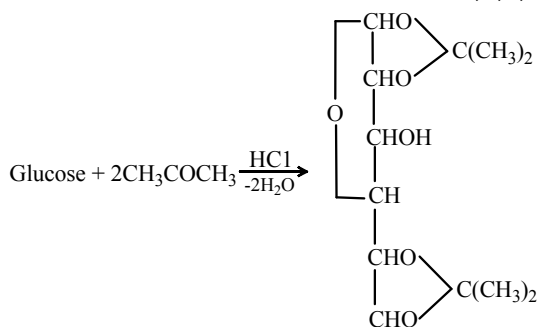


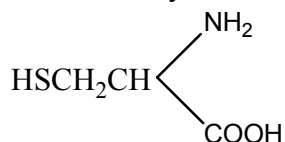
Topic :- Biomolecules

- 1 **(d)**
All are uses of dextrans.
- 2 **(c)**
This is Molisch test for carbohydrate.
- 5 **(b)**
The calorific value is the energy released by combustion of 1 g of a substance. The order is:
Fat > Carbohydrate > Protein.
- 6 **(b)**
Antibiotics are synthesized drugs, not proteins; rest all are proteins.
- 7 **(c)**
Sodium alkyl sulphate. These contain $-\text{SO}_4$ gp.
- 8 **(a)**
Simplest carbohydrate is glyceraldehyde with 3 C atom.
- 9 **(d)**
 β - D - glucose D-glucose α - D - glucose
(\approx 64%) (open chain \approx 0.02%) (\approx 34%)
- 10 **(d)**
Glucose reacts with acetone to form 1,2,5,6-di-isopropylidene glucose.



This proves furanose structure.

- 11 **(c)**
Structure of cysteine is



- 12 **(c)**
These are oils which on exposure to air changes into hard solids, e.g, linseed oil. All drying oils contain a large proportion of the unsaturated acids i.e., linoleic $C_{17}H_{31}COOH$ and linolenic acid $C_{17}H_{29}COOH$. This property is used in paint industry as vehicle for paints.
- 14 **(a)**
Insulin, an hormonal protein secreted by pancreas controls the metabolism of glucose.
- 16 **(b)**
Oils are unsaturated esters (liquid); fats are saturated esters.
- 19 **(b)**
A deficiency of vitamin C causes bleeding gums.
- 20 **(a)**
Glucose is a monosaccharide. The chemical composition of glucose is $C_6H_{12}O_6$.

PE

ANSWER-KEY										
Q.	1	2	3	4	5	6	7	8	9	10
A.	D	C	C	D	B	B	C	A	D	D
Q.	11	12	13	14	15	16	17	18	19	20
A.	C	C	D	A	A	B	B	A	B	A

PE