Chapter 14

Biomolecules

(Assertion and Reason Questions)

Directions: These questions consist of two statements, each printed as Assertion and Reason. While answering these questions, you are required to choose any one of the following four responses.

(a) If both Assertion and Reason are correct and the Reason is a correct explanation of the Assertion.

(b) If both Assertion and Reason are correct but Reason is not a correct explanation of the Assertion.

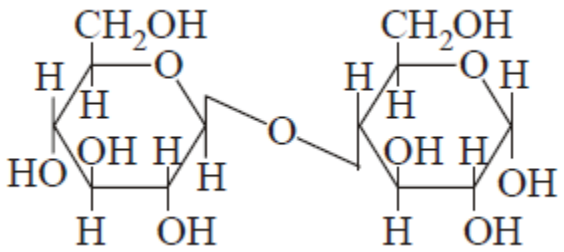
(c) If the Assertion is correct but Reason is incorrect.

(d) If both the Assertion and Reason are incorrect.

Q.1. Assertion: D(+)– Glucose is dextrorotatory in nature.
Reason: 'D' represents its dextrorotatory nature.

Q.2. Assertion: Sucrose is called an invert sugar.
Reason: On hydrolysis, sucrose bring the change in the sign of rotation from dextro (+) to laevo(–).

Q.3. Assertion: β-glycosidic linkage is present in maltose



Reason: Maltose is composed of two glucose units in which C–1 of one glucose unit is linked to C–4 of another glucose unit.

Q.4. Assertion: At isoelectric point, the amino group does not migrate under the influence of electric field.
Reason: At isoelectric point, amino acid exists as a zwitterion.

Q.5. Assertion: Vitamin D cannot be stored in our body
Reason: Vitamin D is fat soluble vitamin and is excreted from the body in urine.

-x-x-x-

ANSWER KEY

Q.1 : (c)

Q.2 : (a) The hydrolysis of sucrose brings about a change in the sign of rotation from dextro (+) to laevo (–) and the product is named as invert sugar.

Q.3 : (d) **Q.4 :** (a)

Q.5 : (d) Vitamin D is a fat soluble vitamin and can be stored in the body since it is not excreted out of the body.