



Quality Checkers
Only way to fulfill your dreams

XI-SCI : Biology
Biomolecules,

DATE:

TIME: 1 hour 30
minutes

MARKS: 25

SEAT NO:

--	--	--	--	--	--

Note:-

1. All Questions are compulsory.
2. Numbers on the right indicate full marks.

Section A

Q.1 Select and write the correct answer.

(4)

1. The simplest monosaccharide made up of three carbon atoms amongst the following is
A) erythrose B) glucose
C) glyceraldehyde D) ribose
2. When inorganic ions or metallo-organic molecules bind to apoenzyme, they together form
A) isoenzyme B) holoenzyme
C) denatured enzyme D) none of these
3. RNA is genetic material in
A) bacteria B) cyanobacteria
C) bacteriophage D) plant virus
4. The covalent bond that joins the monosaccharide units is called
A) peptide bond B) glycosidic bond
C) phosphodiester bond D) hydrogen bond

Q.2 Answer the following.

(3)

1. Define Substrate.
2. What is a cistron?
3. What is a prosthetic group?

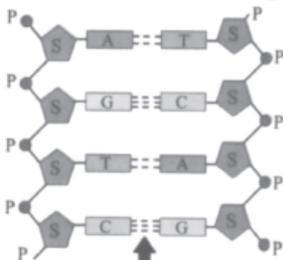
Section B
Attempt any Four

Q.3 Why do high cholesterol level in the blood cause heart diseases?

(2)

Q.4 Observe the following figure and name the type of bond shown by arrow in the structure.

(2)



Q.5 Write short note on polysaccharides.

(2)

Q.6 Match the following items given in column I and II. (2)

Column I

Column II

- | | |
|------------------------|-------------------------|
| i. RNA | a. Induced fit model |
| ii. Yam plant | b. Flax seeds |
| iii. Koshland | c. Hydrolase |
| iv. Omega-3-fatty acid | d. Uracil |
| v. Sucrase | e. Anti-fertility pills |

Q.7 List the important properties of enzymes. (2)

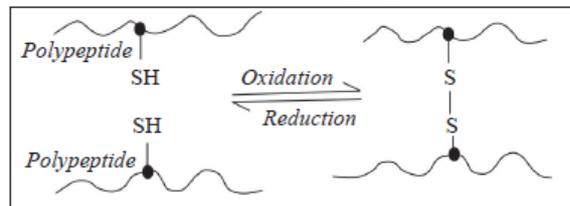
Q.8 What is RNA? Enlist types of RNA. (2)

Section C
Attempt any Two

Q.9 Explain the secondary structure of protein with examples. (3)

Q.10 Sketch and label.
Single strand of RNA (3)

Q.11 Answer the questions with reference to the following figure. (3)



1. Name the type of bond formed between two polypeptides.
2. Which amino acid is involved in the formation of such bond?
3. Amongst I, II, III and IV structural level of protein, which level of structure includes such bond?

Section D
Attempt any One

Q.12 What are nucleic acids? Enlist the point of differences among DNA and RNA. (4)

Q.13 Enlist the natural sources, structural units and functions of the following polysaccharides. (4)
(a) Starch (b) Cellulose (c) Glycogen