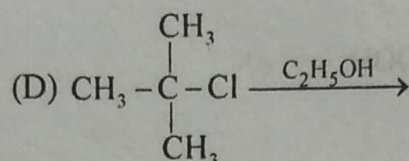
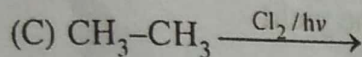
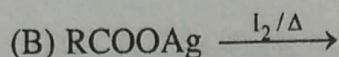
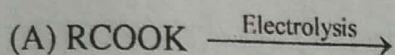
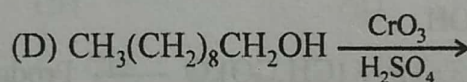
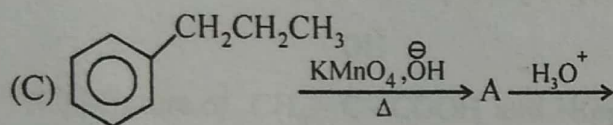
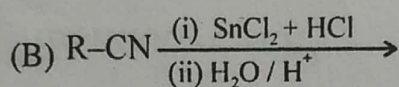
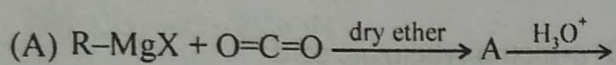


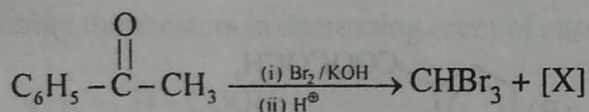
Q.1 In which reaction product is hydrocarbon ?



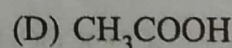
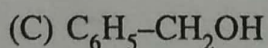
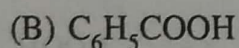
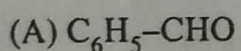
Q.2 Which of the following set of reaction can not prepare $\text{R}-\overset{\text{O}}{\parallel}{\text{C}}-\text{OH}$ as the final product :



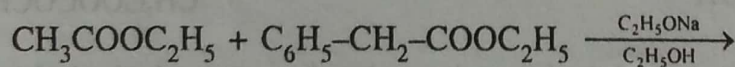
Q.3 In the given reaction,



[X] will be :



Q.4 Number of cross products in the given reaction: (Without considering stereoisomers)



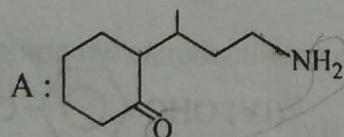
(A) One

(B) Three

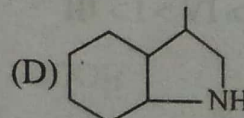
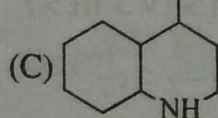
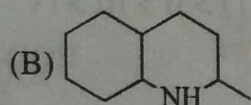
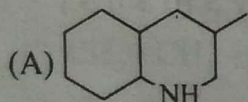
(C) Two

(D) Four

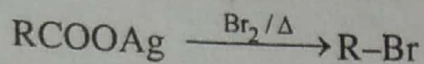
Q.5 Reductive amination of A forms:



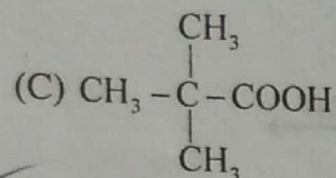
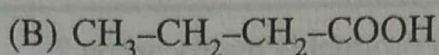
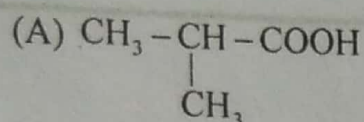
SBG STUDY



Q.6 Consider the given reaction

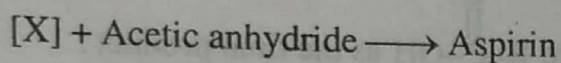


which one of the following acid will give maximum yield of R-Br in the above reaction?



