



RO-003-1015038

Seat No. _____

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

February - 2019

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) Ephedra belong to _____ Class.
(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) Mention true or false: Each male strobilus arises from the axile of a leaf in Ephedra.
- (B) Answer in brief : (Any **One** out of Two) 2
(1) Classify Gnetum.
OR
(2) Write about the external morphology of Ephedra stem.
- (C) Answer in detail : (Any **One** out of Two) 3
(1) Explain the anatomy of Ephedra young root.
OR
(2) Describe the internal structure of Gnetum young stem.

- (D) Write a note on : (Any **One** out of Two) 5
- (1) Give the diagrammatic presentation of lifecycle of *Gentum*.
- OR**
- (2) Explain longitudinal section of *Gnetum* mature ovule with diagram.
- 2** (A) Answer the following Objective type questions : 4
- (1) Bentham and Hooker published their work as name:
 - (2) Write the main character of series bicarpellatae.
 - (3) Mention true or false - polypetalous means petals are always free with each other.
 - (4) Which family possess gynandrophore?
- (B) Answer in brief : (Any **One** out of Two) 2
- (1) Write the demerits of Bentham and Hooker classification system.
- OR**
- (2) Write short note: Taxon, Family.
- (C) Answer in detail : (Any **One** out of Two) 3
- (1) Write the principles of Taxonomy.
- OR**
- (2) Draw the outline of Bentham and Hooker classification.
- (D) Write a note on : (Any **One** out of Two) 5
- (1) Explain the aims of taxonomy.
- OR**
- (2) Write the merits of Bentham and Hooker classification system.
- 3** (A) Answer the following Objective type questions : 4
- (1) The flower with superior ovary is _____ flower.
 - (2) In which family style passes through Staminal tube?
 - (3) In Asclepidiaceae family the modified stamen is known as:
 - (4) *Vernonia cineria* is belongs to _____ Family.

- (B) Answer in brief : (Any **One** out of Two) 2
- (1) Assign the following plants to the respective family.
 - (a) *Tridax procumbens*
 - (b) *Tecoma stans*

OR
 - (2) Comment upon calyx and corolla in Asteraceae family. .
- (C) Answer in detail : (Any **One** out of Two) 3
- (1) Give information about the inflorescence of Tiliaceae 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 **One** out of Two) 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 Rose.
 - (2) Heena belongs _____ Family.
 - (3) Which family is known as vegetable family?
 - (4) *Cleome viscosa* belongs to _____
- (B) Answer in brief : (Any **One** out of Two) 2
- (1) Give information about the reproductive whorls of Amaranthaceae family.

OR
 - (2) Draw a floral diagram and floral formula of Bignonaceae family.
- (C) Answer in detail : (Any **One** out of Two) 3
- (1) Write general characteristic of Rosaceae family.

OR
 - (2) Give information about whorls of Capparidaceae family.

(D) Write a note on (Any **One** out of Two) 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 Lythraceae 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) Mention true or false: Angiosperm always shows double fertilization.
- (2) Mention true or false: During embryogeny first division of zygote in angiosperm is always transverse.
- (3) Define - Embryogenesis.
- (4) Write the function of tapetam.

(B) Answer in brief : (Any **One** out of Two) 2

- (1) Write a note on Cellular endosperm.

OR

- (2) Write a note on Nuclear endosperm.

(C) Answer in detail : (Any **One** out of Two) 3

- (1) Explain - Factor affecting pollen germination.

OR

- (2) Describe embryo development in monocotyledons.

(D) Write a note on (Any **One** out of Two) 5

- (1) Describe Helobial endosperm.

OR

- (2) Describe embryo development in dicotyledons.