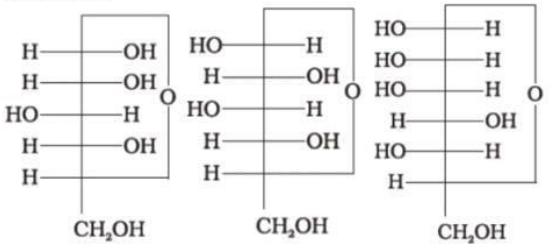
Q3)

**15. Three cyclic structures of monosaccharides are given below which of these are anomers.**



(I) (II) (III)

(i) I and II
(ii) II and III
(iii) I and III
(iv) III is anomer of I and II

**Ans. (i)**

**Explanation:** This behavior could not be explained by the open chain structure (I) for glucose. It was proposed that one of the —OH groups may add to the —CHO group and form a cyclic hemiacetal structure. It was found that glucose forms a six-membered ring in which —OH at C-5 is involved in ring formation. This explains the absence of —CHO group and also existence of glucose in two forms as shown below.