PART 1 - CHEMISTRY

Topic : Aldehydes, ketones and carboxylic acids, Polymers

SECTION–1 : (Maximum Marks : 6)

- This section contains **ONE** paragraph.
- Based on each paragraph, there are **TWO** questions.
- The answer to each question is a **NON-NEGATIVE INTEGER**.
- For each question, enter the correct integer corresponding to the answer in the place designated to enter the answer.
- Answer to each question will be evaluated according to the following marking scheme :

Full Marks : +3 If ONLY the correct answer is entered;
Zero Marks : 0 In all other cases.

Paragraph for Questions 1 and 2

An organic compound P with molecular formula $C_9H_{18}O_2$ decolorizes bromine water and also shows positive iodoform test. P on ozonolysis followed by treatment with H_2O_2 gives Q and R. While compound Q shows positive iodoform test, compound R does not give positive iodoform test. Q and R on oxidation with pyridinium chlorochromate (PCC) followed by heating give S and T, respectively. Both S and T show positive iodoform test.

Complete copolymerization of 500 moles of Q and 500 moles of R gives one mole of a single acyclic copolymer U.

[Given, atomic mass: H = 1, C = 12, O = 16]

1. Sum of number of oxygen atoms in S and T is _____. [JEE Advanced 2024 Paper 2]

Scan or tap for the full solution

2. The molecular weight of U is _____. [JEE Advanced 2024 Paper 2]

Scan or tap for the full solution

Space for Rough Work

JEE ADVANCED ALDEHYDES, KETONES AND CARBOXYLIC ACIDS — STRUCTURE ELUCIDATION – OZONOLYSIS, B-KETO ACID DECARBOXYLATION — PYQS

Test Pattern : **JEE (Advanced)**

ANSWER KEY

SECTION–1																					
Ques.	1	2																			
Ans.	**2**	**93018**																			