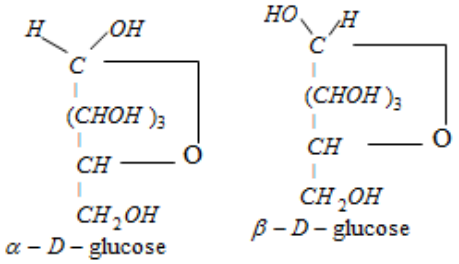
| Daily Tutorial Sheet-2 | Level-1 |
|---|---|

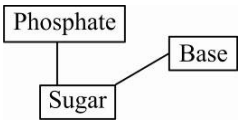
**16.(C)**




**17.(B)** Fructose has three chiral centres and hence $2^3 = 8$ optical isomers are possible.

**18.(C)** Adenine is a purine base common in both RNA and DNA.

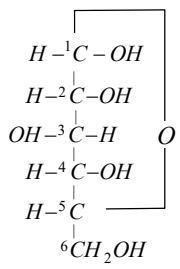
**19.(C)** Deoxyribose nucleic acid contains nucleotides having




linkages.

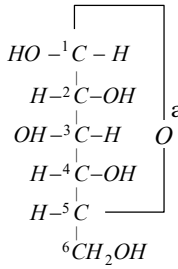
**20.(D)** **21.(A)** **22.(D)** Six type of tripeptide molecules are formed.

**23.(B)**




α - D(+) - Glucopyranose

and

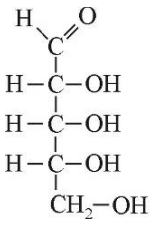



β- D(+) - Glucopyranose

Two form of *D*–Glucopyranose are α–D(+)–Glucopyranose and β–D(+)–Glucopyranose. These are anomers (a pair of stereoisomers which differ in configuration only around $C_1$ are called anomers).

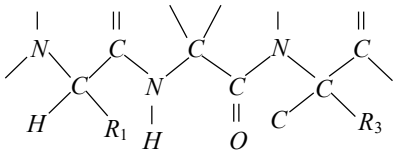
**24.(ABCD)** Dipeptide is formed by 1° amide linkage between 2 amino acid molecules.

**25.(C)**




ribose is a polyhydroxy, aldose sugar having three chiral center hence optically active

**26.(A)** In peptide linkage *i.e.*, $-CONH-$ group, the carboxyl group of one amino acid molecule forms an amide by combination with the amino group of the next amino acid molecule with the liberation of water molecule.



**27.(D)** At isoelectric point, there is no migration of amino acid under the influence of an electric field.

**28.(E)** Sucrose does not undergo mutarotation. Glucose and fructose shows mutarotation because they have two forms $\alpha$ and $\beta$. It is fact that sucrose is a disaccharide. Therefore, assertion is false but reason is true.

**29.(B)** Sucrose on hydrolysis gives glucose and fructose hence it is diasaccharide. All naturally occurring sugars are dextrorotatory.

**30.(B)** Fructose on warming with dilute alkali, gives rise to an equilibrium mixture of glucose, fructose and mannose. The ability of fructose to reduce Fehling solution and Tollen's reagent is probably due to the isomerization of fructose to glucose and mannose (this is called Lobry de Bruyn van Elkenstein rearrangement).