

Time: 15 Minutes

Max. Marks: 09

SECTION "A" (MULTIPLE CHOICE QUESTION)

1. Choose the correct answer for each from the given options:
 - (i) Flow of energy in an ecosystem is:
 - Cyclic • Non-cyclic • Uni-directional • Multi-directional
 - (ii) This is not a member of basidiomycota:
 - Jelly Fungi • Puffballs • Mushrooms • Neurospora
 - (iii) Excess water in plants is forced out in the form of droplets through:
 - Cuticle • Hydathodes • Stomata • Lenticels
 - (iv) Family in which ovary is obliquely placed is:
 - Rosaceae • Solanaceae • Poaceae • Caesalpinaceae
 - (v) This protein is present in microtubules:
 - Actin • Tubulin • Keratin • Myosin
 - (vi) A chromosome with equal arms is:
 - Acrocentric • Telocentric • Submetacentric • Metacentric
 - (vii) By this process pyruvate convert into three molecules of CO₂:
 - C₃ cycle • C₄ cycle • Glycolysis • Kreb cycle
 - (viii) Parasexuality occurs in:
 - Basidiomycota • Deuteromycota • Zygomycota
 - (ix) Late blight of potato is caused by:
 - Yeast • Puccinia • Ustilago • Phytophthora
 - (x) During this stage bacteria grow & multiply rapidly:
 - LAG phase • LOG phase
 - Stationary phase • Decline phase
 - (xi) Mad cow disease is caused by:
 - Virus • Viroid • Prion • Bacteria
 - (xii) Enzyme responsible for the Carboxylation in Calvin Benson cycle is:
 - Rubisco • Pepsin • Peptide • Isomerase
 - (xiii) Dark reaction of Photosynthesis occur in:
 - Granum • Mitochondria • Stroma • Ribosome
 - (xiv) In woody stem transpiration takes place through:
 - Stomata • Lenticels • Cuticle • Hydathodes
 - (xv) Bacteria which can only survive in the presence of oxygen are:
 - Obligate aerobes • Facultative aerobes
 - Obligate anaerobes • Facultative anaerobes
 - (xvi) Encephalitis and dengue fever are caused by:
 - Rhinoviruses • Paramyxoviruses
 - Rhabdoviruses • Arboviruses
 - (xvii) Aspergillus flavus produce this carcinogenic toxin:
 - Aflatoxin • Mycotoxin
 - Neuotoxin • Haematoxin
 - (xviii) In chlorella reproduction takes place by means of:
 - Zoospores • Gametes
 - Conidia • Aplanospores

Time: 1 Hours 45 Minutes

Marks: 36

SECTION 'B' (SHORT-ANSWER QUESTIONS) (22)

NOTE: Answer 11 questions from this section.

- 2.(i) Who proposed cell theory? State postulates of the theory.
- (ii) Write note on Mitochondria or Plastids.
- (iii) State the role of water or chlorophyll in Photosynthesis.
- (iv) Name five Kingdoms proposed by Whittaker.
- (v) Describe the importance and deficiency symptoms of nitrogen in Plants.
- (vi) State the structure of Rhynia Plant or write note on Lichen.
- (vii) Distinguish between any one of the following:
 - * Aerobic Respiration and Anaerobic Respiration
 - * Angiosperm and Gymnosperm
- (viii) Write note on transmission of HIV.
- (ix) State the economic importance of family poaceae.
- (x) Write down the botanical names of any four of the following:
 - (a) Rice (b) Potato (c) Tomato (d) Wheat (e) Tamarind
- (xi) State four important events take place during light dependent reaction of photosynthesis.
- (xii) Explain Source – Sink Movement.
- (xiii) Draw a labeled diagram of any one of the following:
 - (a) L.S. of Male Cone of Pinus
 - (b) L.S. of Ovule of an angiospermic plant
- (xiv) How Bacteria are classified on the basis of flagella.
- (xv) Draw an outline of classification of Kingdom Plantae.
- (xvi) Define any Two of the following:
 - (a) Plasmolysis (b) Diffusion
 - (c) Water Potential (d) Imbibition

SECTION 'C' (DETAILED- ANSWER QUESTIONS)

NOTE: Answer 2 question from this section(14)

3. Describe lytic cycle of Bacteriophage and distinguish it from Lysogenic cycle.
- OR Describe the structure and reproduction in Ulva with reference to Isomorphic alternation of generation.
4. Describe floral characters, floral formula, floral diagram & economic importance of family Rosaceae of Fabaceae.
5. Describe the process of Glycolysis. Also draw flowchart
- OR Describe the mechanism of Ascent of Sap.