

HS/XI/Sc/Bio-Bot/18**2018****BIO BOTANY
(Theory)***Full Marks : 35**Time : 1½ hours**The figures in the margin indicate full marks for the questions**General Instructions :*

- (i) Write all the answers in the Answer Script.
- (ii) Attempt all parts of a question together at one place.
- (iii) All questions are compulsory.
- (iv) This question paper consists of 4 (four) Groups — A, B, C and D.

GROUP 'A' – Consists of **6** (six) Questions (Nos. **1 – 6**) of 1 (one) mark each; very short answer to be answered in 1 word or 1 sentence each.

GROUP 'B' – Consists of **4** (four) Questions (Nos. **7 – 10**) of 2 (two) marks each; with one alternative from the same unit; short answer, to be answered in 20 – 30 words each.

GROUP 'C' – Consists of **3** (three) Questions (Nos. **11 – 13**) of 3 (three) marks each; with one alternative, to be answered in 30 - 40 words each.

GROUP 'D' – Consists of **3** (three) Questions (Nos. **14 – 16**) of 4 (four) marks each; with one alternative, long answer type, to be answered in 60 – 70 words each.

GROUP — A

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| 1. | Who proposed the five kingdom classification of organisms? | 1 |
| 2. | Define Binomial Nomenclature. | 1 |
| 3. | Give an example of complex permanent tissue. | 1 |
| 4. | Why lysosomes are also referred to as “suicidal bags of the cell”? | 1 |
| 5. | Where does the light reaction of photosynthesis take place? | 1 |
| 6. | What is Plasmolysis? | 1 |

(3)

GROUP — B

7. Give two salient features of Bryophytes. 2
Or
Give two salient features of Gymnosperms. 2
8. Distinguish between Gram positive and Gram negative bacteria. 2
9. What are plastids? Name the types of plastids. 1 + 1 = 2
10. What are micro and macronutrients. 1 + 1 = 2

GROUP — C

11. With the help of diagrams, explain the Phyllotaxy of leaves. 1 + 2 = 3
Or
Explain the various modifications of tap root with suitable diagrams. 2 + 1 = 3
12. Define meiosis. Mention the significance of meiosis. 1 + 2 = 3
13. Briefly describe the phases of growth in plants, with the help of growth curve. 1 + 2 = 3

(4)

GROUP — D

14. What is inflorescence? Explain the types of Cymose inflorescence with diagrams. 1 + 3 = 4
Or
What is simple permanent tissue? Describe the different types of simple permanent tissues with diagrams. 1 + 3 = 4
15. Define photosynthesis. Briefly explain dark reactions of photosynthesis 1 + 3 = 4
16. What is transpiration? How do guard cells control the opening and closing of stomata? 1 + 3 = 4

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