

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. Amarbel is an example of:
  - a. Autotroph
  - b. Parasite
  - c. Saprotroph
  - d. Host
2. Water from the undigested food is absorbed mainly in the
  - a. Stomach
  - b. Small intestine
  - c. Food pipe
  - d. Large intestine
3. Silk is prepared from silkworms at which stage of its life cycle?
  - a. Egg
  - b. Larva
  - c. Pupa
  - d. Adult butterfly
4. One liter of water at 30°C is mixed with one liter of water at 50°C. The temperature of the mixture will be:
  - a. 20°C
  - b. 80°C
  - c. Between 30°C and 50°C
  - d. More than 50°C but less than 80°C
5. The range of a clinical thermometer is:
  - a. 35°C to 42°C
  - b. 0°C to 100°C
  - c. 30°C to 40°C
  - d. 0°C to 200°C

6. A liquid which is a good conductor of heat is:
  - a. Oil
  - b. Water
  - c. Mercury
  - d. Hydrogen
  
7. In acids, methyorange turns:
  - a. Red
  - b. White
  - c. Green
  - d. Yellow
  
8. Antacids contain
  - a. Weak acid
  - b. Weak base
  - c. Strong acid
  - d. Strong base
  
9. 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
  
10. An instrument used to measure humidity is:
  - a. Barometer
  - b. Calorimeter
  - c. Hygrometer
  - d. Thermometer
  
11. Which of the following plays an important role in the early warning systems?
  - a. Moon
  - b. Satellites
  - c. Helicopters
  - d. Submarines
  
12. Which one of the following place is unlikely to be affected by a cyclone?
  - a. Hyderabad
  - b. Chennai
  - c. Amritsar
  - d. Bengaluru

13. Pitambarnath takes 20 minutes to travel to his school with a speed of 3 m/s. How far is the school?
- 2.0 km
  - 3.2 km
  - 3.6 km
  - 4.1 km
14. The only source of clean water in cities today is:
- Seas
  - Ponds
  - Rivers
  - Ground water
15. Which one the following is not responsible for water shortage?
- Heavy rainfall
  - Increasing population
  - Rapid growth of industries
  - Mismanagement of water resources

## Section – B

16. What is host parasite relationship?
17. What is not digested by humans and why?
18. Differentiate between ingestion and egestion.
19. Name two animal fibers.
20. Write a note on food habits of sheep.
21. Express the given temperature in Celsius Scale: 100°F.
22. Define non-uniform motion.
23. Why is factory waste neutralized before being disposed into the water bodies?
24. Explain why holes are made in hanging banners and hoardings.
25. How is camel adapted to live in the desert?
26. Explain the factors responsible for the depletion of water table.

## Section – C

27. How are water and minerals transported to the plant?
28. Draw the distance time graph for following data. Mention whether motion is uniform or non-uniform.

Time (in sec)	1	2	3	4	5	6	7	8	9	10
Distance travelled (in meters)	2	4	6	8	10	12	14	16	18	20

29. Why are houses made of mud and bricks in rural areas?
30. What is meant by the following terms? (i) Rearing (ii) Shearing (iii) Sericulture
31. What are indicators and how are they used?
32. The states of rest and motion are relative terms. Explain with the help of an example.
33. What is camouflage? Explain with example.
34. Why does a balloon taken near a candle burst?
35. Distinguish between climate and weather.
36. Why is it advised to wear many layers of clothing in winter?
37. Misuse of water has led to its acute shortage. Give reasons to support this statement.

### Section - D

38. With help of diagram explain the process of photosynthesis.
- 39.
- What is the role played by the stomata in plants?
  - Mention some of the special features of desert plants.
40. With help of diagram explain feeding system in amoeba.
- 41.
- What is a simple pendulum? On what factors does the time period of a simple pendulum depend?
  - 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?
- 42.
- An iron ball at  $40^{\circ}\text{C}$  is dropped in a mug containing water at  $40^{\circ}\text{C}$ . What will be the passage of flow of heat in the system? Explain.
  - In hot places, it is advised to paint the outer walls of house with which color and why?