

Enrollment No. _____



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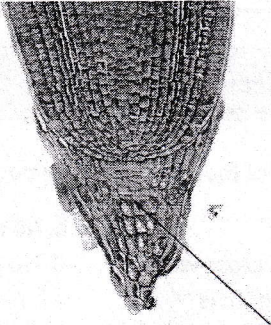
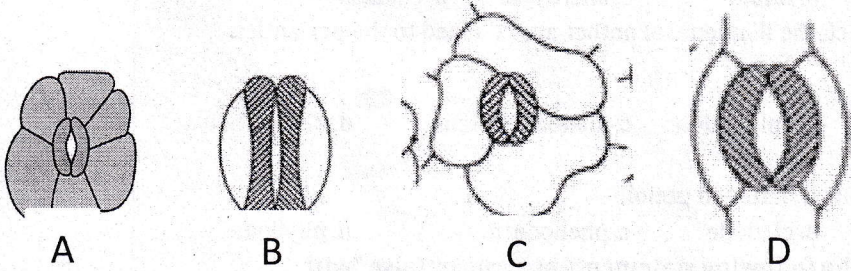
School: School of Science
Program/s: BSc-LS
Year: 2nd **Semester:** 3rd
Examination: End Semester Examination
Examination year: December - 2021

Course Code: LS274 **Course Name:** Plant Morphology and Anatomy
Date: 03/12/2021 **Total Marks:** 40
Time: 08:30 am to 10:30 am **Total Pages:** 3

Instructions:

- Write each answer on a new page
- Draw neat and well-labelled diagrams wherever required
- * COs=Course Outcome mapping. # BTL=Bloom's Taxonomy Level mapping

| Q. No. | Details | Marks | COs * | BTL # |
|--------|--|-------|-------------------|---------------------|
| Q.1 | <p>Q1 A. Choose the correct option (7M)</p> <p>1. Sieve tubes are suited for translocation of food because they possess</p> <p>a. Bordered pits b. No end walls c. Broader lumen and perforated cross walls d. No protoplasm</p> <p>2. A simple mechanical tissue devoid of lignin is</p> <p>a. Parenchyma b. Sclerenchyma c. Collenchyma d. Chlorenchyma</p> <p>3. Casparian strip occurs in a/an</p> <p>a. Endodermis b. Exodermis c. Pericycle d. Epidermis</p> <p>4. The secondary wall in plant cells grows by _____</p> <p>a. Intussusception b. internal growth c. division d. accretion</p> <p>5. The scar in a mature seed representing the point of attachment of seed to its stalk is known as</p> <p>a. funiculus b. hilum c. micropyle d. chalaza</p> <p>6. The condition in which the filaments of anther are attached to the perianth is known as</p> <p>a. epiphyllous b. epipetalous c. monoadelphous d. diadelphous</p> <p>7. A _____ represents a flattened petiole</p> <p>a. phylloclade b. cladode c. phelloderm d. phyllode</p> <p>Q1 B. State whether the following statements are true or false "with justification" (5 M)</p> | 12 | CO 1,2, 3,4 | BT1, BT2, BT3 |

| | | | | |
|-------------------|---|-----------|----------------------------|------------------------------|
| | <p>7. A _____ represents a flattened petiole a. phylloclade b. cladode c. phelloderm d. phyllode</p> <p>Q1 B. State whether the following statements are true or false “with justification” (5 M)</p> <ol style="list-style-type: none"> 1. The condition in which fruits are developed without the formation of seeds is called oogamy 2. A leaflet hook is a type of specialized leaf which has a threadlike shape and coils around objects and provide support that enables the plant to climb 3. Transpiration refers to the excretion of water from the edges of leaves and other vascular plants due to increased levels of water in the soil at night 4. In a siliqua fruit, the fruit wall is free from testa and shows the presence of a pappus having a crown of hair like processes which helps in wind-dispersal 5. Medullary bundles and cortical bundles are formed as a part of normal plant development | | | |
| <p>Q.2</p> | <p>Answer the following in one or two sentences (6 questions X 2 Marks=12 Marks)</p> <ol style="list-style-type: none"> 1. Identify the marked part in the given image of an L.S. of root. Write its function.  <ol style="list-style-type: none"> 2. Differentiate angular collenchyma from lacunar collenchyma 3. Discuss the mechanism by which the venus flytrap catches its prey 4. How do you identify a spathy bract? 5. What do you mean by a paripinnate and an imparipinnate leaf? 6. Discuss any two points of difference between a true fruit and a false fruit | <p>12</p> | <p>CO 1,2, 3,4</p> | <p>BT1, BT2, BT3</p> |
| <p>Q.3</p> | <p>Answer the following in detail ANY FOUR (4 Marks X 4questions =16 Marks)</p> <ol style="list-style-type: none"> 1. Discuss the type of stomata in A, B, C and D  <p>A B C D</p> <ol style="list-style-type: none"> 2. What are foliage leaves, cataphylls and hypsophylls? What are bundle sheath cells? | <p>16</p> | <p>CO 1,2, 3,4</p> | <p>BT1, BT2, BT3</p> |