

D 51515

(Pages 3)

Name.....

Reg. No.....

THIRD SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2013

(UG-CCSS)

Botany (Complementary Course)

BO 3C 03—CRYPTOGAMS, GYMNOSPERMS, PLANT PATHOLOGY AND GENETICS

(2012 Admissions)

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 produces spores has vascular tissue and lacks seed :
 - (a) Algae.
 - (b) Pteridophytes.
 - (c) Bryophytes.
 - (d) Gymnosperms.
- 2 Zooidogamy is seen in :
 - (a) *Cycas*.
 - (b) *Gnetum*.
 - (c) *Pinus*.
 - (d) Angiosperm.
- 3 The most significant reason why fungi are not in the kingdom Plantae is that fungi :
 - (a) are chemoorganotrophic heterotrophs.
 - (b) are procaryotes.
 - (c) have unicellular and multi-cellular forms.
 - (d) are eucaryotes.
- 4 Which of the following is true about cell wall of gram-positive bacteria ?
 - (a) It consists of multiple layers.
 - (b) It is thicker than that associated with gram-negative bacteria.
 - (c) It contains teichoic acids.
 - (d) All of these.
- 5 The cross in which parents differ in two pairs of contrasting characters is called :
 - (a) Monohybrid cross.
 - (b) Dihybrid cross.
 - (c) Trihybrid cross.
 - (d) Tetrahybrid cross.

Turn over

- 6 The phenotypic dihybrid ratio is 9:3:2:2. True/False.
- 7 The common word for bacteria which are helically curved rods is Spirilla. True/False.
- 8 *Riccia* is characterized by alternation of the generation and sporogenic meiosis is known as _____.
- 9 The sperm and egg are the reproductive structures developed by the _____.
- 10 Define sac fungi.
- 11 What are bacteriocins ?
- 12 What is systemic disease ?

(12 × ¼ = 3 weightage)

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

- 13 Write on *Archaeobacteria*.
- 14 What is flagellum ?
- 15 Define test cross.
- 16 What is symbolisation ?
- 17 Write on Citrus canker disease.
- 18 What is complementary gene ?
- 19 Define Symptoms.
- 20 What is epistasis ?
- 21 Write on *Anabean-azollae*.

(9 × 1 = 9 weightage)

III. Short essay or paragraph questions. Each answer not exceeding 100 words.

Answer *five* questions from seven :

- 22 Give a general account on viruses.
- 23 Write on economic importance of *Rhodophyceae*.
- 24 Briefly mention the classification of *Alexopoulos*.
- 25 Write morphology of *Selagenella*.
- 26 Write a note on Blast disease of paddy.
- 27 Write a note gene interaction.
- 28 Write a note life history of *Puccinia*.

(5 × 2 = 10 weightage)

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

29 Give a detailed account on structure, life history and economic importance of *Nostoc*.

30 What are Lichens ? Explain the economic importance of Lichens with reference to *Usnea*.

31 Give a detailed account on symptoms, methods of spreading and control measures of Citrus canker.

(2 × 4 = 8 weightage)