



HCH-003-001510

Seat No. _____

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

October - 2017

Botany : Paper - B-502

(Biology of Seed Plants)

Faculty Code : 003

Subject Code : 001510

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

[Total Marks : 70

- Instructions :**
- (1) The question paper contains three questions. All are compulsory.
 - (2) Draw neat and labelled diagram whenever necessary.
 - (3) Figures to the right indicate marks.

1 Give short answers of the following questions : **20**

- (1) Explain term Gymnosperm.
- (2) Who proposed the name Pentoxylea?
- (3) Write the name of Gymnosperm that Palaeobotanists regards as a "Living fossil".
- (4) What is collar in Gnetum?
- (5) How many cotyledons are present in a seed of Ephedra?
- (6) Who was the author of the book titled "DIE NATIIRICHEN PFLANZENFAMILIEN" ?
- (7) Which series does family Solanaceae belongs to?
- (8) In Ficus (Fig) plant inflorescence type is _____
- (9) Monocotyledonous graminoid flowering plants known as sedges, belong to which family?

- (10) Bicarpellary syncarpous ovary with oblique placentation is characteristic of which family?
- (11) The plants of Cyperaceae family are popular as _____.
- (12) Write the name of parts which are consists in monocot embryo.
- (13) What is Endosperm?
- (14) Write any two demerits of Bentham and Hooker classification.
- (15) Write the scientific name of cotton (KAPAS) plant.
- (16) Which family known as vegetable family?
- (17) Monadelphous anther present in which family?
- (18) What is the botanical name of Boganvel a woody climber which is belonging to family Nyctaginaceae?
- (19) Staminal tube through which style passes is found in which family?
- (20) Culture of embryos of cotyledonary stage into seedlings is called _____.

2 (A) Give answers in short : (Any **Three**)

6

- (1) Discuss seed of Ephedra.
- (2) Write down any three principles of taxonomy.
- (3) What is genus? Describe briefly.
- (4) Give scientific name of two plants belonging to family Malvaceae.
- (5) Discuss special characters of Polygonaceae.
- (6) What is 'Cellular type of endosperm'?

- (B) Give answers in brief : (Any **Three**) **9**
- (1) Discuss 'anatomical structure of root of Ginkgo'.
 - (2) Discuss anatomy of Pentoxylon.
 - (3) Give distinguishing characters of Moraceae and Nyctagenaceae.
 - (4) How can you distinguish between Tiliaceae and Lythraceae ?
 - (5) Explain-mature monocot embryo.
 - (6) Explain-male cone Ephedra.
- (C) Answer in detail : (Any **Two**) **10**
- (1) Anatomical structure of Lyginodendron.
 - (2) Give distinguish feature of family Asteraceae and give its floral formulae and floral diagram.
 - (3) Write : Sexual reproduction in Gnetum.
 - (4) Which are the main concept in classification of angiosperm according to Bentham and Hooker?
 - (5) Anatomy of cordites.
- 3** (A) Give answers in short : (Any **Three**) **6**
- (1) What is taxonomic hierarchy?
 - (2) Draw floral formulae and floral diagram of Canaceae and Solanaceae.
 - (3) Give scientific names of four flowers used as ornamental flower.
 - (4) What is Caryophyllad type of embryo?
 - (5) Outline the classification of Takhtajan.
 - (6) Explain distribution of Ginkgo.

(B) Give answers in brief : (Any **Three**) **9**

- (1) What is chemotaxonomy?
- (2) Explain with diagram: Female cone in Gnetum.
- (3) Give taxonomic characters of Convolvulaceae.
- (4) What are the silent features of Amaranthaceae.
- (5) Describe-the leaf anatomy of Ginkgo.
- (6) Write the characters of series Infraclass.

(C) Describe in detail : (Any **Two**) **10**

- (1) Describe-Reproductive structure of Ginkgo.
- (2) Write a note on 'Origin of angiosperm'
- (3) Give distinguish feature of family Anonaceae and give its floral formulae and floral diagram with scientific names of two plants.
- (4) What is Embryo Culture? Discuss method and application.
- (5) Give Systematic position, economic importance and special characteristic of family Asclepiadaceae.
