a) up to  $100^\circ\text{C}$

(b) up to  $500^\circ\text{C}$

(c) up to  $1500^\circ\text{C}$

(d) above  $1500^\circ\text{C}$

118. A spacecraft is placed at a Lagrange point in our solar system where it is far away from the Sun. Which of the following this point could be?

(a) L1 only

(b) L2 only

(c) Either L1 or L2

(d) Either L4 or L5

119. Which of the following fields could bring a deflection in an electron beam?

(a) Electric field only

(b) Magnetic field only

(c) Either electric field or magnetic field or both

(d) Neither electric field nor magnetic field

120. Why is sunscreen lotion used while moving out during daytime in summer?

(a) To reduce the exposure to all harmful radiations present in sunlight

(b) To reduce the exposure to harmful infrared radiations present in sunlight

(c) To reduce the exposure to harmful ultraviolet radiations present in sunlight

(d) To reflect the visible radiations by the body surface to glow

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