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BSc4BotC0401  
B.Sc. Semester - 4 (CBCS) Examination  
March/April- 2019  
BOTANY  
(CORE)

Seat No: \_\_\_\_\_

Time: 2:30 Hours

Marks: 70

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate marks.

Q - 1 Give the answer of following questions.

- (A) Answer any one question in detail (any one) (14)  
(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 bundle sheath is made up of \_\_\_\_\_ types of cells.  
(4) Give the name of vascular bundle in which xylem surrounding the phloem.  
(5) Casparian strip is made up of \_\_\_\_\_ and \_\_\_\_\_ macro molecules.

Q - 2 Give the answer of following questions.

- (A) Answer any one question in detail (any one) (14)  
(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 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.

- (A) Answer any one question in detail (any one) (14)  
(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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