

2012

B.A./B.Sc. (Hons.) Fifth Semester

Botany

Paper - A: Biology of Cryptogames and Seed Plants

Time allowed: 3 Hours

Max. Marks: 36

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting one question from each Unit. Make appropriate diagrams wherever necessary.

x-x-x

I. A) Multiple Choice Questions:-

a) Heterotrichous thallus is

- (i) Plant body with different hair
- (ii) Body with different thalli
- (iii) Body with different prostrate and erect systems
- (iv) All of the above

b) Parasexuality means

- (i) Sexual reproduction is very advanced
- (ii) Absence of sexual reproduction
- (iii) Cycle with plasmogamy, karyogamy and meiosis are in sequence
- (iv) All of the above

c) Why Red Algae is found in deep waters?

- (i) Because of presence of rocks there
- (ii) Red light wavelength reaches deep
- (iii) Due to presume of abundant bacteria
- (iv) All of the above

d) Apomixis is

- (i) Absence of meiosis
- (ii) Absence of fertilization
- (iii) Asexual formation of seed from tissue of ovule
- (iv) All of the above

P.T.O.

(2)

B) Fill in the blanks:-

- e) Spore print is _____.
- f) Role of Neck canal cells is _____.
- g) Gynandropsis provides evidence for _____.
- h) Vessels are found in _____ gymnosperms.

(8x1)

UNIT – I

- II. a) Explain evolutionary tendencies in Algae.
b) What is chartransia stage? Explain. (4,3)
- III. Describe the dikaryotic phase in Peziza and compare it with Agaricus. (7)

UNIT – II

- IV. Give a comparative account of sporophytic phase of Riccia and Marchantia. (7)
- V. a) Explain the structure of Equisetum strobilus.
b) Describe evolution of stele in Pteridophytes. (4,3)

UNIT – III

- VI. Give details of embryogeny in Cycas. (7)
- VII. Explain the structure of Pinus needle. (7)

UNIT – IV

- VIII. Discuss the structure and development of embryo sacs in Angiosperms. (7)
- IX. a) Explain Pollen-stigma interaction.
b) Describe the development of endosperms in flowering plants. (3,4)

x-x-x