

**BSc4BotC0401**                      **Seat No: \_\_\_\_\_**  
**B.Sc. Semester - 4 (CBCS) Examination**  
**March/April- 2019**  
**BOTANY**  
**(CORE)**

**Time: 2:30 Hours**

**Marks: 70**

**Instructions:**

1. All questions are compulsory.
  2. Figures to the right indicate marks.
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**Q – 1 Give the answer of following questions. (14)**

- (A) Answer any one question in detail (any one) (07)
- (1) Discuss anomalous secondary growth in *Dracaena*.
  - (2) Discuss anomalous secondary growth in *Bignonia*.
- (B) Shortly answer any one question (any one) (04)
- (1) Discuss anatomical difference between monocot stem and dicot stem.
  - (2) State the difference between spring wood and autumn wood
- (C) Answer the following question very shortly (any three) (03)
- (1) The insertion of parenchyma cells into tracheary element is called \_\_\_\_.
  - (2) The pith of *Bignonia* is made up of collenchyma tissues - true or false?
  - (3) The bundal sheath is made up of \_\_\_\_\_ types of cells.
  - (4) Give the name of vascular bundal in which xylem surrounding the phloem.
  - (5) Casparian strip is made up of \_\_\_\_\_ and \_\_\_\_\_ macro molecules.

**Q – 2 Give the answer of following questions. (14)**

- (A) Answer any one question in detail (any one) (07)
- (1) Discuss the development of male gametophyte.
  - (2) Describe double fertilization.
- (B) Shortly answer any one question (any one) (04)
- (1) Describe Polygonum type of embryo sac development.
  - (2) Describe fritillaria type of embryo sac.
- (C) Answer the following question very shortly (any three) (03)
- (1) Four polar nuclei are observed in which two type of embryo sac.
  - (2) Total number of meiotic division required for forming 100 zygotes/100 grains of wheat is
  - (3) State the function of tube nucleus.
  - (4) What is misogamy?
  - (5) State the function of germ pore.

**Q – 3 Give the answer of following questions. (14)**

- (A) Answer any one question in detail (any one) (07)
- (1) Discuss passive absorption of minerals.
  - (2) Describe mechanism of translocation of foods in plants.
- (B) Shortly answer any one question (any one) (04)
- (1) What is osmotic pressure? Explain it.
  - (2) Discuss the mechanism of vernalization.
- (C) Answer the following question very shortly (any three) (03)
- (1) Define - Diffusion.
  - (2) Define - Osmosis.
  - (3) What is imbibition?
  - (4) State the main two causes for seed dormancy.
  - (5) The method employed in softening or weakening of seed coat is known as.

- Q – 4 Give the answer of following questions. (14)**
- (A) Answer any one question in detail (any one) (07)
- (1) Describe the different types soil erosion caused by water.
  - (2) Describe any three methods for biological soil conservation.
- (B) Shortly answer any one question (any one) (04)
- (1) Describe the uses of Remote Sensing.
  - (2) Describe the methods of wind erosion control.
- (C) Answer the following question very shortly (any three) (03)
- (1) State the soil particles name and size
  - (2) Define soil erosion.
  - (3) Define soil conservation
  - (4) What is remote sensing?
  - (5) What is the difference between eluviations and illuviation?
- Q – 5 Give the answer of following questions. (14)**
- (A) Answer any one question in detail (any one) (07)
- (1) Describe cytoplasmic inheritance in *Mirabilis jalapa*
  - (2) What is polyploidy? Describe its types.
- (B) Shortly answer any one question (any one) (04)
- (1) Discuss the methods of mass selection.
  - (2) What is artificial seed? State its application.
- (C) Answer the following question very shortly (any three) (03)
- (1) State the standard size for herbarium sheet.
  - (2) Give the names of the chemicals used for poisoning of Herbarium.
  - (3) The total self duplicating hereditary material of cytoplasm is called
  - (4) Who describe cytoplasmic inheritance in yeast?
  - (5) True or false - Varieties produced by pure line selection can't grow in wide area of a country.

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