

Section-A(MCQ's)

Q.1 Choose the Correct Answers of the following:

- (i) The process of clotting of blood involves:
 (a) RBCs (b) Platelets (c) WBCs (d) Both (b) and (c)
- (ii) Filaments present in Flagella and Cilia are:
 (a) Microfilaments (b) Microtubules (c) Intermediate filaments
 (d) Microvilli
- (iii) Which of the following is not a sub group of Chordata?
 (a) Cephalochordata (b) Urochordata (c) Hemichordata
 (d) None of these
- (iv) Inactive Trypsinogen is changed to Trypsin by _____.
 (a) Gastrin (b) Enterokinase (c) Secretin (d) None of these
- (v) This part of enzyme is an organic molecules, about 1% of entire enzyme and easily separable.
 (a) Co-enzyme (b) Apoenzyme (c) Activator (d) Prosthetic group
- (vi) The arched or dome-shaped partition between the thorax and abdomen is:-
 (a) Diaphragm (b) Septum (c) Peritoneum (d) Pericardium
- (vii) Which one of the following is correct being a double membrane organelle?
 (a) Peroxisome and Lysosome (b) Chloroplast and Lysosome
 (c) Nucleus and Chloroplast (d) Nucleus and Lysosome
- (viii) Glycolipids and Lipoproteins are important components of:
 (a) Proteins (b) Nucleic acids (c) Bone marrow (d) Cellular membrane

Section-B (Short Answer)

Note: Answer any TEN of the following questions. Question No.2 is compulsory which carries 03 marks and other all questions carry 02 marks.

- Q.2 Distinguish any ONE of the following.
 (i) Nucleus and Nucleolus
 (ii) Urochordate and Cephalochordata
- Q.3 What is Fluid Mosaic Model?
- Q.4 In which type of cells smooth endoplasmic reticulum is found mostly and what are its functions?
- Q.5 On what basis kingdom animalia is classified into two sub-kingdoms? Name these sub-kingdoms and the phyla included in them.
- Q.6 What is INNATE IMMUNITY? What are its characteristic features?
- Q.7 Define any TWO of the following:
 (i) Biological control (ii) Hydrolysis
 (iii) Macrophage (iv) Pinocytosis
- Q.8 How complete ventilation is achieved by birds?
- Q.9 At a certain high substrate concentration the reaction of the enzyme slows down or stops, why?
- Q.10 Describe the groups of Proteins associated with Plasma membrane.
- Q.11 How the lining of mid gut in cockroach is protected from hard particles?
- Q.12 Where are SA node, AV node, Purkinje fibres and "Bundles of His" located in the heart and what functions they performed?
- Q.13 What do you understand by the terms, anorexia nervosa and bulimia nervosa?
- Q.14 Amphibians are unsuccessful animals. Explain.

Section-C**(Descriptive Answer)**

Note: Answer any ONE of the following questions in detail which carries 13 marks.

Draw labeled diagrams where necessary.

- Q.15 (a) Write down the diagnostic features of phylum ARTHROPODA and three of its classes. Give examples.
 (b) What is Tracheal system? Explain with the help of suitable diagram.
- Q.16 (a) Explain the internal structure of human heart using illustration.
 (b) What is HOLOZOIC NUTRITION? Describe the characteristic processes involved in Holozoic Nutrition giving the example of planaria.