(D) All will give same yield

Q.7 In the given reaction :



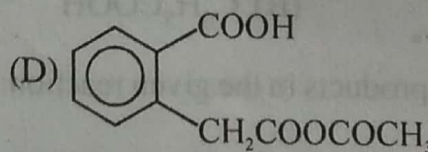
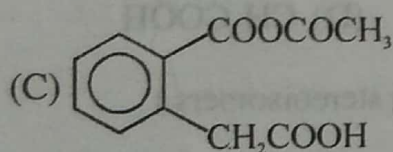
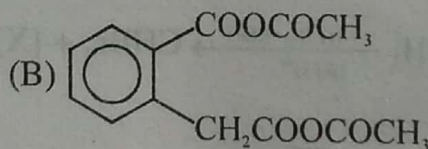
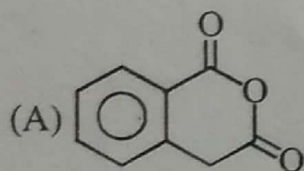
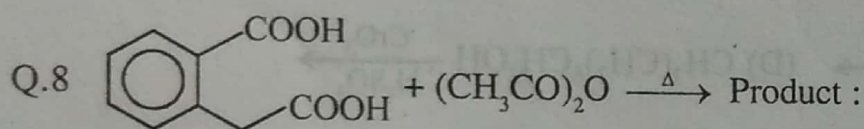
[X] will be :

(A) Benzoic acid

(B) *o*-methoxybenzoic acid

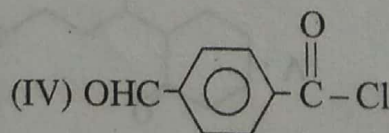
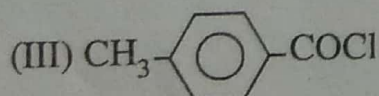
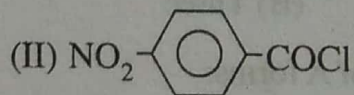
(C) *o*-Hydroxybenzoic acid

(D) *p*-Hydroxybenzoic acid



Q.9 Arrange following compounds in decreasing order of reactivity for hydrolysis reaction :

(I) $\text{C}_6\text{H}_5\text{COCl}$



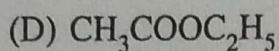
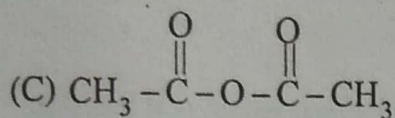
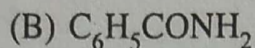
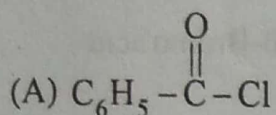
(A) II > IV > I > III

(B) II > IV > III > I

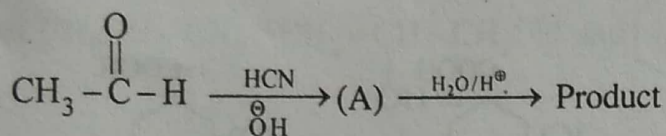
(C) I > II > III > IV

(D) IV > III > II > I

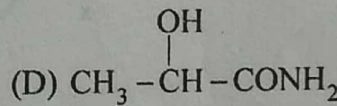
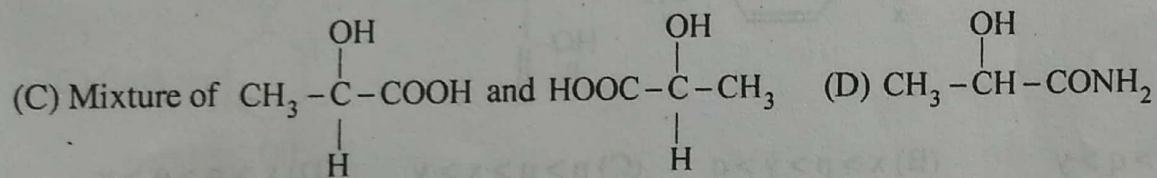
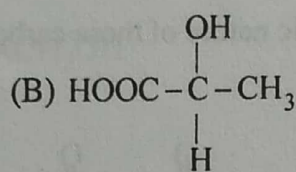
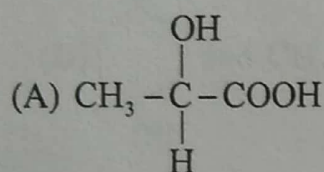
Q.10 Which one of the following compounds gives carboxylic acid with HNO_2 ?



