



PAQ-003-001510

Seat No. _____

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

October / November - 2018

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 diagrams whenever necessary.
- (3) Figures to the right indicate marks.

- 1 Give short answers of the following questions : **20**
- (1) What is taxonomy category ?
 - (2) What is collar in Gnetum?
 - (3) Who proposed the name Pentoxylea ?
 - (4) Staminal tube through which style passes is found in which family?
 - (5) Write the name of Gymnosperm that Palaeobotanists are as regards as a "Living fossil".
 - (6) Culture of embryos of cotyledonary stage into seedlings is called _____.
 - (7) How many cotyledons are present in a seed of Ephedra?
 - (8) Define : pollinia
 - (9) Which series does family Solanaceae belong to?
 - (10) In Ficus (Fig) plant inflorescence type is _____.
 - (11) Monocotyledonous graminoid flowering plants known as sedges, belong to which family?

- (12) Bicarpellary syncarpous ovary with oblique placentation is characteristic of which family?
- (13) The plants of Cyperaceae family are popular as _____.
- (14) Write the names of parts which are consist in monocot embryo.
- (15) What is Endosperm?
- (16) Write any two demerits of Bentham and Hooker classification.
- (17) Write the scientific name of cotton (KAPAS) plant.
- (18) Which family is known as vegetable family?
- (19) Monadelphous anther is present in which family?
- (20) What is the botanical name of Boganel a woody climber which is belonging to family Nyctaginaceae?

- 2** (a) Give answers in short : (any **three**) **6**
- (1) Explain male cone of Ephedra.
 - (2) Write down any three principles of taxonomy.
 - (3) What is genus? Describe briefly.
 - (4) What is 'Cellular type of endosperm'?
 - (5) Give scientific name of two plants belonging to family polygonaceae.
 - (6) Discuss special characters of Malvaceae.
- (b) Give the answers in brief : (any **three**) **9**
- (1) Describe female cone of Ginkgo.
 - (2) Discuss three aims of taxonomy.
 - (3) Give distinguishing characters of Moraceae and Nyctagenaceae.
 - (4) How can you distinguish between Tiliaceae and Lythraceae.
 - (5) Explain-mature of monocot embryo.
 - (6) Write short note on development of endosperm.

- (c) Answer in detail : (any **two**) **10**
- (1) Anatomical structure of pentoxylon.
 - (2) Give distinguishing feature of family Asteraceae and give its floral formulae and floral diagram.
 - (3) Write: Sexual reproduction in Gnetum.
 - (4) Which are the main concepts in classification of angiosperm according to Bentham and Hooker?
 - (5) Explain monocot embryo.
- 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) Anatomy of cordites.
 - (5) Explain female cone Ephedra.
 - (6) Explain distribution of Ginkgo.
- (b) Give the answers in brief : (any **three**) **9**
- (1) What is chemotaxonomy? Discuss its role in plant taxonomy.
 - (2) Write short note on Numerical taxonomy.
 - (3) Give taxonomic characters of Convolvulaceae.
 - (4) What are the salient features of Amaranthaceae.
 - (5) Describe-the leaf anatomy of Ginkgo.
 - (6) Discuss Taxon, Genus.

(c) Describe in detail : (any **two**) **10**

- (1) Write a note on 'Origin of angiosperm'
- (2) Give systematic position, economic importance and special characteristics of family Asclepiadaceae
- (3) Give distinguishing features 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 the difference between Bentham and Hooker classification and Engler and Prantal classification.
