

D 72975

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Name.....

Reg. No.....

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, DECEMBER 2014

(CUCSS)

Botany

BO 01 CT01—PHYCOLOGY, BRYOLOGY, PTERIDOLOGY AND GYMNOSPERMS

Time : Three Hours

Maximum : 36 Weightage

1. Answer the questions briefly :

- 1 What are **synzoospores** ?
- 2 What are 'globule' and 'nucule' ?
- 3 What do you mean by **cryptoblasts** ?
- 4 What is a **cystocarp** ?
- 5 Briefly describe the pigmentation in algae.
- 6 What is the function of **psuedo elator** ?
- 7 Briefly describe the structure of **synangium**.
- 8 What is **heterospory** ?
- 9 Write short notes on : (a) **Protonema** ; (b) **Trabeculae**.
- 10 Comment on the 'fern' characters of the gymnosperm leaves
- 11 What is **Polyembryony** ? Give *one* example.
- 12 Describe the seed habit in **Selaginella**.
- 13 What are **corolloid** roots ? What is its function ?
- 14 What are the major economic importance of **Pteridophytes** ?

(14 x 1 = 14 weightage)

II. Answer any *seven* questions in not more than 100 words each :

- 15 Differentiate between meiotic **apogamy** and mitotic **apogamy**.
- 16 Briefly explain **triphasic haplobiontic** life cycle.
- 17 Comment on the economic importance of **Phaeophyceae**.
- 18 Write short notes on : (a) Algal bloom ; (b) **Pyrenoids** ; (c) **Endospore** ; and (d) **Heterocyst**.

Turn over

- 19 Describe the role of Bryophytes as pollution indicators.
- 20 Write down ambhibious characters of bryophytes.
- 21 Describe the structure and function of a ligule.
- 22 Rhizophore of Selaginella is called as an 'Organ-sui-generis'. Why ?
- 23 Describe the xerophytic characters of Gymnosperms.
- 24 Enumerate the important diagnostic features of Cycadales and Gnetales.

(7 x 2 = 14 weightage)

III. Answer any *two* questions in 300 words each :

- 25 With the help of suitable diagrams compare the post fertilization changes in Nemalionales and Ceramiales.
- 26 Give an account of the thallus organisation of Bryophytes in an evolutionary perspective.
- 27 Describe the stelar evolution in Pteridophyte stems.
- 28 "Gymnosperms are a connecting link between Angiosperms and Pteridophytes". Explain.

(2 x 4 = 8 weightage)