

M.Sc. (Botany) Semester - 3 (CBCS) Examination**DEC/JAN. - 2020 - [NEW COURSE]****Plant Anatomy, Embryology & Histological Techniques (Core (New))****Time: 1:30 Hours****Marks: 42****Instructions:**

1. Figure to the right indicate marks.
 2. There are five questions in the question paper.
 3. Answer any three of the following questions.
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- Q.1 Answer the following (any 7) 14**
1. Structure of 'root hairs' in short.
 2. Explain – Root architect
 3. Draw and label diagram of any two tetrasporic embryo sac development process
 4. Brief account on sexual incompatibility
 5. Explain Embryology in relation to taxonomy
 6. Explain Active Transport mechanism in cells.
 7. Explain – whole mounts
 8. What are insoluble polysaccharides?
 9. Draw and label diagram of any two vascular bundle
 10. Explain – pollination
- Q.2 Write short note (any two) 14**
1. Root apical meristem
 2. Heart wood and Soft wood
 3. Define word Vascular Bundle and describe its types
- Q.3 Answer the following (any two) 14**
1. State the development of male gametophyte
 2. Explain types of Endosperm
 3. Describe double fertilization process
- Q.4 Answer the following (any two) 14**
1. Write short note on Apomixis
 2. Describe process, types and factors affecting on Diffusion
 3. Explain Uniports, Symports and Antiports mechanism
- Q.5 Write short note (any two) 14**
1. Pollen pistil interaction
 2. Mounting for temporary preparation
 3. Primary and secondary structure of Proteins
