



UNIVERSITY OF THE PUNJAB

B.A. / B.Sc. Part – I
Annual Examination - 2017

Roll No.

Subject: Botany-I
PAPER: A (Diversity of Plants)

TIME ALLOWED: 2 hrs. & 30 mins.
MAX. MARKS: 21

ATTEMPT THIS SECTION-II (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED

Note: Attempt any THREE questions. All questions carry equal marks. Draw neat and labeled diagrams along with captions where necessary.

SECTION-II (SUBJECTIVE)

- Q1: a) Give at least six general characters of viruses. (3)**
b) Write about life cycle of any smut causing fungus. (4)
- Q2. a) How bacteria reproduce? (3)**
b) Give general characters of vaucheriophyta. (4)
- Q3. a) Give most distinguished features of plasmodiophoromycota. (3)**
b) Explain sporophyte generation of Anthoceros. (4)
- Q4. a) Describe strobilus of selaginella. (3)**
b) Give primitive characters of cycas. (4)
- Q5: a) Explain anatomy of Ephedra root. (3)**
b) Write details of reproduction in Marsilia. (4)



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TIME ALLOWED: 30 mins.
MAX. MARKS: 14

ATTEMPT THIS SECTION-I (OBJECTIVE) ON THIS QUESTIONS SHEET ONLY

Note: Attempt all questions of this Section-I (Objective). Marks will be deducted for wrong spellings, erasing or overwriting.

SECTION-I (OBJECTIVE)

Q.1. Fill in the blanks with appropriate word(s) (8 marks)

- I. The nucleic acid of TMV is _____.
- II. The bacteria without flagella are called _____.
- III. The vascular tissue of plants is present in _____ generation only.
- IV. Volvox belongs to phylum _____.
- V. Body of vaucheria is multinucleate, aseptate, multicellular called _____.
- VI. _____ is smut causing fungus.
- VII. The body of fungus is called _____.
- VIII. Soridia are _____ reproductive body of lichen.
- IX. In Porella, spores germinate to produce _____ generation.
- X. Group of sporangia in psilotum is called _____.
- XI. The fruiting body of Marsilia is called _____.
- XII. In selaginella, two types of spores are produce in same _____.
- XIII. In cycas _____ gametes are motile.
- XIV. Amongst Cycas, Pinus and Ephedra, most advance is _____.
- XV. In atrachaeophyta, plants without _____ are included.
- XVI. An _____ is lower swollen portion of carpel.

Q.2. Please select True or False statement by encircling "T" or "F". (3 marks)

- | | | |
|---|---|---|
| I. In all viruses genetic material is DNA. | T | F |
| II. In Algae zygote develops into gametophyte. | T | F |
| III. Fungi generally do not have isomorphic alternation of generations. | T | F |
| IV. Meristems are found in Anthoceros. | T | F |
| V. Ephedra is fruit producing gymnosperm, so very advance. | T | F |
| VI. Ferns are true plants | T | F |

Q.3. Please encircle the most appropriate answer from given options (a,b,c,d) (3 marks)

- I. Bacteria with one polar flagellum is:
(a) A trichous (b) Mono trichous (c) Lophotrichous (d) Monolophotrichous
- II. All of the following characters are true for algae except one:
(a) Rhizoids (b) Zygote (c) Roots (d) Gametes
- III. In basidiomycota sexual spores are:
(a) Basidiocarp (b) Conidia (c) Basidium (d) Basidiospore
- IV. Equisetum is:
(a) Homosporous (b) Disporous (c) Heterosporous (d) Asporous
- V. The embryo in gymnosperm is:
(a) Haploid (b) Triploid (c) Diploid (d) Absent
- VI. In angiosperms seed develop from:
(a) Ovary (b) Ovule (c) Carpel (d) Embryo Sac



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TIME ALLOWED: 2 hrs. & 30 mins.

PAPER: B (Plant Systematic Anatomy and Development) MAX. MARKS: 21

USE SEPARATE ANSWER SHEET FOR SECTION-II

Section-II (Subjective Type)

Note: Attempt any three questions. All questions carry equal marks. Draw neat and labeled diagrams along with captions where necessary. (3x7=21)

- Q. 4: (a) Write a note on Schizocarpic fruits. (4)
(b) Differentiate between Uniparous Cyme and Biparous Cyme (3)
- Q. 5: (a) Describe various types of Aerial stem. (4)
(b) Write a note on Parenchyma tissues. (3)
- Q. 6: (a) Describe Engler and Prantle system of classification. (4)
(b) Define the following terms (3)
i. Perennial ii. Polygamous iii. Gamosepalous
- Q. 7: (a) What is placentation? Describe its different types. (1+3)
(b) Write a note on compound inflorescence. (3)
- Q. 8: (a) Describe the general characters and economic importance of family Solanaceae. (4)
(b) Write 3 botanical names of family Solanaceae. (3)



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Section-I (Objective Type)

Note: Attempt all questions of this section in the first 30 minutes and return the script to the examiner. Marks may be deducted for wrong spellings, erasing or overwriting.

Q. 1 Fill in the blanks (8 marks)

- In sweet potato type of roots are called _____.
- The plants which live for two growing seasons are called _____.
- In sugarcane type of roots are called _____.
- The leaves which form part of flower are called _____.
- The symmetry in which flower is cut in two equal halves in more than one plane is called _____.
- The type of placentation in which single ovule attached to base of ovary is called _____.
- The flowers develop in Basipetal succession in inflorescence is called _____.
- The fruit of Guava is called _____.
- Sunflower belongs to family _____.
- The family Leguminosae is also known as _____.
- Cyathium inflorescence is a character of family _____.
- The middle lamella of cell wall is mainly composed of _____.
- The Vascular bundles are scattered in the stem of _____.
- The calyx and corolla are collectively known as _____.
- The pits in which secondary wall arches over the cavity of pits are called _____.
- The thin walled simple tissues are called _____.

Q. 2 True or False statements (3 marks)

Please select True or False statement by encircling "T" or "F" as appropriate.

- | | | |
|--|---|---|
| i. Verticillaster inflorescence is found in Ocimum | T | F |
| ii. The Fibrous tap roots are found in pea | T | F |
| iii. <i>Avena sativa</i> is a member of family Euphorbiaceae | T | F |
| iv. Pinnate compound leaf is found in Rose | T | F |
| v. Fruit of Orange is drupe | T | F |
| vi. Parenchyma is a complex tissue | T | F |

Q. 3 Multiple Choice Questions (3 marks)

Please encircle the appropriate letter (a, b, c or d) of the correct answer.

- Stem is reduced in
a. Grasses b. Sweet Potato c. Turnip d. None
- Meristem is found in
a. Cambium b. Xylem c. Phloem d. Cortex
- Bracket in wheat is called
a. glumes b. spathe c. involucre d. None
- Caryopsis fruit is found in family:
a. Cucurbitaceae b. Euphorbiaceae c. Poaceae d. Labiatae
- Simple Umbel is present in:
a. Sunflower b. Cherry c. Mulberry d. Apple
- In family Poaceae Gynoecium is:
a. Monocarpellary b. Bicarpellary c. Polycarpellary d. None