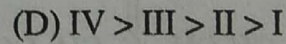
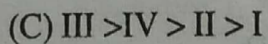
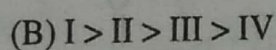
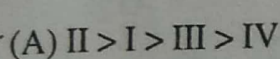
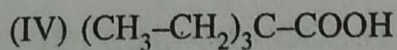
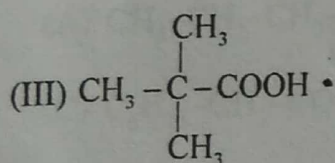
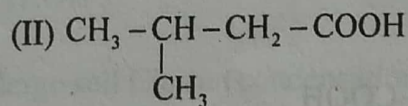
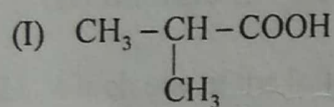
Q.11 In the reaction sequence ,



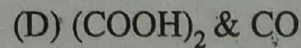
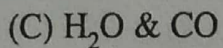
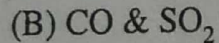
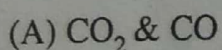
Product will be :



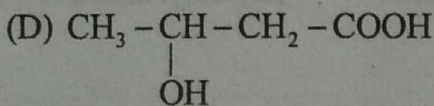
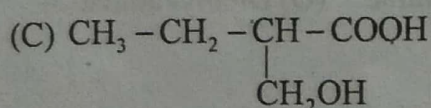
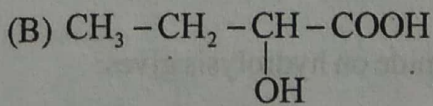
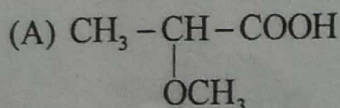
Q.12 Arrange these esters in decreasing order of ease of esterification with $\text{CH}_3\text{OH}/\text{H}^+$:



Q.13 Formic acid $\xrightarrow{\text{Conc. H}_2\text{SO}_4}$ X + Y :



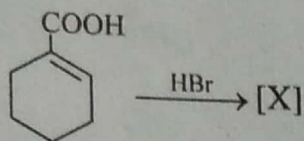
Q.14 Which optically active compound on reduction with LiAlH_4 will give optically inactive compound?



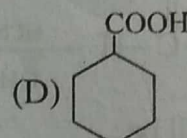
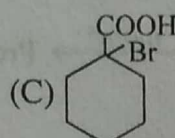
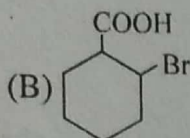
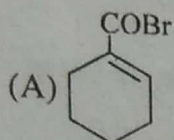
Q.15 Which will form lactone on treatment with NaOH ?

- (A) α -Bromo acid (B) β -Bromo acid (C) β -Hydroxy acid (D) δ -Bromo acid

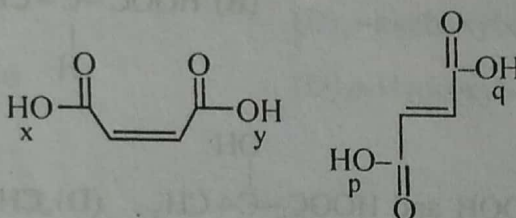
Q.16 In the given reaction:



[X] will be :

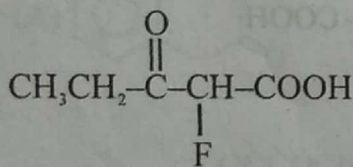


Q.17 The correct order of acidic nature of these carboxylic acids is -

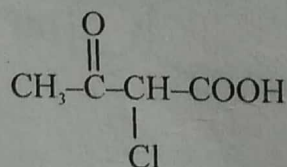


- (A) $p > x > q > y$ (B) $x > p > y > q$ (C) $p > q > x > y$ (D) $x > p > q > y$

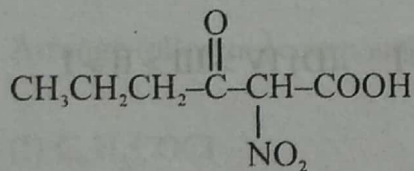
Q.18 Correct order of decarboxylation



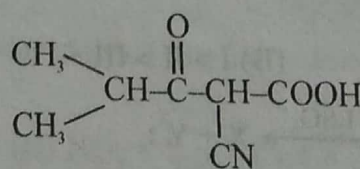
(a)



(b)



(c)



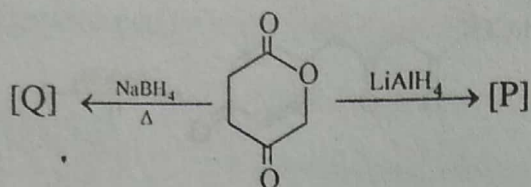
(d)

- (A) $a > b > c > d$ (B) $c > d > b > a$ (C) $c > d > a > b$ (D) $d > c > a > b$

