



Seat No. _____

HK-003-2014006
B. Sc. (Sem.-IV) (CBCS)
(W.E.F. 2019) Examination

April - 2023

Botany : B-401

(Fundamental & Advance Botany)

(Old Course)

Faculty Code : 003

Subject Code : 2014006

Time : Hours / Total Marks : 70

Instructions :

- (1) Draw neat and labelled diagrams wherever necessary.
- (2) Figures to the right indicate full marks for the questions.
- (3) Answer the following questions.

- 1** (a) Objectives : **4**
- (1) What is simple tissue ?
 - (2) How many groups of permanent tissue ?
 - (3) In a dorsiventral leaf location of palisade tissue and phloem respectively are on the
 - (4) Write down complex tissue name.
- (b) Explain any **One** out of **Two** : **2**
- (1) Write function of scleried.
 - (2) Define mesophyll tissue.
- (c) Explain any **One** out of **Two** : **3**
- (1) Give internal structure of dicot root with labelled diagram.
 - (2) Difference between xylem and phloem.
- (d) Explain any **One** out of **Two** : **5**
- (1) Difference between monocot leaf and dicot leaf.
 - (2) Write down anatomical outline of primary structure in Sunflower stem.

- 2 (a) Objectives : 4
- (1) How many types of ovules ?
 - (2) How many types of pollination ?
 - (3) The generative nucleus of pollen grain divides to form _____.
 - (4) Function of tapetum.
- (b) Explain any **One** out of **Two** : 2
- (1) Define Pollen Kit.
 - (2) Which types of organs present in flower ?
- (c) Explain any **One** out of **Two** : 3
- (1) Explain structure of pollen grain.
 - (2) Explain anemophily pollination.
- (d) Explain any **One** out of **Two** : 5
- (1) Write down types of ovule.
 - (2) Explain the process of double fertilization.
- 3 (a) Objectives : 4
- (1) Size of coarse sand is _____ mm in diameter.
 - (2) Give example of diffusion occur between gas and gas.
 - (3) Seed dormancy divide into which two categories.
 - (4) What is soil erosion ?
- (b) Explain any **One** out of **Two** : 2
- (1) Write down in types of sed dormancy.
 - (2) Draw labeled diagram of soil profile.
- (c) Explain any **One** out of **Two** : 3
- (1) How to absorb a water in plant ?
 - (2) Define different mode of soil erosion.
- (d) Explain any **One** out of **Two** : 5
- (1) Describe Seed dormancy in details.
 - (2) Explain different methods of soil conservation.
- 4 (a) Objectives : 4
- (1) Write the measurement of typical herbarium sheet.
 - (2) What is difference in stock and scion ?
 - (3) How many types of layering ? Give name.
 - (4) How many days after harvest a tomato ?
- (b) Explain any **One** out of **Two** : 2
- (1) Write the name of grafting techniques.
 - (2) Write down benefits of kitchen gardening.

- (c) Explain any **One** out of **Two** : 3
 (1) Explain the tools are using in making herbarium sheet.
 (2) Which type of fertilizers are used in kitchen gardening ?
- (d) Explain any **One** out of **Two** : 5
 (1) In detail write about a whip and tongue graft method.
 (2) How to cultivate, manage and harvest a chilli plant in kitchen garden ?
- 5** (a) Objectives : 4
 (1) How pH should maintain in hydroponics ?
 (2) Full form of IPR.
 (3) What is geographical indication ?
 (4) Define term Remote Sensing.
- (b) Explain any **One** out of **Two** : 2
 (1) Is water quality impotent in hydroponics ? Why ?
 (2) Which type of invention are patentable ?
- (c) Explain any **One** out of **Two** : 3
 (1) Write down advantages and disadvantages of rockwool growing medium.
 (2) Write down types of patent.
- (d) Explain any **One** out of **Two** : 5
 (1) Write down in a detail geographical indication.
 (2) What is Remote Sensing ? Write application of Remote sensing for the management of ecosystem.
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