

Time allowed: **3 hours**; Maximum marks: **90**

General Instructions:

- a) All Questions are compulsory
- b) The Question Paper consists of 42 Questions divided in to four sections A, B, C and D
- c) Section- A comprises of 15 questions of one mark each
- d) Section- B comprises of 11 questions of two mark each
- e) Section- C comprises of 11 questions of three mark each
- f) Section- D comprises of 5 questions of Four mark each

Section – A

1. A plant which traps and feeds on insects
 - a. Rose
 - b. Cuscuta
 - c. Chinrose
 - d. Pitcher Plant

2. Which part of plant takes in carbon dioxide from the air for photosynthesis?
 - a. Sepals
 - b. Stomata
 - c. Root hair
 - d. Leaf Veins

3. Finger-like projections called villi are present in the
 - a. Liver
 - b. Stomach
 - c. Large intestine
 - d. Small intestine

4. Odd one out
 - a. Silk
 - b. Wool
 - c. Nylon
 - d. Cotton

5. In solids, heat gets transferred through the process of:
 - a. Radiation
 - b. Convection
 - c. Conduction
 - d. Evaporation

6. Which of the following bases is used as a cleansing agent?
 - a. Sodium Hydroxide
 - b. Calcium Hydroxide
 - c. Magnesium Hydroxide
 - d. Ammonium Hydroxide

7. Which option best describes a tropical region?
 - a. Hot and dry
 - b. Hot and humid
 - c. Cold and humid
 - d. Moderate temperature with heavy rainfall

8. When a vehicle, like a train, moves very fast a/an.....is created temporarily behind it.
 - a. Eye
 - b. Cyclone
 - c. Low pressure
 - d. High pressure

9. Priti takes 20 minutes to travel to her school with a speed of 3 m/s. How far is the school?
 - a. 2.0 km
 - b. 3.2 km
 - c. 3.6 km
 - d. 4.1 km

10. Which of the following is a universal solvent?
 - a. Oil
 - b. Water
 - c. Petrol
 - d. Alcohol

11. Which type of relationship is seen in algae and fungi in lichens?
 - a. Parasitic
 - b. Symbiotic
 - c. Saprophytic
 - d. Predator – Prey

12. Which microorganism is responsible for the fatal blood disease called Sorter's Disease?
 - a. Virus, Anthrax
 - b. Algae, Anthrax
 - c. Animal, Anthrax
 - d. Bacteria, Anthrax

13. Which of the following instrument is used to measure air pressure?
- Barometer
 - Manometer
 - Hydrometer
 - Anemometer
14. Which of the following substances helps in reducing the irritation caused by the sting of an ant?
- Vinegar
 - Lemon juice
 - Orange juice
 - Calamine (zinc carbonate)
15. The vacuum present in a vacuum flask reduces heat transfer by which of the following?
- Radiation
 - Convection
 - Conduction
 - Conduction and Convection

Section – B

16. Differentiate between saprophytic and symbiotic plants.
17. What are ruminants? Give example.
18. Differentiate between ingestion and egestion.
19. What is mohair wool?
20. List two health hazards in sericulture.
21. Express the given temperature in Celsius Scale: 85°F.
22. Define uniform motion.
23. Is the distilled water acidic/basic/neutral? How would you verify it?
24. Explain the factors responsible for the depletion of water table.
25. How do elephant living in the tropical rainforest adapt?
26. Explain why holes are made in hanging banners and hoardings.

Section – C

27. Why is transport of materials necessary in a plant or in an animal?
28. Draw the distance time graph for following data. Mention whether motion is uniform or non-uniform.

Time (in sec)	2	4	6	8	10	12	14	16	18	20
Distance travelled (in meters)	4	7	8	12	15	17	20	22	25	29

29. What is an antacid? How does an antacid work?
30. How does heat and temperature differ from each other?
- 31.
- Define sericulture.
 - What is a cocoon?
 - Explain the process of obtaining silk thread from the cocoon.
32. Differentiate between acids and bases.
33. List any three ways by which we can conserve water.
34. The states of rest and motion are relative terms. Explain with the help of an example.
35. What is a lightning conductor? How does it help?
36. What is camouflage? Explain with example.
37. Why are houses made of mud and bricks in rural areas?

Section - D

38. With help of diagram explain life cycle of moth.
39. With help of diagram explain digestive system of human beings.
- 40.
- What is a simple pendulum? Define the time period of a simple pendulum.
 - State whether the following statement is true or false: The time period of a given pendulum is not constant.
 - In an experiment to measure the time period of a simple pendulum, the time for 20 complete oscillations was found to be 36 sec. What is the time period of this pendulum?
- 41.
- What is the role played by the stomata in plants?
 - Mention some of the special features of desert plants.
- 42.
- An iron ball at 40°C is dropped in a mug containing water at 40°C . What will be the passage of flow of heat in the system? Explain.
 - How does heat flow in a body having one end cool and the other at high temperature?