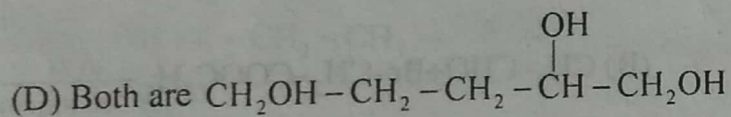
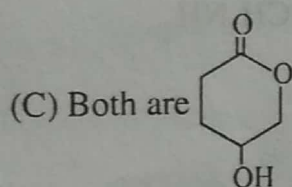
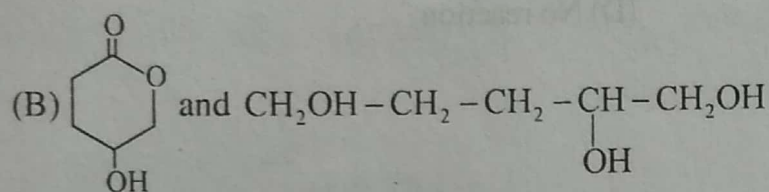
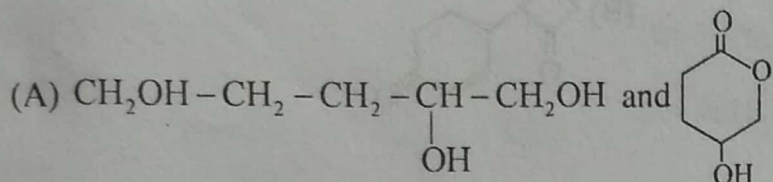
Q.19 N-Ethyl phthalimide on hydrolysis gives:

- (A) Methyl alcohol (B) Ethyl amine (C) Dimethyl amine (D) Diethyl amine

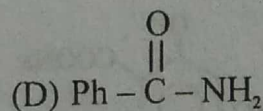
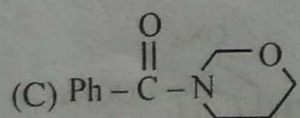
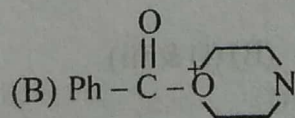
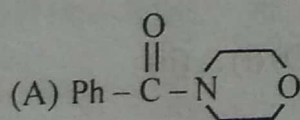
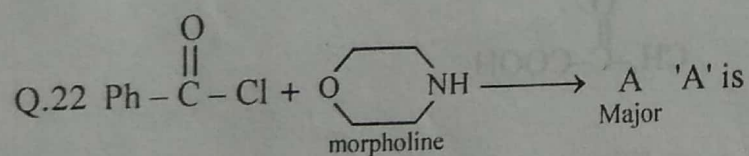
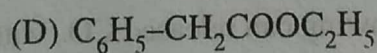
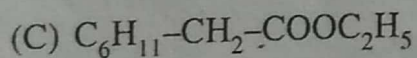
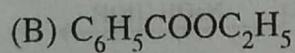
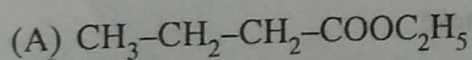
Q.20 In the given reaction:



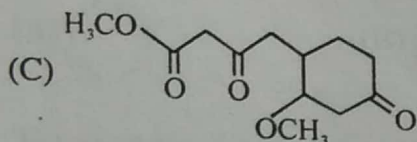
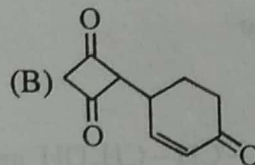
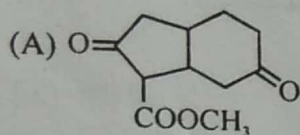
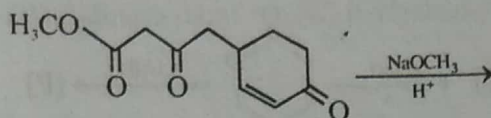
[P] and [Q] respectively be :



Q.21 Which one of the following esters cannot undergo self Claisen condensation?



Q.23 Find out major product of following reaction :



(D) No reaction

Q.24 $\text{CH}_3\text{NH}_2 \xrightarrow{(\text{CH}_3)_2\text{O}} (\text{A})$

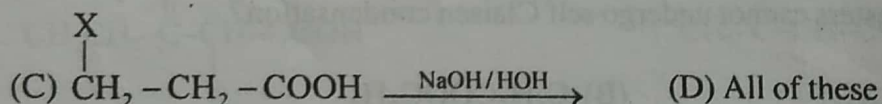
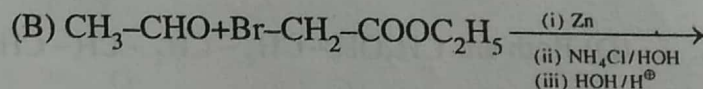
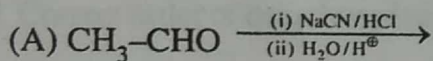
(A) 'A' is more basic than CH_3NH_2

