ORGANIC CHEMISTRY

ACID DERIVATIVE

1. Considering the reaction sequence given below, the correct statement(s) is(are) [JEE(Advanced) 2022]

H₃C COOH
$$\xrightarrow{1. \text{Br}_2, \text{ red phosphorous}}_{2. \text{H}_2\text{O}}$$
 P \xrightarrow{O}_{O} P \xrightarrow{O}_{O} P \xrightarrow{O}_{O} P \xrightarrow{O}_{O} P \xrightarrow{O}_{O} COOH \xrightarrow{O}_{O} COOH

(A) **P** can be reduced to a primary alcohol using NaBH₄.

(B) Treating \mathbf{P} with conc. NH₄OH solution followed by acidification gives \mathbf{Q} .

(C) Treating \mathbf{Q} with a solution of NaNO₂ in aq. HCl liberates N₂.

(D) \mathbf{P} is more acidic than CH₃CH₂COOH.

