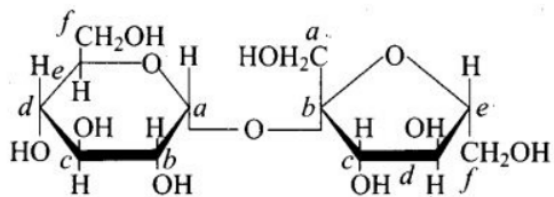


Question 18. Structure of a disaccharide formed by glucose and fructose is given below. Identify anomeric carbon atoms in monosaccharide units.



- (a) 'a' carbon of glucose and 'a' carbon of fructose.
- (b) 'a' carbon of glucose and 'e' carbon of fructose.
- (c) 'a' carbon of glucose and 'b' carbon of fructose.
- (d) 'f' carbon of glucose and 'f' carbon of fructose.

Solution: (c) Carbon adjacent to oxygen atom in the cyclic structure of glucose or fructose is known as anomeric carbon. As shown in the structure above 'a' and 'b' are present at adjacent to oxygen atom. Both carbons differ in configurations of the hydroxyl group.