

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. _____ is used in the production of alcohol.
 - a. Lactobacillus
 - b. Amoeba
 - c. Yeast
 - d. Aspergillus
2. Which of the following is more reactive than Iron?
 - a. Copper
 - b. Tin
 - c. Silver
 - d. Zinc
3. Which of these organelles are found exclusively in a plant cell:
 - a. Centriole
 - b. Vacuole
 - c. Chloroplast
 - d. Mitochondria
4. Which of the following is ductile?
 - a. Sodium
 - b. Graphite
 - c. Potassium
 - d. Zinc
5. We know a woman has attained reproductive age, when:
 - a. her breasts start to develop
 - b. she starts menstruating
 - c. she grows taller
 - d. her voice changes

6. The strongest type of friction is:
- static
 - rolling
 - fluid
 - kinetic
7. What makes rayon different from other synthetic fibers?
- It is costly.
 - It is obtained from wood pulp
 - It is silky to touch
 - It can be woven like natural fibers.
8. Which of the following gases can contribute to the greenhouse effect?
- Oxygen
 - Hydrogen
 - Nitrogen
 - Methane
9. All the following plastic objects can be recycled, except _____.
- polythene bags
 - plastic toys
 - cooker handles
 - plastic insulation
10. Rhizobium are bacteria that help in
- formation of curd
 - rising of bread
 - fixing atmospheric nitrogen
 - decomposing dead animal and plant matter
11. What causes electricity to pass through an electrolyte solution?
- cations
 - electrons
 - anions
 - cations and anions
12. Which of the following statements is true about prokaryotes?
- Most prokaryotes are multicellular.
 - Prokaryotes have a clearly defined and membrane bound nucleus.
 - Fungi are types of prokaryotes.
 - Prokaryotes lack a nucleolus

13. The north pole of a magnet _____ the south pole of another magnet.
- attracts
 - repels
 - sometimes attracts and sometimes repels
 - does not do anything to
14. Which one from the list below is NOT a sex hormone
- Progesterone
 - estrogen
 - testosterone
 - adrenaline
15. Which statement is true from the following
- All metals are ductile
 - All non-metals are ductile
 - Generally metals are ductile
 - Generally non-metals are ductile

Section – B

16. Supposing your table is tilted a little. A plate kept on it starts sliding down. Show the direction of frictional force acting on it.
17. Why are textured tiles better in for bathroom floors?
18. Is it possible to see microorganisms with our naked eye? If not, how do we see them? If so, name the microbes you can see.
19. Why is aluminum foils used to wrap food?
20. What is the Adam's apple?
21. Where chromosomes located and what are its functions?
22. Mention the important uses of microorganisms in agriculture and medicine.
23. Why are chloroplasts found only in plant cells?
24. Mention two examples where force causes a change in shape.
25. Why can't copper replace zinc from its salt solution?
- 26.
- Why are cooking utensil handles made of thermosetting plastics?
 - What is acid rain?

Section – C

27. What are antibiotics? Why should we be careful while consuming antibiotics?
28. What are some of the changes produced by the action of testosterone and estrogen?
29. When an electric current flows through a conducting solution, what are the changes we observe?
30. Draw and label the human neuron. Also mention its functions.
31. What are some of the methods of food preservation?
32. What are some of the harmful effects of microbes?
33. Why don't we feel air?
34. What are the various factors that affect friction?
35. What are synthetic fibers?
36. Name a few differences between eukaryotes and prokaryotes.
37. Why do objects moving in air and water have different shapes than objects moving on land?

Section - D

38. Write a short note on sex determination.
39. What are vaccines and how do they work?
40. Write about the four types of friction.
41. What is the measure to prevent corrosion of metals?
42. What can one do to prevent air pollution that is in their control?