



UNIVERSITY OF THE PUNJAB

Roll No. ....

B.A. / B.Sc. Part - I

Annual Examination - 2018

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

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 A. Fill in the blanks with appropriate word(s) (08 Marks)

- i. Tobacco Mosaic is caused by ...
ii. The cube of eight (8) cocci is ...
iii. In Laminaria two types i.e. unilocular and ... sporangia are produced.
iv. Most primitive plants in five kingdom system are ...
v. When we observe the pinnularia from band (cingulam) side, it is ... view.
vi. ... is binucleate spore in the life cycle of Puccinia.
vii. Alternaria solani causes ... in potato.
viii. ... are formed by the symbiotic association between algae and fungi.
ix. The genus ... belongs to Bryopsida (mosses).
x. Dominant generation in Psilotum is ...
xi. Two types of leaves in Selaginella are arranged in ... rows.
xii. The type of leaves in Equisetum are ...
xiii. The thick walled region in the sporangia of Adiantum is ...
xiv. Marsilia generally grows in ... habitat.
xv. Microsporophylls are aggregated to form ... cones in cycus.
xvi. Petals of flowers are modified ...

B. Please select true or False statements by encircling "T" or "F" (03 Marks)

- i. Capsid of virus contains histone proteins T F
ii. Algae have simple roots T F
iii. Agaricus is Mushroom T F
iv. Bryophytes are vascular plants T F
v. Ripened Ovule in pinus is seed T F
vi. Embryo sac in angiosperm is triploid T F

C. Please encircle the most appropriate answer from given options. (03 Marks)

- i. The substance present in cell wall of gram -ve bacteria is:
a). Cellulose b). Chitin c). Peptidoglycan d). Lignin
ii. Pyrenoids in Algae are found in:
a). Nucleus b). Chloroplast c). Mitochondria d). Vacuole
iii. Alternaria is a / an:
a). Fungus b). Alga c). Lichen d). Bacteria
iv. An example of Fern is:
a). Vaucharia b). anthocenose c). Polypodium d). Rose
v. Xylem in Gymnosperms does not contain:
a). Vessels b). Tracheids c). Sieve element d). Fibres
vi. Egg cell in Angiosperm is present in:
a). Anther b). Ovule c). Fruit d). Corolla



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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)**

- Q.2 a). How bacteria can be classified on Morphological bases? (03 Marks)  
b). Explain Structure of Pinnularia. (04 Marks)
- Q.3 a). What is the importance of viruses? (02 Marks)  
b). Explain structure and reproduction in Penecilium (05 Marks)
- Q.4 a). Give morphology of Porella gametophyte. (03 Marks)  
b). Give internal structure of Adiantum stem. (04 Marks)
- Q.5 a). What are general characters of Lycopsida? (03 Marks)  
b). Explain female cone of pinus. (04 Marks)
- Q.6 a). Explain morphology of cone of Ephidra. (04 Marks)  
b). What is the concept of evolution in plants. (03 Marks)



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TIME ALLOWED: 30 mins.

PAPER: B (Plant Systematic Anatomy and Development) MAX. MARKS: 14

## 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)

- i. The inflorescence in onion is called \_\_\_\_\_.
- ii. The small dry bracts in wheat are called \_\_\_\_\_.
- iii. In staminate flowers only \_\_\_\_\_ are present.
- iv. Lignin consists of \_\_\_\_\_ units.
- v. Lettuce belongs to family \_\_\_\_\_.
- vi. The Poaceae is commonly known as \_\_\_\_\_.
- vii. *Cassia fistula* belongs to family \_\_\_\_\_.
- viii. Plants which live for two growing seasons are called \_\_\_\_\_.
- ix. In hypogynous flower the ovary is \_\_\_\_\_.
- x. Verticillaster inflorescence is found in family \_\_\_\_\_.
- xi. The Phellögen is also known as \_\_\_\_\_.
- xii. The fruit of mustard is known as \_\_\_\_\_.
- xiii. In Asparagus the type of root is called \_\_\_\_\_.
- xiv. The type of stem in Jasmine is known as \_\_\_\_\_.
- xv. The lignified tissues which lack protoplast at maturity are called \_\_\_\_\_.
- xvi. The type of fruit in tomato is called \_\_\_\_\_.

### Q. 2 True or False statements (3 marks)

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

- |  |   |   |
|--|---|---|
| i. Colocacia is a Corn                               | T | F |
| ii. The Spiral type of leaves are present in mustard | T | F |
| iii. Sclerenchyma is a complex tissue                | T | F |
| iv. Liliaceae is a dicot family                      | T | F |
| v. Syconus fruit is found in Banyan                  | T | F |
| vi. Basal placentation is found in potato.           | T | F |

### Q. 3 Multiple Choice Questions (3 marks)

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

- i. Which is a perennial plant.  
a. Wheat                      b. Rice                      c. Tomato                      d. Mango
- ii. Mint is a  
a. Stolon                      b. Runner                      c. Sucker                      d. Offset
- iii. *Oryza sativa* belongs to family  
a. Poaceae                      b. Asteraceae                      c. Rutaceae                      d. Solanaceae
- iv. Which is a compound tissue  
a. parenchyma                      b. Xylem                      c. Sclerenchyma                      d. Collenchyma
- v. Which is a monocot family  
a. Solanaceae                      b. Lamiaceae                      c. Rutaceae                      d. Liliaceae
- vi. Fruit of mango is  
a. Drupe                      b. Berry                      c. Pome                      d. Capsule



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**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) Describe different type of Achenial fruits (4)  
(b) Define the following terms: (3)  
i. Sessile ii. Primary growth iii. Pistillate
- Q. 5: (a) Describe different types of Cymose inflorescence (4)  
(b) Describe the chemical composition of cell wall. (3)
- Q. 6: Describe different types of underground stem. (7)
- Q. 7: (a) Write a short note on Xylum tissues. (4)  
(b) Describe different types of Adventitious roots. (3)
- Q. 8: (a) Describe the general characters and economic importance of family Brassicaceae (Cruciferae) (4)  
(b) Write 3 botanical names of family Brassicaceae (Cruciferae) (3)