

Section-A

(Multiple Choice Question (MCQ's))

- Q.1 Choose the correct answer for each from the given options:**
- (i) Closely related taxonomic families are grouped together into:
 (a) Species (b) Genus (c) Order (d) Class
- (ii) "Capsid" is made up of protein sub-units known as:
 (a) Capsidomers (b) Capsomers (c) Capomers (d) Protomers
- (iii) Most bacterial cell-wall has:
 (a) Peptigo-Glycan (b) Peptido-Glycan (c) Peptide-Glycan
 (d) Septido-Glycan
- (iv) Example of symbiotic bacteria:
 (a) Rhizobium radiculicola (b) Pnerumo coccus
 (c) Vibrio cholera (d) Pisum sativum
- (v) The most distinguishing character between Algae and Plants:
 (a) Cell-wall (b) Chlorophyll-b (c) Formation of Embryos
 (d) Habitat
- (vi) Aspergillus flavus produce carcinogenic toxin called:
 (a) Aflatoxin (b) Neurotoxin (c) Haemoatoxin (d) Mycotoxin
- (vii) Taxonomic family in which ovary is obliquely placed:
 (a) Solanaceae (b) Rosaceae (c) Poaceae (d) Caesalpinaceae
- (viii) "Nucellus" is the part of:
 (a) Spore (b) Gamete (c) Ovule (d) None of these
- (ix) ATP synthesis in the presence of light is called:
 (a) Oxidative phosphorylation (b) Reductive phosphorylation
 (c) Photo-phosphorylation (d) Hydro-phosphorylation

Section-B

(Short Answer)

Note: Answer any TEN of the following questions. Each question carries 02 marks.

- Q.2 Why CYANO-BACTERIA were previously called BLUE-GREEN ALGAE and now cyano-bacteria?
- Q.3 Why slime and water-molds are not included in Kingdom Fungi, when they resemble with fungi?
- Q.4 What are main stages of TWO KINGDOM SYSTEM?
- Q.5 Write down the names of eight (08) Parasitic and Carnivorous plants all together.
- Q.6 Why ATP formation during Glycolysis is called Substrate level phosphorylation?
- Q.7 Why stomata open during day and close at night?
- Q.8 Define any TWO of the following:
 Parasexuality Aplanospore Antenna-Complex - Translocation
- Q.9 Distinguish between any ONE of the following in tabulated form.
 Virus and Viroid Ulva sporophyte and Ulva Gametophyte
- Q.10 Give floral formula of family Solanaceae and Poaceae.
- Q.11 Why Protozoa is considered as diverse group of living organisms?
- Q.12 How flow of energy in ecosystem is uni-directional?
- Q.13 Why MYCORRHIZAE are important for higher plants?
- Q.14 Why protoplasm shrinks during plasmolysis and expands during Deplasmolysis?

Section-C

(Descriptive Answer)

Note: Answer any TWO of the following questions. Each question carries 07 marks.

- Q.15 What is Bacteriophage? How does it reproduce completely within the host cell? Support your answer with neat and labeled diagram.
- Q.16 What are Angiosperm? Describe the floral characters and economic importance of family Fabaceae?
- Q.17 What is Photorespiration? Why it occurs in plants? What happens to plants due to photorespiration? How plants adapt themselves to avoid photorespiration?