



INSTRUCTION TO THE CANDIDATE

Time: 1 Hr.

Max. Marks: 60

1. This online examination has three Sections. Containing 30 multiple choice question:

(i) Section A	Biology	12 Questions
(ii) Section B	Chemistry	12 Questions
(iii) Section C	General Studies	06 Questions

Candidates are required to attempt all the questions.

2. All question carry equal marks.

3. For each correct answer **2 marks** will be awarded.

4. There is **no negative marking** for any wrong answer.

BIOLOGY

1. **True replication of DNA is due to**

- a) Phosphate backbone
- b) Complementary base pairing rule
- c) Hydrogen bonding
- d) None

2. **Where are the parotid glands located?**

- a) Below the stomach
- b) Below and in front of the ear canal
- c) Behind and above the pancreas
- d) Underneath the armpits

3. **Night blindness and xerophthalmia are generally conditions associated with the deficiency of which vitamin?**

- a) Vitamin B
- b) Vitamin B2
- c) Vitamin K
- d) Vitamin A

4. _____ is an example of an ex-situ conservation.

- a) Sacred groves
- b) Seed bank
- Wildlife sanctuary
- National park

5. **Viruses that attack bacteria are called _____.**

- a) Virophage
- b) Bacteriophage
- c) Lysophage
- d) None of the above

6. **The primary function of the cerebrospinal fluid is to:**

- a) Protect the brain
- b) Remove waste products
- c) Provide nutrients to the surrounding tissues
- d) All of the above

7. **Which bacterium is used in the production of insulin by genetic engineering?**

- a) *Saccharomyces*
- b) *Escherichia*
- c) *Rhizobium*
- d) *Mycobacterium*

8. Protein synthesis occurs in

- a) Lysosomes
- b) Ribosomes
- c) Golgi body
- d) Nucleus

9. What is the enzyme that breaks down lactose?

- a) Lipase enzymes
- b) Amylase
- c) Pepsin
- d) Lactase

10. The term phylum was coined by

- a) Linnaeus
- b) Haeckel
- c) Cuvier
- d) Theophrastus

11. The function of Copper-T is

- a) Stop gastrulation
- b) Check mutation
- c) Stop cleavage
- d) Stop fertilization

12. The age of the tree can be determined by

- a) Measuring its diameter
- b) Counting the number of leaves
- c) Counting the number of annual rings
- d) Finding out the number of branches

CHEMISTRY

13. The reduction is a gain of

- | | |
|--------------|------------|
| a) Electrons | c) protons |
| b) Neutrons | d) oxygen |

14. Hydrogen bomb is based on the principle of :-

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|--------------------------|-----------------------------|
| a) Nuclear Fission | c) Nuclear Fusion |
| b) Natural Radioactivity | d) Artificial Radioactivity |

15. Good conductors have many loosely bound

- | | |
|--------------|--------------|
| a) Atoms | c) protons |
| b) Molecules | d) electrons |

16. Silver Mirror test is given by which one of the following compounds :-

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|-----------------|-------------------|
| a) Benzophenone | c) Methyl alcohol |
| b) Formaldehyde | d) Ethyl alcohol |

17. Cis-trans isomerism in alkenes is due to

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|--|--|
| a) chiral carbon | c) free rotation about single bond |
| b) free rotation about the double bond | d) restricted rotation about the double bond |

18. Which of the following is a non metal that remains liquid at room temperature :-

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|-------------|---------------|
| a) Chlorine | c) Phosphorus |
| b) Bromine | d) Helium |

19. The equivalent weight of an acid can be calculated by

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|---------------------------------------|------------------------------|
| a) Molecular weight \times basicity | c) Molecular weight/basicity |
| b) Molecular weight \times acidity | d) Molecular weight/acidity |

20. Which one of the following halide can be used in the Friedel-Crafts reaction?

- a) Isopropyl chloride
- b) Chlorobenzene
- c) Bromobenzene
- d) Chloroethene

21. Plaster of Paris (POP) is

- a) $\text{CaSO}_4 \cdot \text{H}_2\text{O}$
- b) CaSO_4
- c) $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$
- d) $\text{CaSO}_4 \cdot \frac{1}{2}\text{H}_2\text{O}$

22. when the rate of the reaction is equal to the rate constant, the order of the reaction is

- a) zero order
- b) second order
- c) first order
- d) third order

23. Neutron was discovered by _____

- a) J.J Thomson
- b) Rutherford
- c) Chadwick
- d) Priestley

24. Isotopes of an element have _____

- a) Different chemical and physical properties
- b) Similar chemical and physical properties
- c) Similar chemical but different physical properties
- d) Similar physical but different chemical properties

General Studies

25. When earth overshoot day was in 2022?

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|--------------|------------|
| a) 10 August | c) 23 July |
| b) 28 July | d) 21 July |

26. Who is current Union health Minister of India?

- | | |
|------------------|----------------------------|
| a) Harsh vardhan | c) Mansukh L. Mandaviya |
| b) Jay Shankar | d) Dr. Bharti pravin Pawar |

27. Who is chief justice of India?

- | | |
|------------------------|------------------|
| a) U U Lalit | c) N. V. Ramana |
| b) Sharad Arvind Bobde | d) None of these |

28. International Yoga Day is celebrated on

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|------------|------------|
| a) 22 June | c) 23 June |
| b) 21 June | d) 20 June |

29. Which is largest state in terms of area in India?

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|-------------------|------------------|
| a) Madhya Pradesh | c) Uttar Pradesh |
| b) Rajasthan | d) Maharastra |

30. Where is the headquarters of international court of justice located

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|--------------|-----------|
| a) New Delhi | c) London |
| b) The Hague | d) Paris |

Rough Work