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SEAT No. _____

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SARDAR PATEL UNIVERSITY
B.Sc.Examination; V Semester
BOTANY-US05CBOT01

Algae, Bryophyta, Pteridophyta and Gymnosperms
Date: 22/10/2018, Monday; Time: 10.00a.m.-1.00p.m.

Marks-70

Q-1 Choose the correct answer:

(10)

(i) The algae which grow in/on snow are called:

- (a) endophytic (b) lithophytic (c) cryophytic (d) cryptophytic

(ii) Which one of the following algae lacks sexual reproduction?

- (a) Cladophora (b) Chlamydomonas (c) Nostoc (d) Ectocarpus

(iii) Advanced oogamous type of sexual reproduction is seen in _____.

- (a) Codium (b) Ectocarpus (c) Oedogonium (d) Cladophora

(iv) Which one of the following bryophyte is commonly known as peat mosses?

- (a) Pellia (b) Sphagnum (c) Marchantia (d) Riccia

(v) Multicellular articulate gemmae are found in:

- (a) Ulota (b) Polytrichum (c) Riccia (d) Marchantia

(vi) Protonema is a stage in the life cycle of _____.

- (a) Spirogyra (b) Rhizopus (c) Mosses (d) Cycas

(vii) The elementary processes of the telome concept is:

- (a) reduction (b) curvation (c) overtopping (d) all the above

(viii) Lang induced apogamy in _____.

- (a) club-mosses (b) mosses (c) ferns (d) horsetails

(ix) Largest ovules, trees and male gametes are found in _____.

- (a) algae (b) fungi (c) angiosperms (d) gymnosperms

(x) The gymnosperms pollination is effected by: _____.

- (a) wind (b) water (c) animals (d) insects

(1)

(P.T.O.)

Q-2 Answer the following (any ten). (20)

- (i) What is fragmentation?
- (ii) Write about-alginate.
- (iii) What are the various types of spores found in algae?
- (iv) Write the contributions of Prof. Ram Udar.
- (v) Write the structure and function of gemmacup.
- (vi) Explain-bryophytes as food.
- (vii) Draw a section of pinnule of Dryopteris through sorus.
- (viii) Describe the futile spike in Ophioglossum.
- (ix) Differentiate between homosporous and heterosporous.
- (x) Name the stages of embryogeny in gymnosperms.
- (xi) Write the economic importance of Gnetum.
- (xii) Define: monoxylous wood.

Q-3 Write notes on: (a) Heteromorphous life cycle in algae. (06)

(b) Filamentous form in algae. (04)

OR

Q-3 Write an essay on the origin and evolution of sexual reproduction in algae. (10)

Q-4 Write about: (a) ecology of bryophytes. (06)

(b) Distribution of bryophytes. (04)

OR

Q-4 Describe: (a) Vegetative reproduction in bryophyte. (06)

(b) Uses of Sphagnum and the peat. (04)

Q-5 What is apogamy? Describe the various factors that play an important role in the induction of apogamy. (10)

OR

Q-5 Describe the morphology and asexual reproduction in Ophioglossum. (10)

Q-6 Describe morphology of vegetative and reproductive organs of Gymnosperms. (10)

OR

Q-6 Write an essay on economic importance of Gymnosperms. (10)