

Std X
Time – 2 hours

Science & Technology

16th November, 2024
Marks - [60]

Section A

State whether the following statements are true or false:

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1. The dinosaurs belongs to class Reptila
2. Adrenaline hormone is responsible for regulating the blood sugar level.
3. The cerebellum helps in maintaining posture and balance of the body.

Answer the following question in a word or two:

4. What are called decomposers?
5. Explain the term 'Meiosis'.
6. Which organ of human body stores 'bile'?
7. Mention the full form of CFC
8. What are the components of peripheral nervous system?

Fill in the blanks by selecting the correct alternative from those given in the bracket.

9. animal can change its sex.
10. The vegetative propagation by leaf is found in
11. plant shows movement in response of touch.
12. hormone is responsible for faster heartbeats.
13. controls reflex action.

Choose the correct option from those given below each question.

14. Which of the following brings oxygenated blood into left atrium in heart?
A. Superior vena cava B. Inferior vena cava
C. Pulmonary artery D. Pulmonary vein
15. How many pair of chromosomes are found in human?
A. 32 pairs B. 46 pairs C. 26 pairs D. 23 pairs
16. Who was the first scientist to perform series of experiments to study acquired and inherited traits?
A. Sutton B. Mendel C. Wattson D. Khorana

17. Match the Following Pairs correctly

Section 'A'	Section 'B'
1. Fission 2. Fragmentation 3. Regeneration 4. Spore-formation	a. Spirogyra b. Paramecium c. Mucor d. Planeria

- A. (1-b), (2-a), (3-d), (4-c)
B. (1-c), (2-d), (3-a), (4-b)

- C. (1-b), (2-c), (3-d), (4-a)
D. (1-d), (2-c), (3-b), (4-a)

Section B

Answer the following questions briefly:

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18. How are fats digested in our bodies? Where does this process take place?
19. How does binary fission differ from multiple fission?
20. What is Ozone and how does it affect any ecosystem?
21. Explain: (a) Reduce and (b) Recycle aspects to save environment.
22. Write a short note : Food chain.

Section C

Answer the following questions in short:

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23. Represent the table to show the name of any three endocrine glands of human, name of hormone secreted from it and its functions.
24. What are the qualities of an ideal source of energy?
25. How is the sex of child determined in human beings? Explain: How equal genetic contribution of male and female parents is ensured in progeny.
26. How are the areas of study – evolution and classification – interlinked?
27. Describe human brain with functions of its different parts.
28. What are three basic points of difference between asexual production and sexual production?

Section D

Answer the following questions in detail:

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29. Describe the experiment, with diagram, showing that carbon dioxide gas is necessary for photosynthesis.
OR
What are life processes? Explain some important processes which are needed for living beings.
30. Draw a labelled diagram of internal structure of human heart and explain the blood circulation in human heart.
31. Explain human excretory system with diagram.
OR
Explain human respiratory system with diagram.