

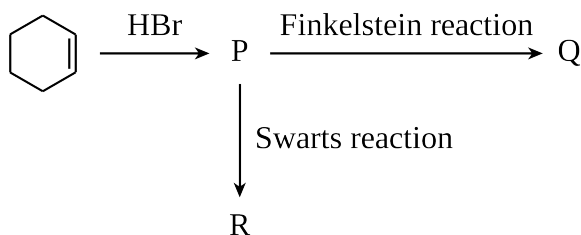
PART 1 - CHEMISTRY

Topic : Haloalkanes and haloarenes

SECTION-1 : (Maximum Marks : 4)

- This section contains **ONE** question.
- Each question has **FOUR** options (A), (B), (C) and (D). **ONE OR MORE THAN ONE** of these four option(s) is(are) correct answer(s).
- For each question, choose the option(s) corresponding to (all) the correct answer(s).
- Answer to each question will be evaluated according to the following marking scheme :
Full Marks : +4 ONLY if (all) the correct option(s) is(are) chosen;
Partial Marks : +3 If all the four options are correct but ONLY three options are chosen;
Partial Marks : +2 If three or more options are correct but ONLY two options are chosen, both of which are correct;
Partial Marks : +1 If two or more options are correct but ONLY one option is chosen and it is a correct option;
Zero Marks : 0 If none of the options is chosen (i.e. the question is unanswered);
Negative Marks : -2 In all other cases.
- For example, in a question, if **(A), (B) and (D)** are the ONLY three options corresponding to correct answers, then choosing ONLY (A), (B) and (D) will get +4 marks; choosing ONLY (A) and (B) will get +2 marks; choosing ONLY (A) and (D) will get +2 marks; choosing ONLY (B) and (D) will get +2 marks; choosing ONLY (A) will get +1 mark; choosing ONLY (B) will get +1 mark; choosing ONLY (D) will get +1 mark; choosing no option (i.e. the question is unanswered) will get 0 marks; and choosing any other combination of options will get -2 marks.

1. For the reaction sequence given below, the correct statement(s) is(are)



(In the options, X is any atom other than carbon and hydrogen, and it is different in P, Q and R)

[JEE Advanced 2025 Paper 1]

- (A) C-X bond length in P, Q and R follows the order $Q > R > P$.
- (B) C-X bond enthalpy in P, Q and R follows the order $R > P > Q$.
- (C) Relative reactivity toward S_N2 reaction in P, Q and R follows the order $P > R > Q$.
- (D) pK_a value of the conjugate acids of the leaving groups in P, Q and R follows the order $R > Q > P$.

Scan or tap for the
full solution



Space for Rough Work

Test Pattern : **JEE (Advanced)**

SECTION-1

[illegible]