

2022

BOTANY — HONOURS

Paper : CC-6

Full Marks : 50

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer the following questions :

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| (a) Give an example of a gamopetalous irregular flower. | 1 |
| (b) Distinguish between syngenesious and synandrous stamens. | 2 |
| (c) Mention the difference between axile and free central placentation with diagrams. | 1+1 |
| (d) What is syconus? | 1 |
| (e) What is tapetum? | 1 |
| (f) Why is double fertilization so called? | 2 |
| (g) What is cleavage polyembryony? | 1 |

2. Answer *any two* from the following :

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| (a) What is an actinomorphic flower? Draw and describe different types of polypetalous forms of corolla. | 1+4 |
| (b) With suitable illustrations describe different types of aestivation in angiosperms. | 5 |
| (c) Mention the difference between campanulate and infundibuliform forms of corolla. Give one example of each of these corolla forms. What are composite fruits? | 2+2+1 |
| (d) Discuss in brief the 'ABC Model' of flowering. What is florigen? | 4+1 |

3. Answer *any three* from the following :

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| (a) What do you mean by special cymose inflorescence? With suitable illustrations distinguish among hypanthodium, cyathium and verticillaster inflorescence types. | 1+(3+6) |
| (b) Draw and describe different types of fleshy indehiscent fruits with suitable examples. | 3+7 |
| (c) What is megasporogenesis? Describe different types of megagametogenesis with suitable illustrations and examples. | 1+(6+3) |
| (d) Comment on the endosperm development types in angiosperms with suitable illustrations and examples. What is nucellus? | (6+3)+1 |
| (e) Differentiate between vegetative reproduction and agamospermy. Describe different types of apomixis in angiosperms. Give example of an apomictic plant species. | 2+7+1 |