



DAI-003-2014006

Seat No. _____

B. Sc. (Sem. IV) (W.E.F. 2019) (CBCS) Examination

April - 2022

B-401 : Fundamental & Advance Botany

Faculty Code : 003

Subject Code : 2014006

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Instructions :**
- (1) This question paper contains Five questions. All questions are compulsory.
 - (2) Write answers of all the questions in main answer sheet.
 - (3) Draw neat and labelled diagrams wherever necessary.
 - (4) Figures to the right side indicate full marks for the question.

- 1 (a) Objective type questions : 4
- (1) In dicot stem which type of vascular bundles are found?
 - (2) True or false: The main function of Xylem is conduction of water
 - (3) Root hair arise from _____.
 - (4) Where motor cells are located?
- (b) Answer in brief : (any **one**) 2
- (1) Write any two special features of T.S. of monocot leaf.
 - (2) What are the complex tissues? Write only names of complex tissues.
- (c) Answer in detail : (any **one**) 3
- (1) Write down any three differences between dicot and monocot root.
 - (2) Write structure and function of phloem.

- (d) Write a note on : (any one) 5
- (1) Describe anatomy of dicot stem with diagram.
 - (2) Explain simple tissues in plants.
- 2** (a) Objective type questions : 4
- (1) What is pollen kit?
 - (2) Who discovered double fertilization?
 - (3) Write down the names of pollen grain wall.
 - (4) What is pollination?
- (b) Answer in brief : (any **one**) 2
- (1) Write about Anotropous ovule.
 - (2) What is hydrophily?
- (c) Answer in detail : (any **one**) 3
- (1) Describe Orthotropous ovule with diagram.
 - (2) Write a note on germination of pollen grain.
- (d) Write a note on : (any **one**) 5
- (1) Explain-types of ovules in detail.
 - (2) Describe double fertilization with diagram.
- 3** (a) Objective type questions : 4
- (1) Write down the size of sand particles.
 - (2) Define seed dormancy?
 - (3) The phenomenon of Osmosis is carried out through _____ membrane.
 - (4) What is soil erosion?
- (b) Answer in brief : (any **one**) 2
- (1) What is diffusion? Give the name of types of diffusion.
 - (2) What is soil texture? Write the size of particles.

- (c) Answer in detail : (any **one**) **3**
- (1) What is osmosis? Explain Thistle funnel experiment.
 - (2) Write a note on soil erosion.
- (d) Write a note on : (any **one**) **5**
- (1) Explain soil conservation in detail.
 - (2) Describe causes of seed dormancy.
- 4 (a) Objective type questions : **4**
- (1) Write the ideal size of typical herbarium.
 - (2) What is grafting?
 - (3) What is scion?
 - (4) Write the scientific name of Chilly.
- (b) Answer in brief : (any one) **2**
- (1) What is Nursery, technique? Write any two names of Nursery techniques.
 - (2) What is layering? Write one example of it.
- (c) Answer in detail : (any **one**) **3**
- (1) Describe : Air layering.
 - (2) Write a note on kitchen gardening. Give the names of vegetables studied as per your syllabus.
- (d) Write a note on : (any **one**) **5**
- (1) Explain herbarium technique.
 - (2) Describe cleft and whip grafting with diagram.
- 5 (a) Objective type questions : **4**
- (1) What is GIS?
 - (2) What is hydroponics ?
 - (3) Give the full form of IPR.
 - (4) State true or false: Kolhapuri chappal is trademark.

- (b) Answer in brief : (any one) **2**
- (1) Write any two advantages of hydroponics.
 - (2) Write in brief about nutrients required in hydroponics.
- (c) Answer in detail : (any **one**) **3**
- (1) Write applications of remote sensing.
 - (2) Explain trademarks.
- (d) Write a note on : (any one) **5**
- (1) Describe Patent and trademarks.
 - (2) Explain Remote sensing in detail.
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