

- (xiii) In the lungs of birds instead of alveoli tiny thin walled ducts are present which are called:
(a) Tracheoles (b) Bronchioles (c) Air sacs (d) Para bronchi
- (xiv) The pathway involving system of adjacent cell walls which is continuous throughout the plant roots:
(a) Casparian strip (b) Apoplast (c) Symplast (d) Plasmodesmata
- (xv) Haemoglobin molecule in most cases, does not have B-chain in it, instead F chain is present
(a) Oedema (b) Leukemia (c) Thrombosis (d) Thalassaemia
- (xvi) The megasporophylls bearing ovules are not folded and joined at the margins to form an ovary:
(a) Filicineae (b) Monocotyledonae
(c) Dicotyledonae (d) Gymnospermae
- (xvii) Rubisco fixes oxygen instead of CO₂ :
(a) Glycolysis (b) Photorespiration (c) Krebs' cycle (d) Respiration

MODEL PAPER “BIOLOGY”
Intermediate Part-I Examination, 2008 & Onward

SUBJECTIVE

Time: 2:40Hours

Marks: 68

Note: - Attempt any TWENTY TWO (22) questions from Section -I and any THREE questions form Section-II

SECTION -I

Q.No.1. Attempt any TWENTY TWO (22) questions.

(22x2)=44

- (i) Differentiate between deductive reasoning and inductive reasoning.
- (ii) How is a peptide bond formed?
- (iii) How does enzyme concentration affect the rate of reaction?
- (iv) What are polysomes?
- (v) Compare microtubules with micro filaments.
- (vi) What do you know about the capsid of a virus?
- (vii) List the different phases in bacterial growth curve.
- (viii) What are the distinguishing characters of kingdom proctista?
- (ix) Explain what is a mycelium?
- (x) Give a description of conidia of Penicillium.
- (xi) List four adaptations of bryophytes to terrestrial environment.
- (xii) Explain the evolution of megaphyll.
- (xiii) Give four differences between Dicots and Monocots.
- (xiv) Explain polymorphism in coelenterates.
- (xv) Differentiate between polychaeta and oligochaeta.
- (xvi) What is the importance of Archaeopteryx?
- (xvii) What is meant by compensation point?
- (xviii) What is the role of gastrin?
- (xix) Compare aerobic and anaerobic respiration.
- (xx) What is meant by preparatory and oxidative phase of glycolysis?
- (xxi) Name the parts of three main divisions of the digestive system of cockroach.
- (xxii) How is food swallowed by you?
- (xxiii) Differentiate between appendix and appendicitis?
- (xxiv) Air is better respiratory medium than water. Explain.
- (xxv) How does gaseous exchange occur in frog?
- (xxvi) What is diving reflex in cetaceans?
- (xxvii) What is plasmolysis?
- (xxviii) What are the characteristics of circulatory system of a multicellular animal?

- (xxix) Compare monocytes with lymphocytes.
- (xxx) What is electrocardiogram?
- (xxxii) What are the differences between gymnosperms and angiosperms?
- (xxxii) Compare ascus with a basidium.
- (xxxiii) Draw a labelled diagram of HIV.

SECTION -II

Note: - Attempt any THREE questions.

(8x3)=24

- Q.No.2.** What are amino acids? Describe four levels of proteins organization.
How can the action of catalytic proteins be inhibited? **(2+4+2)**
- Q.No.3.** Define alternation of generations. How has seed been evolved? **(1+7)**
- Q.No.4.** Narrate the general characters of Arthropods. What is the importance
of chitin in their life? **(7+1)**
- Q.No.5.** Describe light dependent reactions of photosynthesis. **8**
- Q.No.6.** Discuss the evolution of vertebrate heart. **8**