INTERNATIONAL INDIAN SCHOOL DAMMAM

FIRST TERMINAL EXAMINATION - JULY- 2017

XI Subj: **BIOLOGY**

Time: 3 hrs. Max. Marks: 70

SET A

General Instructions:

i) All questions are compulsory.
ii) The question paper consists of three sections A, B, C,D and E. Section A contains 5 questions of 1 mark each, Section B is of 5 questions of 2 marks each, Section C has 12 questions of 3 marks each, Section D has 1 question of 4marks whereas Section E is of 3 questions of 5 marks each.
iii) There is no overall choice. However, an internal choice has been provided in one question of 2 marks, one question of 3 marks and all the three questions of 5 marks weightage. A student has to attempt only one of the alternatives in such questions.
iv) Wherever necessary, the diagrams drawn should be neat and properly labeled.

SECTION A (1x 5 = 5)

Q: 1 Name the complex polysaccharide found in the exoskeleton of arthropods.

Q: 2 What is tidal volume?

Q: 3 What is interkinesis?

Q: 4 What is the function of nucleolus?

Q: 5 What are the basic layers of the wall of alimentary canal?

SECTION B (2x 5 =10)

Q: 6 Differentiate between pili and fimbriae of bacterial cells.

Q: 7 What is the role of carbonic anhydrase in humans? Where is it operative?

Q: 8 Describe the effect of water on photosynthesis.

OR

There is a clear division of labour within chloroplast. Justify

Q: 9 Fill in the blanks:

SUBSTRATE	ENZYME	PRODUCTS
Nucleotides	Nucleotidases	A
Dipeptides	Dipeptidases	B
Di and monoglycerides	C	Fatty acids + Glycerol
Maltose	maltase	D

Q:10 Explain inspiration in humans.

SECTION C (3x 12 = 36)

Q: 11 What are co-factors? Give a brief account of different types of cofactors.

Q:12 Describe non cyclic photophosphorylation in plants with the help of schematic representation.

Q:13 a) What is a monograph?

b) Illustrate taxonomical heirarchy with the help of examples such as "mango' and 'housefly'.

Q:14 Photorespiration is a wasteful process. Justify.

Q: 15 a) What is a mesosome in a prokaryotic cell?

b) Describe the fluid mosaic model of plasma membrane. Mention its importance

Q: 16 Name the period between two sucessive mitotic divisions. Describe.

Q: 17 Draw a neat labeled diagram of the duct system of liver, gall bladder and pancreas.

Q: 18 How is respiration regulated in humans?

Q: 19 Describe the Watson & Crick model of DNA structure with the help of diagram.

Q:20 a) Describe the process of digestion of protein in stomach.

b) Mention the role of HCL in digestion.

Q:21 a) What are plasmids? What is the advantage of them to bacteria?

b) Draw a neat labeled diagram of chloroplast

Q:22 Differentiate between mitochondria and chloroplst.

OR

Name the following:

a) Disc shaped sacs in Golgi apparatus.
b) Primary constriction present in chromosome.
c) Space between outer and inner membrane of nucleus.
d) The membrane which surrounds the vacuole in cell.
e) The layer which holds or glues the different neighbouring plant cells.
f) Chain formed by a single mRNA and several ribosomes in prokaryotes.

SECTION D (4 x 1 = 4)

Q:23 In the biological laboratory Neethu found a file on which it was written 'Herbarium'. She turned the pages of the file and saw on each page some varieties of dried leaves and flowers were pasted. She took that file and asked her teacher about some confusions.

a) What is herbarium?
b) Mention the advantage of making that file.
c) Mention the criteria of arrangement and labeling of herbarium sheets.
d) What values are shown by Neethu?

SECTION E (5 x 3 = 15)

Q:24 a) Describe Hatch & Slack pathway with a diagrammatic represntation.

b) State 'Blackman's law' of limiting factors.

OR

a) Describe calvin cycle with the help of schematic diagram.
b) What are acessory pigments? Mention its role.

Q:25 What are proteins? Explain the structure of proteins with the help of diagrams.

OR

a) Describe the nature of enzyme action.
b) Describe the influence of pH and temperature on enzyme action. (3 + 2)

Q: 26 Describe ProphaseI in detail.

OR

Describe mitosis with the help of diagrams.