



BCG-003-1015038 Seat No. _____

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

August – 2021

B - 502 : Botany

(Biology of Seed Plants)

(New Course)

Faculty Code : 003

Subject Code : 1015038

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

[Total Marks : 70

Instructions :

- (1) Attempt any five questions out of the following 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 : 04

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

(B) Draw a labelled diagram of *Ephedra* leaf. 02

(C) Explain the anatomy of *Gnetum* young root. 03

(D) Describe Female cone of *Ephedra*. 05

2. (A) Answer the following Objective type questions : 04

- (1) *Ephedra* is aromatic beverages known as
- (2) *Gnetum* seed germinate after months of shedding from the mother plants.
- (3) Which type of vascular bundle is observed in *Ephedra* root?
- (4) Drug of *Ephedra* is used to treatment of

(B) Write the morphology of *Ephedra*. 02

(C) Describe the internal structure of *Ephedra* young stem. 03

(D) Explain longitudinal section of *Gnetum* mature ovule with diagram.. 05

- 3. (A) Answer the following Objective type questions :** **04**
- (1) Bentham and Hooker published their work as name
 - (2) Who is the father of modern botany?
 - (3) Define – species.
 - (4) Mention true or false: According to Bentham and Hooker, Polypetalae is divided in to 2 series.
- (B) Define – Family.** **02**
- (C) Write the merits of Bentham and Hooker classification** **03**
- (D) Draw the outline of Bentham and Hooker classification.** **05**
- 4. (A) Answer the following Objective type questions :** **04**
- (1) Define the term – Taxonomic hierarchy
 - (2) Which book is published by CarolousLinnaeus in 1st may 1753?
 - (3) Write the main character of series Disciflorae.
 - (4) What is main character of Polypetalae?
- (B) Write only two demerits of Bentham and Hooker classification** **02**
- (C) Explain the six aims of taxonomy.** **03**
- (D) Describe principles of Taxonomy.** **05**
- 5. (A) Answer the following Objective type questions :** **04**
- (1) In Asclepiadiaceae family the modified stamen is known as:
 - (2) Which family is known as vegetable family?
 - (3) The characteristic of fruit of family Asteraceae is :
 - (4) Write the floral formula of Lythraceae,
- (B) Assign the following plants to the respective family.** **02**
- (a). *Tridax procumbence*
 - (b). *Annona squamosa*.
- (C) Give the information about the corolla of Polygonaceae family.** **03**
- (D) Give general characteristics of Capparidaceae family with floral formula and floral diagram. Give the two examples of plants belonging to it.** **05**
- 6. (A) Answer the following Objective type questions :** **04**
- (1) According to Bentham and hooker’s classification Capparidaceae family is belongs to series.
 - (2) In Cannaceae position of ovary is _____
 - (3) Explain sign – P(3).
 - (4) Rosaceae family is classified under series.....

- (B) Write a botanical name of any 4 plants found in your college campus. 02
- (C) Give information about the reproductive whorls of Lythraceae family. 03
- (D) Give general characteristics of Rosaceae family with floral formula and floral diagram. 05
7. (A) Answer the following Objective type questions : 04
- (1) Petaloid staminode is a characteristics of which plant?
 - (2) Cyperaceae belongs to which series?
 - (3) What is a scientific name of Ice-cream creeper?
 - (4) Write the scientific name of Heena.
- (B) Give scientific name of Potato and Brinjal. 02
- (C) Write general characteristics of Asclepidiaceae family. 03
- (D) Give general characteristics of Tiliaceae family with floral formula and floral diagram. 05
8. (A) Answer the following Objective type questions : 04
- (1) *Vernonia cineria* plant belongs to which of family?
 - (2) How we can distinguish the dicotyledons and monocotyledon plants with the help of leaf venation?
 - (3) *Lycopersicon esculentum* belongs to family _____
 - (4) Corchorus is belongs to family.
- (B) Give information about the inflorescence of Asteraceae family 02
- (C) Write general characters of Bignonaceae family. 03
- (D) Give general characteristics of Solanaceae family with floral formula and floral diagram. 05
9. (A) Answer the following Objective type questions : 04
- (1) The exine of pollen grain is made up of layer.
 - (2) Write the function of tapetum.
 - (3) Define – Embryogenesis.
 - (4) Mention True or False: The endosperm is developed by fusion of 4 haploid nuclei.
- (B) Write a note on Cellular endosperm. 02
- (C) Describe Helobial endosperm 03
- (D) Explain embryo development in dicotyledons. 05

- 10. (A) Answer the following Objective type questions :** **04**
- (1) Mention true or false: Nature of secondary nucleus after fertilization in angiosperm is triploid.
 - (2) The Intine of Pollen grain is made of
 - (3) The Hypocotyle give rise to -----
 - (4) Which type of endosperm is found in coconut?
- (B) Explain - Factor affecting pollen germination.** **02**
- (C) Write a note on Nuclear endosperm.** **03**
- (D) Write short note embryo development in Dicotyledons.** **05**
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