(B) 'A' is less basic than CH_3NH_2

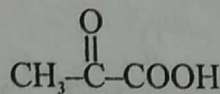
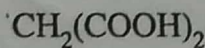
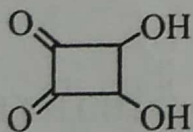
(C) 'A' is Ter-amine

(D) None

Q.25 Which of the following reactions will give α -hydroxy acid as a product:



Q.26 Which of the following can released CO_2 with NaHCO_3 .



(i)

(ii)

(iii)

(A) (i), (ii) & (iii)

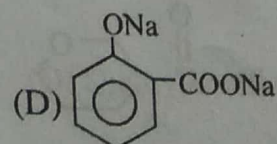
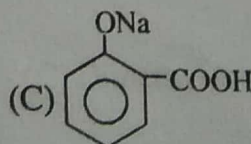
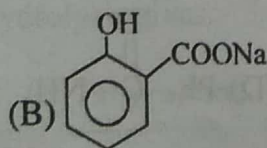
(B) (i) & (ii)

(C) (ii) & (iii)

(D) (i) & (ii)

Q.27 Sodium bicarbonate reacts with salicylic acid to form :

(A) $\text{C}_6\text{H}_5\text{ONa}$



Q.28 Which one of the following reactions can be used for the preparation of β -hydroxy ester:

- (A) Perkin reaction (B) Reformatsky reaction
(C) Aldol condensation (D) Claisen condensation

Q.29 Which of the following diazonium salt is relatively stable at $0-5^\circ\text{C}$:

- (A) $\text{CH}_3\text{-N}\equiv\text{N}\}^+\text{Cl}^-$ (B) $(\text{CH}_3)_2\text{CH-N}\equiv\text{N}\}^+\text{Cl}^-$
(C) $\text{C}_6\text{H}_5\text{-N}\equiv\text{N}\}^+\text{Cl}^-$ (D) $(\text{CH}_3)_3\text{C-N}\equiv\text{N}\}^+\text{Cl}^-$

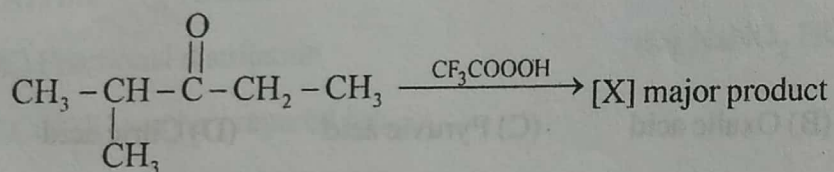
Q.30 Which is most volatile ?

- (A) $\text{CH}_3\text{CH}_2\text{CH}_2\text{NH}_2$ (B) $(\text{CH}_3)_3\text{N}$ (C) $\begin{array}{l} \text{CH}_3\text{CH}_2 \\ \diagdown \quad \diagup \\ \text{NH} \\ \diagup \\ \text{CH}_3 \end{array}$ (D) CH_3OH

Q.31 $\text{C}_6\text{H}_5\text{CONH}_2 \xrightarrow{\text{Br}_2/\text{OD}^\ominus} \text{P}$, 'P' is :

- (A) $\text{C}_6\text{H}_5\text{COND}_2$ (B) $\text{C}_6\text{H}_5\text{ND}_2$ (C) $\text{C}_6\text{H}_5\text{NHD}$ (D) $\text{C}_6\text{H}_5\text{NH}_2$

Q.32 In the given reaction:



[X] will be:

- (A) $\text{CH}_3 - \text{CH}_2 - \overset{\text{O}}{\parallel}{\text{C}} - \text{O} - \underset{\text{CH}_3}{\text{CH}} - \text{CH}_3$ (B) $\text{CH}_3 - \underset{\text{CH}_3}{\text{CH}} - \overset{\text{O}}{\parallel}{\text{C}} - \text{O} - \text{CH}_2 - \text{CH}_3$
(C) $\text{CH}_3 - \overset{\text{O}}{\parallel}{\text{C}} - \text{OC}(\text{CH}_3)_3$ (D) $(\text{CH}_3)_3\text{COOCH}_3$

Q.33 COOH functional group is present in ?

- (A) Carbinol (B) Glycerol (C) Barbituric acid (D) Aspirin