

## DPP

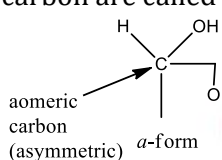
DAILY PRACTICE PROBLEMS

Class : XII<sup>th</sup>  
Date :

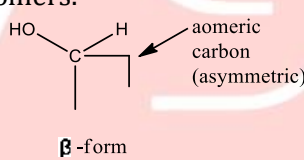
**Solutio**

Subject : CHEMISTRY  
DPP No. : 3

### Topic :- Biomolecules

- 3 (c)  
Oils are unsaturated esters or glycerides olein is ester of unsaturated acid.
- 4 (b)  
Aldehydes and  $\alpha$ -hydroxyl ketones give positive Tollen's test. Glucose is a polyhydroxy aldehyde and fructose is an  $\alpha$ -hydroxyl ketone
- 5 (b)  
Lysine contains two basic groups.  
*e.g.*,  $\text{NH}_2$
- 6 (d)  
Glucose is  $\text{CHO}(\text{CHOH})_4\text{CH}_2\text{OH}$ .
- 7 (b)  
 $\text{C}_1$  carbon of monosaccharides is called anomeric carbon. When the -OH group attached with  $\text{C}_1$  carbon is towards right, it is called  $\alpha$  -form and when the -OH group is towards left, it is called  $\beta$  -form. Such pair of optical isomers which differ in the configuration only around anomeric carbon are called anomers.
- 

anomeric carbon (asymmetric)  
 $\alpha$ -form



anomeric carbon (asymmetric)  
 $\beta$ -form
- 8 (c)  
Glucose  $\xrightarrow{\text{Conc. H}_2\text{SO}_4}$   $6\text{C} + 6\text{H}_2\text{O}$ ; this is dehydration.
- 9 (c)  
Reserved fat act as thermoinsulator.
- 12 (b)  
Both surfactants and detergents possess the surface activity, i.e., the tendency lower surface tension of water. A surfactant also having cleansing action, i. e., detergency in addition to surface activity is called detergent.
- 14 (c)  
Sucrose gives glucose and fructose on hydrolysis with invertase enzyme.
- $$\text{C}_{12}\text{H}_{22}\text{O}_{11} + \text{H}_2\text{O} \xrightarrow{\text{Invertase}} \text{C}_6\text{H}_{12}\text{O}_6 + \text{C}_6\text{H}_{12}\text{O}_6$$
- Sucrose
glucose
fructose
- 15 (c)  
A characteristic of detergent.
- 16 (a)  
The general formula of saturated acids is  $\text{C}_n\text{H}_{2n}\text{O}_2$  or  $\text{C}_n\text{H}_{2n+1}\text{COOH}$ .
- 17 (c)  
The two polynucleotide chains or strands of DNA are joined by hydrogen bonding between the nitrogenous base molecules of their nucleotide monomers
- 19 (d)

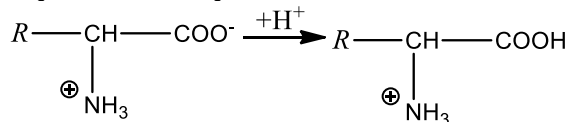


A nucleotide contains a pentose sugar [deoxyribose (in DNA) or ribose (in RNA)], nitrogenous base [such as adenine or guanine or thymine (in DNA) or cytosine or uracil (in RNA)] and a phosphate molecule.

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(d)

At pH = 4, an amphoteric Zwitter ion structure changes into cation when an acid is added to it.



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



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