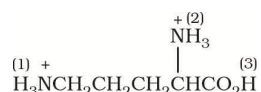


Date Planned : __ / __ / __	Daily Tutorial Sheet – 11	Expected Duration : 90 Min
Actual Date of Attempt : __ / __ / __	Numerical Value Type for JEE Main	Exact Duration : _____

126. The condensation of two amino acids, glycine and (\pm) alanine yields total products x. Find value of x?
127. Lysine has 2 amino groups so it will have three pK_a values – $pK_{a_1} = 2.2$, $pK_{a_2} = 8.5$ and $pK_{a_3} = 10.5$:

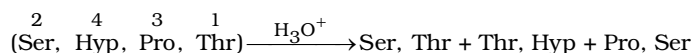


- (A) At pH = 4 the hydrogen atom (H^+) is lost from
- (B) At pH = 9.5 the hydrogen atom (H^+) is lost from
- (C) At pH = 13 the hydrogen atom (H^+) is lost from

A	B	C

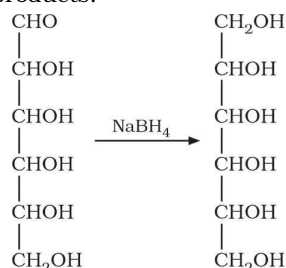
128. The pK_{a_1} , pK_{a_2} and pK_{a_3} values for the amino acid cysteine $\left(\text{HS}-\text{CH}_2-\underset{\text{NH}_2}{\text{CH}}-\text{COOH} \right)$ respectively 1.8, 8.3, 10.8. What is isoelectric point of cysteine amino acid?

129. Give the amino acid sequence of the following polypeptides using the data given by partial hydrolysis.



A	B	C	D

130. The number of dipeptides that can be made from alanine and glycine are_____.
131. Observe the following reaction and find out that how many number of reactant stereoisomers can be reduced to optically inactive meso products.



132. Melmac is a condensation polymer of melamine and formaldehyde. How many nitrogen atoms are present in the melamine monomer?
133. How many double bonds, are present in the repeating structural units of polythene?
134. Amongst the following, the total number of thermoplastics are; polyester, bakelite, polythene, PVC, teflon, PAN, PMMA, nylon 6, melamine formaldehyde.
135. How many of the following are biodegradable polymers? Cellulose, PVC, polystyrene, glyptal, dextran, PHBV, nylon-2-nylon-6, nylon-6, 6, PAN.

- 136.** The number of chiral carbons in β -D (+) – glucose is_____.
- 137.** The number of disulphide linkages present in insulin is_____.
- 138.** The number of tripeptides formed by three different amino acids are_____.
- 139.** Sixteen aldohexoses are possible. How many of these do not undergo mutarotation or osazone formation?
- 140.** Number of pyrimidines present both in DNA and RNA is_____.