

Class: XIIth Date:

**Solutions** 

**Subject : CHEMISTRY** 

**DPP No.: 9** 

## **Topic:- Biomolecules**

1 (c)

Follow text.

2 **(b)** 

Natural glucose is dextrorotatory and thus glucose is also known as dextrose

3 (c)

Soaps are salts of higher fatty acids.

4 **(b)** 

Cellulose is a linear polymer of  $\beta$ -glucose.

5 **(d)** 

All are conjugated proteins.

Conjugated proteins are composed of simple proteins and non-protein material. The non-protein material is called **prosthetic group** or **cofactor**. These proteins on hydrolysis yield amino acids and non-protein material. Examples are: mucin in saliva (Prosthetic group, carbohydrate), casein in milk (Prosthetic group, phosphoric acid), haemoglobin in blood (Prosthetic group, iron pigment).

7 **(b)** 

Starch on bacterial action produces acetone as one product.

8 (a)

 $\begin{array}{c} \text{CH}_2\text{OH} \\ | \\ \text{Fat } + \text{NaOH or KOH} {\longrightarrow} \text{CHOH sodium or potassium} \\ | \\ \text{CH}_2\text{OH} \\ \text{Glycerol} \end{array}$ 

Salt of fatty acid.

∴ Glycerol is alcohol, formed by hydrolysis of fats.

9 **(d**)

Sucrose formation involves  $\alpha$ -D Glucopyranose and  $\beta$ -D fructo- furanose.

10 **(b)** 

All are conjugated proteins.

**Conjugated proteins** are composed of simple proteins and non-protein material. The non-protein material is called **prosthetic group** or **cofactor**. These proteins on hydrolysis yield amino acids and non-protein material. Examples are: mucin in saliva (Prosthetic group,

carbohydrate), casein in milk (Prosthetic group, phosphoric acid), haemoglobin in blood (Prosthetic group, iron pigment).

11 **(b)** 

$$C_6H_{12}O_6 \xrightarrow{Zymase} 2C_2H_5OH + 2CO_2$$
Glucose alcohol

12 **(b)** 

This is Molisch's test of carbohydrates. In this experiment, violet ring is formed at the junction of two liquids.

13 **(b)** 

Molisch's test is used in testing of carbohydrate and is not used in testing of protein.

16 **(a)** 

A sequence of three nucleotides in messenger RNA makes a codon for an amino acid because four bases in messenger RNA adenine, cytosine, guanine and uracil have been shown to act in the form of triplet.

17 **(d)** 

Genes are responsible for synthesis of protein.

18 **(c)** 

N is present in all vitamins B, (i.e.,  $B_1$ ,  $B_2$ ,  $B_3$ ,  $B_5$ ,  $B_6$ ,  $B_{12}$ ).

20 **(b)** 

Starch + iodine 
$$\rightarrow$$
 blue colour  $\xrightarrow{\Delta}$  blue colour disappears blue colour reappears

So, iodine test is given by starch.

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

