

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2018
(First Semester)

Branch - BOTANY

PLANT DIVERSITY -1

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks')

Answer ALL questions

ALL questions carry EQUAL marks (10 x 1 = 10)

- 1 In carpoonium, the tip is prolonged into
(i) trichome (ii) trichogene
(iii) axial cell (iv) carpospore
- 2 Heterocysts are sensitive to
(i) CO_2 (ii) O_2
(iii) H_2O (iv) NO_2
- 3 Distinctive reproductive structures are seen in
(i) isogamy (ii) anisogamy
(iii) oogamy (iv) syngamy
- 4 In the life cycle of algae, two diploid phases are seen in _____ type.
(i) isomorphic (ii) heteromorphic
(iii) triphasic (iv) all of these
- 5 Non-motile spores are called
(i) zoospores (ii) aplanospores
(iii) oospores (iv) endospores
- 6 Conidia present in flask shaped structure is referred as
(i) Aeciospores (ii) Basidiospores
(iii) Pycnidiospores (iv) Conidiospores
- 7 Which of the following lacks sexual reproduction?
(i) Ascomycetes (ii) Basidiomycetes
(iii) Zygomycetes (iv) Deuteromycetes
- 8 Fusion of two naked gametes is called
(i) Gametangial contact (ii) Planogametic Copulation
(iii) Gametangial Copulation (iv) Spermatization
- 9 Dispersal of spores in bryophytes is facilitated by
(i) Capsule (ii) elater
(iii) perithecium (iv) operculum
- 10 In bryophytes, spore mother cells are _____ innature.
(i) haploid (ii) diploid
(iii) Triploid (iv) tetraploid

SECTION - B (35 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 7 = 35)

- 11 a Trace the presence of reserve food in algae.

- 13 a Evaluate the contributions of Indian mycologist.
OR
b Justify the fungi are helpful to mankind.
- 14 a Describe the sequences in parasexuality in *Aspergillus nidulans*.
OR
b Apply your view to establish that physiology is accomplished in the organization of lichen thallus organization.
- 15 a Explain the spore dispersal mechanism in bryophytes.
OR
b Illustrate the classification of bryophytes by Smith.

SECTION - C (30 Marks)

Answer any **THREE** Questions
ALL Questions Carry EQUAL Marks (3 x 10 = 30)

- 16 Describe the classification of algae proposed by F.E. Fritsch.
- 17 Interpret various types of life cycle patterns found in algae.
- 18 Discuss the reproduction in basidiomycetes.
- 19 Discuss, how pattern of inheritance of mating genes is helpful to understand crossing over.
- 20 Assess the evolution of sporophytes in bryophytes.

Z-Z-Z

END