



UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program : First Semester – 2020

Paper: Botany-I (Plant Diversity)

Course Code: BOT-101Part – I (Compulsory)

Time: 15Min. Marks: 10

Roll No. in Fig.

Roll No. in Words.

Attempt this Paper on this Question Sheet only.

Division of marks is given in front of each question.

This Paper will be collected back after expiry of time limit mentioned above.

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Signature of Supdt.:

Q.1. Encircle the right answer cutting and overwriting is not allowed. (10x1=10)

1. In *Agaricus*, some remnants of the inner veil remain attached to the stipe in the form of a ring called -----.
(a). Volva (b). Annulus
(c). Stipe (d). none of these
2. The ability to switch between the yeast-like and filamentous state is termed as -----.
(a). Dimorphism (b). Karyogamy
(c). Plasmogamy (d). none of these
3. The archegonial neck of ----- is longest among gymnosperms.
(a). *Ephedra* (b). *Cycas*
(c). *Pinus* (d). none of these
4. In rust fungi, the site of karyogamy and meiosis is -----.
(a). basidiospore (b). teliospore
(c). parasitic mycelium (d). none of these
5. In *Polysiphonia*, the life cycle is -----.
(a). triphasic (b). haplontic
(c). monophasic (d). none of these
6. In a heteroecious and macrocyclic rust fungus, spore stages ----- are produced on alternate host.
(a). II, III (b). 0, I
(c). I, II (d). none of these
7. ----- is the variation of Protostele in which core is lobed.
(a). Haplostele (b). Actinostele
(c). Plectostele (d). none of these
8. In thallus of *Anthoceros*, the colonies of ----- are found in the mucilage cavities.
(a). *Nostoc* (b). *Anabaena*
(c). *Equisetum* (d). none of these
9. *Pinnularia* pant is shaped like elongate box ensheathed in a siliceous wall often called a -----.
(a). valve (b). frustule
(C). silica (d). none of these
10. ----- are those bacteria which have multiple flagella at one polar end or multiple flagella at one point.
(a). Amphitrichous (b). Peritrichous
(c). Lophotrichous (d). none of these



ATTEMPT THIS (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED

Q.2. Give short answers of the following:

(10x2=20)

1. Define lichens? What are their different types on the basis of thalli?
2. What are xerophytic adaptations in *Cycas*. Discuss.
3. What is Siphonostele? What are its different types?
4. Why *Ephedra* plant is known as a connecting link between angiosperms and gymnosperms?
5. What is Tobacco Mosaic Virus (TMV)? Draw its structure.
6. Differentiate between TRANSDUCTION and TRANSFORMATION.
7. Differentiate scalariform conjugation and Lateral conjugation in *Spirogyra*?
8. How Clump formation occurs in *Ectocarpus*?
9. What are different types of bacteria on the basis of flagellation?
10. What is meant by Fossils? How Fossils are studied?

Q.3. Give brief answers of the followings.

(3x10=30)

1. a). Draw and label capsule of sporophyte of *Funaria*. (05)
b). What are primitive features of *Cycas*? Discuss in detail. (05)
2. Draw and describe life cycle of Smut fungi. (10)
3. Differentiate Seed habit and Heterospory? How does Heterospory lead to seed? (10)