

**THIRD SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2014**

(U.G.—CCSS)

Complementary Course—Botany

**30 3C 03—CRYPTOGAMS, GYMNOSPERMS, PLANT PATHOLOGY AND GENETICS**

(2012 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

I. Objective type of questions. Each answer in a single word. Answer all *twelve* questions.

- 1 In which of the following group would you place a plant which produce seeds but lacks flower
  - (a) Fungi.
  - (b) Pteridophytes.
  - (c) Bryophytes.
  - (d) Gymnosperms.
- 2 A Gymnospermic plant :
  - (a) Bear flower.
  - (b) Exhibit no vascular tissue
  - (c) Produce seeds in cones.
  - (d) Does not produce seeds in cones.
- 3 Largest sperms are found in :
  - (a) *Pinus*.
  - (b) *Cedrus*.
  - (c) *Cycas*.
  - (d) *Gnetum*.
- 4 Pteridophytes are also called :
  - (a) Phanerogams.
  - (b) Vascular cryptogams.
  - (c) Spermatophytes.
  - (d) Amphibians of the plant kingdom.
- 5 Each gametes carry :
  - (a) Only recessive allele.
  - (b) Only dominant allele.
  - (c) Only one of the alleles.
  - (d) All of these.
- 6 Fungi secrete extracellular enzymes to breakdown nutrients. True/False.
- 7 In Mendels Dihybrid cross, the phenotypic ratio of F<sub>2</sub> for a single character is 9 : 3 : 3 : 1 True/False.
- 8 \_\_\_\_\_ produce basidiospores.
- 9 Riccia belongs to Order \_\_\_\_\_.
- 10 The crossing of F<sub>1</sub> to homozygous recessive parent is called \_\_\_\_\_.

Turn over



11 Define *Ascocarp*.

12 What is latent virus ?

(12 × ¼ = 3 weight)

II. Short answer type questions. Each answer in 3 or 4 sentences. Answer all *nine* questions.

13 Name *two* different species of *Selaginella*.

14 What is Bacteriophage ?

15 What are cyanobacteria ?

16 What is BGA ?

17 What is gametophyte ?

18 What is epistasis ?

19 Differentiate between test cross and back cross.

20 What are the symptoms of blast disease ?

21 What is heterocyst ?

(9 × 1 = 9 weight)

III. Short essay or paragraph questions. Each answer not exceeding 100 words. Answer any *seven* questions from seven.

22 Write the structure of TMV.

23 Differentiate between *Mastigimycotina* and *Ascomycotina*.

24 Give an account on structure of *Spirogyra*.

25 Write a note on life history of *Puccinia*.

26 Write a note on Lichens.

27 Name two fungal diseases of Citrus.

28 Write a note on incomplete dominance of *Mirabilis Jalapa*.

(5 × 2 = 10 weight)

IV. Essay questions. Each answer not to exceeding 300 words. Answer any *two* questions from

29 Give a detailed account on reproduction and economic importance of bacteria.

30 Give a general account and morphology and reproduction of *Riccia*.

31 Explain the Laws of Mendelism.

(2 × 4 = 8 weight)