

Daily Tutorial Sheet 1

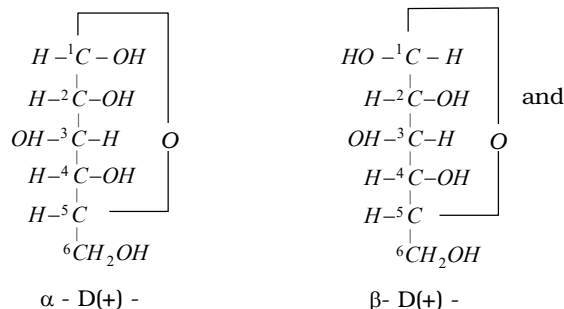
JEE Main (Archive)

1.(B)

2.(C) *D*-glucose is the monomer of cellulose.

3.(B) Insulin is a proteinaceous hormone secreted by β cells (of islet of langerhans) of pancreas in our body.

4.(B)



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).

5.(B) PMMA is used in bullet proof glass.

6.(A) Refer NCERT, Class XII-Part-II, Page-436

7.(BC) Sugar X is non reducing because it is in acetal form and its glycosidic linkage is α -glycosidic linkage. Sugar Y is reducing because it is in hemi acetal form and its glycosidic link is β -glycosidic linkage.

8.(A) Cellulose is a polymer of β -D-(+)-glucopyranose.s

9.(A) It is present in the cell wall of plant.

10.(A) Biodegradable polymers contain functional groups similar to the functional groups present in biopolymers. Aliphatic esters and some polyamides are biodegradable. These polymers have high surface area and minimal chain branching.

11.(A) 18 ATPs are involved in the formation of one glucose molecule as shown in the reaction below :



12.(A) Dacron is a polyester and polyesters are condensation polymers.

13.(A) Quinoline is an alkaloid, it is not present in DNA, DNA has four nitrogen bases adenine, guanine, cytosine and thymine.

14.(B) Polystyrene \rightarrow Manufactures of toys

Glyptal \rightarrow Manufacture of paints and Lacquers

Polyvinyl Chloride \rightarrow Manufacture of rain coats

Bakelite \rightarrow For making computer discs.

15.(B) Glyptal is a polyester of glycerol and phthalic acid used in paints and lacquers.