



PAQ-003-1015038

Seat No. _____

B. Sc. (Sem. V) (CBCS) Examination

October / November - 2018

Botany : B-502

(Biology of Seed Plants)

(New Course)

Faculty Code : 003

Subject Code : 1015038

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

[Total Marks : 70

- Instructions :** (1) Attempt all the questions.
(2) Answer with draw neat and labelled diagram wherever necessary.
(3) Figures to the right side indicated total marks for the questions.

1 (a) Answer the following Objective type questions : 4

- (1) The fused cup - like bracts in the cone of *Gnetum* are called
- (2) Mention true or false : The male and female reproductive Structure of *Gnetum* show more affinity with angiosperms than gymnosperms.
- (3) Which type of vascular bundle is observed in *Ephedra* root?
- (4) The frutifications of cordites are known as

(b) Answer in brief : (any 1 out of 2) 2

- (1) Write the external features of *Pentoxylon*.

OR

- (2) Write about the external morphology of *Ephedra* stem.

(c) Answer in detail : (any 1 out of 2) 3

- (1) Explain the anatomy of *Gnetum* young root.

OR

- (2) Describe the internal structure of *Ephedra* young stem.

- (d) Write a note on (Any 1 out of 2) 5
- (1) Describe male gametophyte in *Ephedra*.
- OR**
- (2) Explain longitudinal section of Gnetum mature ovule with diagram
- 2** (a) Answer the following Objective type questions : 4
- (1) Who is the father of modern botany ?
- (2) Write the main character of series bicarpellatae.
- (3) Define - Species.
- (4) Which book is published by Carolus Linnaeus in 1st May 1753 ?
- (b) Answer in brief : (any 1 out of 2) 2
- (1) Write the demerits of Bentham and Hooker classification system.
- OR**
- (2) Explain the six aims of taxonomy.
- (c) Answer in detail : (any 1 out of 2) 3
- (1) Write the merits of Bentham and Hooker classification system.
- OR**
- (2) Write short note : Taxon, Family.
- (d) Write a note on : (any 1 out of 2) 5
- (1) Draw the Outline of Bentham and Hooker classification.
- OR**
- (2) Write the principles of Taxonomy.
- 3** (a) Answer the following Objective type questions : 4
- (1) According to Bentham and hooker's classification Cappariaceae family is belongs to series.
- (2) The characteristic of fruit of family Asteraceae is :
- (3) In Asclepidiaceae family the modified stamen is known as :
- (4) Corchorus is belongs to Family.

- (b) Answer in brief : (any 1 out of 2) 2
- (1) Assign the following plants to the respective family.
- (a) *Tridax procumbence*
- (b) *Tecoma stans*

OR

- (2) Comment upon calyx and corolla in Polygonaceae family.

- (c) Answer in detail : (any 1 out of 2) 3
- (1) Give information about the inflorescence of Asteraceae family.

OR

- (2) Give floral formula and diagram of Convolvulaceae family with two scientific names of plants belonging to family.

- (d) Write a note on : (any 1 out of 2) 5
- (1) Give general characteristics of Solanaceae family with floral formula and floral diagram.

OR

- (2) Give general characteristics of Cypraceae family with floral formula and floral diagram.

- 4 (a) Answer the following Objective type questions : 4
- (1) Write the scientific name of Heena.
- (2) *Vernonia cineria* plant belongs to which of family ?
- (3) Which family is known as vegetable family ?
- (4) Write the floral formula of Lythraceae family.

- (b) Answer in brief : (any 1 out of 2) 2
- (1) Give information about the reproductive whorls of Lythraceae family.

OR

- (2) Draw a floral diagram and floral formula of Rosaceae family.

- (c) Answer in detail : (any 1 out of 2) 3
- (1) Write general characteristic of Bignonaceae family.
- OR**
- (2) Give information about whorls of Amarnathaceae family.
- (d) Write a note on (Any 1 out of 2) 5
- (1) Give general characteristics of Canaceae family with floral formula and floral diagram. Give the two examples of plants belonging to it.
- OR**
- (2) Give general characteristics of Capparidaceae family with floral formula and floral diagram. Give the two examples of plants belonging to it.
- 5 (a) Answer the following Objective type questions : 4
- (1) Define - Double fertilization.
- (2) Give the distinguish between non-endospermic and endospermic seeds.
- (3) The exine of pollen grain is made up of layer.
- (4) Write the function of tapetam.
- (b) Answer in brief : (any 1 out of 2) 2
- (1) Write a note on Cellular endosperm.
- OR**
- (2) Write a note on Nuclear endosperm.
- (c) Answer in detail : (any 1 out of 2) 3
- (1) Describe Helobial endosperm.
- OR**
- (2) Describe embryo development in monocotyledons.
- (d) Write a note on : (any 1 out of 2) 5
- (1) Explain - Factor affecting pollen germination.
- OR**
- (2) Describe embryo development in dicotyledons.