Q2. In the chemical reactions, the compound 'A' and 'B' respectively are (2010)

$$\begin{array}{c}
NH_2 \\
\hline
NaNO_2 \\
HCl,278K
\end{array}
A \xrightarrow{HBF_4} B$$

- 1) nitrobenzene and fluorobenzene
- 2) phenol and benzene
- 3) benzene diazonium chloride and fluorobenzene
- 4) nitrobenzene and chlorobenzene

Answer: option 3 is correct