GENERAL INSTRUCTIONS:

1. All questions are compulsory.
2. There is no overall choice. However, internal choice has been provided in all the questions of five marks category only.
3. Q.No. I, II, III, IV carries each 01 Mark.
4. Q.No. V carries each 02 Marks.
5. Q.No. VI carries each 03 Marks.
6. Q.No. VII carries each 05 Marks.

I. Fill in the blanks given below

1. The stage of an embryo when all the body parts can be identified is called____________

2. ______________________is defined as the force acting on the unit area of the surface.

3. Time taken by an object to complete one oscillation is called__________________.

4. The process of depositing a layer of any desired metal on another material by means of electricity is called__________________.

5. Increase in the temperature due to increase in the carbon dioxide gas in the air leads to ____

II. Answer the following in one word or one sentence:

6. In which female reproductive organ does the embryo get embedded?

7. Name the male hormone responsible for secondary sexual characters.

8. Why do kabaddi players rub their hands with soil?

9. What is the audible range of frequencies for a normal human ear?

10. Name the natural satellite of the Earth.
III. Mark the following statements as true (T) or false (F):

11. Fertilisation is necessary even in asexual reproduction. (       )
12. Liquids exert pressure on the walls of the container. (       )
13. The passage of an electric current through a conducting liquid causes chemical reactions. (       )
14. Uranus is the farthest planet in the solar system (       )
15. Sulphur dioxide and Nitrogen dioxide gases are responsible for acid rain. (       )

IV. Choose the correct answer from the given options:

16. Which of the following is essential for the production of thyroxine that changes a tadpole to a frog?
   (a) Sodium  (b) Iodine  (c) Nitrogen  (d) Oxygen (       )
17. Force of friction acts on the moving body in –
   (a) The same direction  (b) the opposite direction (       )
   (c) Perpendicular direction  (d) none of the above
18. In which of the following materials speed of sound is maximum? (       )
   (a) Iron  (b) Sea water  (c) Fresh water  (d) Air
19. Which of the following cannot be charged easily by friction? (       )
   (a) A plastic scale  (b) An inflated balloon  (c) A copper rod  (d) A woollen cloth
20. The splitting of white light into its seven constituent colours is called (       )
   (a) Dispersion  (b) Reflection  (c) Refraction  (d) Rectilinear propagation

V. Answer the following:

21. Adrenalin is the hormone secreted by an endocrine gland. Name the gland and write about the function of adrenalin.
22. Give two examples each of situations in which you push or pull to change the state of motion of objects.
23. What is an electrostatic force? Why is it called a non-contact force?
24. Iqbal has to push a lighter box and Seema has to push a similar heavier box on the same floor. Who will have to apply a larger force and why?
25. Give reasons for the following:
   i) Powder is sprinkled on the carrom board.
   ii) Sportsmen use shoes with spikes.
26. Give two differences between Asteroids and Comets.
VI. Answer the following:  

27. Define fertilisation. Differentiate between internal and external fertilisation.

28. Write short notes on the following:
   i) Adam’s apple
   ii) Secondary sexual characters
   iii) Menopause

29. A pendulum oscillates 40 times in 4 seconds. Find its time period and frequency.

30. i) Draw and label a simple circuit showing electroplating.
   ii) List any two objects around you that are electroplated.

31. Draw sketches to show the relative positions of prominent stars in
   i) Ursa Major
   ii) Orion.

32. Water is one of our most precious commodities and no life can survive without it. It has been predicted that water scarcity will become the subject of ‘Wars’ in the near future. Write any two ways in which water is getting polluted? Write any two measures to stop water pollution at your level?

VII. Write detailed answers of the following:  

33. i) What is earthing?
   ii) Explain how lighting conductors protect tall structures from damage due to lightning?
   iii) Suggest any two measures to protect ourselves from lightning.

   (OR)

   i) List any four changes in the body that take place at puberty.
   ii) What is balanced diet? Why is it more necessary for adolescents?
   iii) Why are chips, colas and junk food not good for health?

34. i) Draw a labelled sketch of the human eye.
   ii) ‘Vision’ is one of the wonderful gifts given to us by God. But most of the people never take care of their eyes. Care for eyes should be taken. Suggest two methods for proper eye care?

   (OR)

   i) List any two sources of noise pollution in your surroundings.
   ii) Explain in what way noise pollution is harmful to human.
   iii) Write any two measures to limit noise pollution.

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