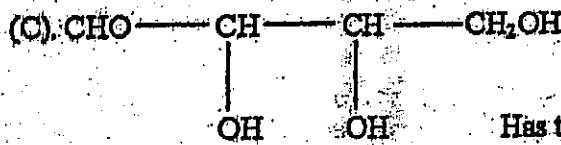
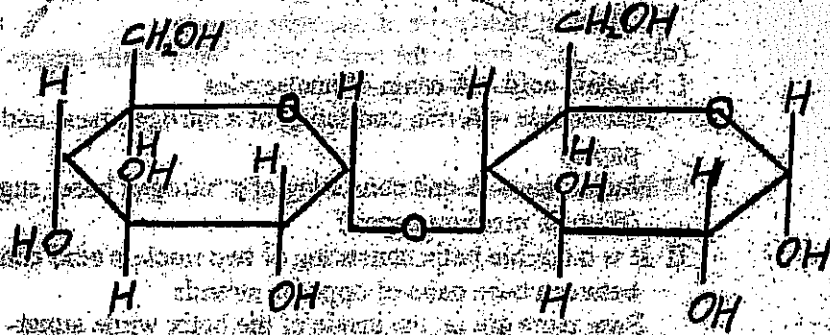


**CHU1140 BIOPHYSICS AND BIO CHEMISTRY, LEVEL-3,  
CONTINUOUS ASSESSMENT TEST 1(NBT) ANSWER SCRIPT**

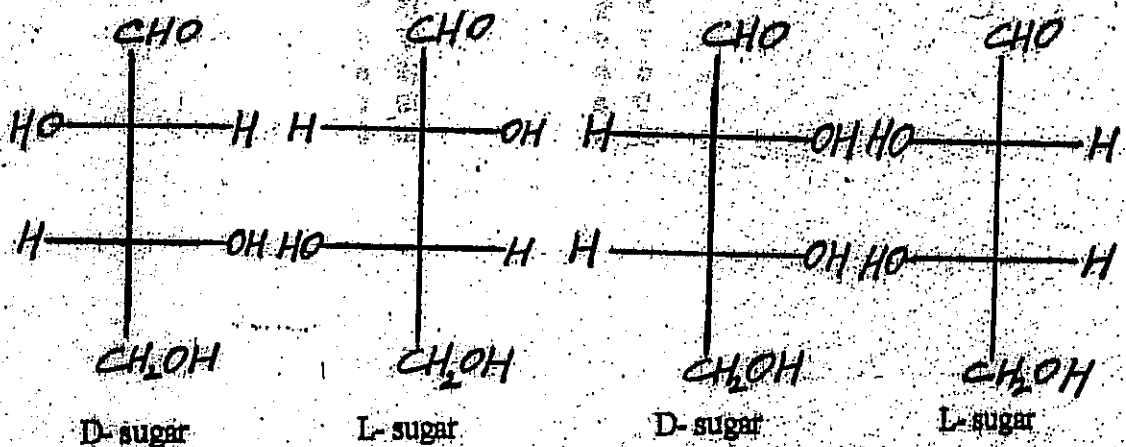
01. (a)

- I. Sugars with cyclic hemiacetal or hemiketal forms are in equilibrium with open chain having aldehyde group. This aldehyde group can be oxidized by Benedict's or Tollens' reagents. Or sugars that can be oxidized by  $\text{Ag}^+$  or  $\text{Cu}^+$ , called reducing sugars.
- II. Maltose has a cyclic hemiacetal in the right hand side of the ring. This will be in equilibrium with open chain aldehyde group. It can act as an oxidizing agent.
- III. Both Maltose and cellobiose are consisted of two glucopyranose units. But Maltose has  $\alpha(1 \rightarrow 4)$  glycosidic linkages where as cellobiose has  $\beta(1 \rightarrow 4)$  glycosidic linkages. Maltose can be hydrolyzed by Maltase cellobiose cannot be hydrolyzed by maltase.

(b)



Has two asymmetric carbons, it has four isomers.



II. Sodium salt of the fatty acid alcohol or glycerol

(b)

I. Serinyl- Valamyl- Glutamyl- Alanyl- Prolinyl- threoninyl- Tyrosinyl

II. N-terminal

C-terminal

III. Six peptide bonds are present

(c)

I. Nucleic acid - A chain of nucleotides

Nucleoside - A unit consisting of a nitrogen base and sugar unit. (English medium paper)

Nucleotide - A unit consisting of a nitrogen base, sugar unit and phosphate group. (Sinhala medium paper)

II. It is a double helix consisting of two nucleic acid chain held together by H-bonds between base pairs of opposite strands

Base pairs are on the inside of the helix while sugar-phosphate backbone is on the side.

Multiple choice questions - answers

- |       |       |
|-------|-------|
| 1. b  | 11. c |
| 2. b  | 12. d |
| 3. c  | 13. b |
| 4. a  | 14. b |
| 5. c  | 15. a |
| 6. b  | 16. b |
| 7. d  | 17. d |
| 8. b  | 18. a |
| 9. a  | 19. c |
| 10. a | 20. b |