



JW-003-1015038

Seat No. _____

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

October - 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 indicates total marks for the question.

- 1 (a) Objective type questions : 4
- (1) In Gnetum, Margin of the leaves partly fuse together and form cup like a structure called....
 - (2) Which Gymnosperm is known as "Living Fossils" ?
 - (3) Ephedra belongs to class
 - (4) The fructifications of Cordites are known as
- (b) Answer in brief : (any 1 out of 2) 2
- (1) External features of Pentoxylon
 - (2) Draw a labelled diagram of Ephedra leaf
- (c) Answer in detail (any 1 out of 2) : 3
- (1) Give systematic position of Ginkgo
 - (2) Write about the external morphology of Ephedra stem

- (d) Write a note on : (any 1 out of 2) 5
- (1) Give only diagrammatic representation of the life cycle of Gnetum
 - (2) Describe male cone of Ephedra
- 2** (a) Objective type questions : 4
- (1) The word taxonomy was first used by.....
 - (2) Genera Plantarum is published by.....
 - (3) Who gave the Natural system for plant classification ?
 - (4) Write the main characters of Polypetalae.
- (b) Answer in brief : (any 1 out of 2) 2
- (1) Write any two merits of Bentham and Hooker classification system.
 - (2) Write short note : Taxon
- (c) Answer in detail : (any 1 out of 2) 3
- (1) Draw The outline of Bentham and Hooker classification
 - (2) Write the Principle of Taxonomy
- (d) Write a note on : (any 1 out of 2) 5
- (1) Explain the main concept of Bentham and Hooker Classification system.
 - (2) Explain the aims of Taxonomy.
- 3** (a) Objective type questions : 4
- (1) In Asclepidiaceae, the stamens are modified and known as.....
 - (2) Write the floral formula of Rosaceae family.
 - (3) Lythraceae is belongs to subclass.
 - (4) Give the scientific name of Potato and Brinjal.

- (b) Answer in brief : (any 1 out of 2) 2
- (1) Write general characters of Bignonaceae family.
 - (2) Give the information about the corolla of Polygonaceae family.
- (c) Answer in detail : (any 1 out of 2) 3
- (1) Give information about the disc floret of Asteraceae family.
 - (2) Assign the following plants to the respective family
 - (a) *Achyranthes aspera*
 - (b) *Ipomoea palmate*
 - (c) *Lawsonia innermis*
- (d) Write a note on : (any 1 out of 2) 5
- (1) Give general characteristics of Cypraceae family with floral formula and floral diagram.
 - (2) Give general characteristics of Cappridaceae family with floral formula and floral diagram
- 4 (a) Objective type questions : 4
- (1) Give the scientific name of Akado which belongs to Asclepidiaceae family
 - (2) Which type of inflorescence is present in Asteraceae family ?
 - (3) How can identified dicot and monocot leaf ?
 - (4) Write the floral formula of Canaceae family.
- (b) Answer in brief : (any 1 out of 2) 2
- (1) Assign the following plants to the respective family.
 - (a) *Tridax procumbence*
 - (b) *Canna indica*
 - (2) Give information about the reproductive whorls of Rosaceae family

- (c) Answer in detail : (any 1 out of 2) 3
- (1) Give information about the inflorescence of Tiliaceae family.
 - (2) Write general characteristics of Convolvulaceae family.
- (d) Write a note on : (any 1 out of 2) 5
- (1) Give general characters of Solanaceae family with floral formula and floral diagram. Give the two examples of plants belongs to it.
 - (2) Give general characters of Rosaceae family with floral formula and floral diagram. Give the two examples of plants belongs to it.
- 5 (a) Objective type questions : 4
- (1) What is the function of tapetum ?
 - (2) Define : Embryogenesis.
 - (3) Who is the father of Indian Angiosperm Embryology ?
 - (4) The endosperm is formed by the fusion of haploid nuclei.
- (b) Answer in brief : (any 1 out of 2) 2
- (1) Write a note on Nuclear endosperm.
 - (2) Give information about the wall of pollen grain.
- (c) Answer in detail : (any 1 out of 2) 3
- (1) Give a short essay on the development of embryo in monocotyledons.
 - (2) Explain : factor affecting pollen germination.
- (d) Write a note on : (any 1 out of 2) 5
- (1) Describe embryo development in Dicotyledons.
 - (2) Write a short note on cellular endosperm.