

D 51516

(Pages 2)

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

(2009 Admissions)

Time : Three Hours

Maximum : 30 Weightage

I. Objective type questions (include multiple choice, fill in the blanks and answer in a single word) :

Answer all *twelve* questions :

Choose the correct answer :

1 In cyanobacteria the nuclus is surrounded by :

- (a) double layered membrane. (b) Single layered membrane.
(c) no membrane. (d) none of these.

2 The pigment fucoxanthin is present in :

- (a) Chlorophyceae. (b) Phaeophyceae.
(c) Cyanophyceae. (d) Rhodophyceae.

3 In *Riccia* the sporophyte has :

- (a) foot, seta and capsule. (b) seta only.
(c) capsule only. (d) foot only.

4 Trabculated endodermis is seen in :

- (a) *Riccia*. (b) *Selaginella*.
(c) *Funaria*. (d) *Lycopodium*.

Fill in the blanks :

5 An adaxial out growth from the base of the leaves in *Selaginella* is called _____.

6 The type of sexual reproduction in bacteria is _____.

7 Incomplete dominance is observed in _____.

8 _____ is a common host plant of *Puccinia* in Kerala.

Turn over

Answer in a single word :

- 9 Alga present in coralloid roots.
- 10 Stele present in *Selaginella*.
- 11 Name of a plant where incomplete dominance is observed.
- 12 Pathogen of Blast of Paddy.

(12 × ¼ = 3 weightage)

II. Short answer questions. Answer *all nine* questions :

- 13 Coralloid roots in *Cycas*.
- 14 Selection of *Pisum sativum* as experimental material.
- 15 Transfusion tissue.
- 16 Symptoms of Citrus canker.
- 17 Heterospory and seed habit in *Selaginella*.
- 18 Sporophyte of *Riccia*.
- 19 Host plant of *Puccinia*.
- 20 Pigments in *Phaeophyceae*.
- 21 Heterocysts in *Nostoc*.

(9 × 1 = 9 weightage)

III. Short essay or paragraph questions. Answer any *five* questions from seven :

- 22 Briefly explain the methods of reproduction in bacteria.
- 23 Describe the sex organs in *Sargassum*.
- 24 Give the structure of teleutosorus of *Puccinia*.
- 25 Explain the thallus structure of *Riccia*.
- 26 Describe the anatomy of *Selaginella* rhizophore.
- 27 Describe the structure of *Cycas* ovule.
- 28 With suitable example describe incomplete dominance.

(5 × 2 = 10 weightage)

IV. Essay questions. Answer any *two* questions from three :

- 29 What is Epistasis ? Explain with a suitable example. Draw the checker board.
- 30 With the help of labelled diagrams describe the life history of *Spirogyra*.
- 31 Write an essay on the life cycle of *Usnea*. Mention the economic importance of lichens.

(2 × 4 = 8 Weightage)