

PART 1 - CHEMISTRY

Topic : Surface chemistry

SECTION-B : (Maximum Marks : 4)

This section contains **ONE** question.

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 : +4 If **ONLY** the correct answer is entered;

Zero Marks : 0 In all other cases.

1. To form a complete monolayer of acetic acid on 1g of charcoal, 100 mL of 0.5 M acetic acid was used. Some of the acetic acid remained unadsorbed. To neutralize the unadsorbed acetic acid, 40 mL of 1 M NaOH solution was required. If each molecule of acetic acid occupies $P \times 10^{-23} \text{ m}^2$ surface area on charcoal, the value of P is ____.

[Use given data: Surface area of charcoal = $1.5 \times 10^2 \text{ m}^2 \text{ g}^{-1}$; Avogadro's number (N_A) = $6.0 \times 10^{23} \text{ mol}^{-1}$]

[JEE Advanced 2024 Paper 2]

Scan or tap for the
full solution



Space for Rough Work

JEE ADVANCED SURFACE CHEMISTRY – ADSORPTION – PYQS

Test Pattern : **JEE (Advanced)**

ANSWER KEY

SECTION-B

[illegible]