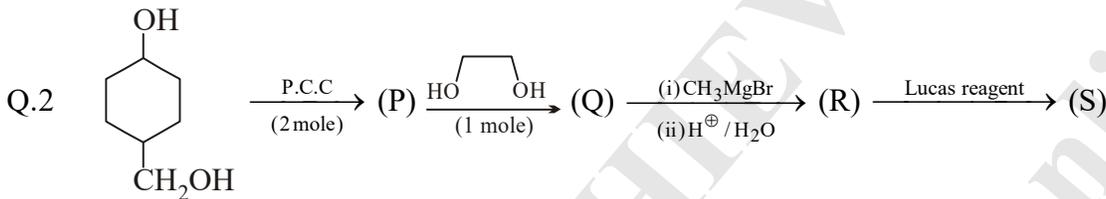
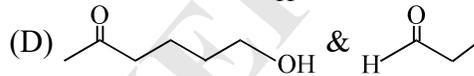
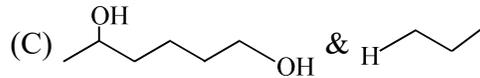
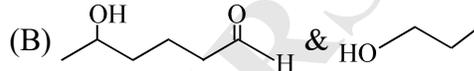
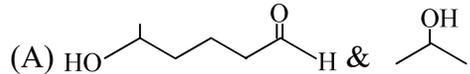
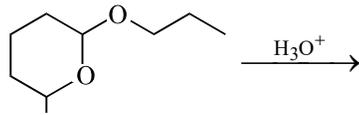


Single Correct

Q.1 What are the most likely products of the reaction shown below?



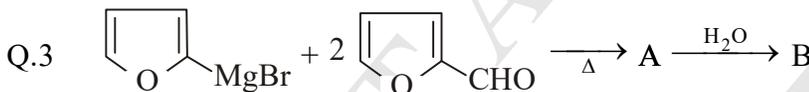
The product(s) show white ppt.

(A) Immediate

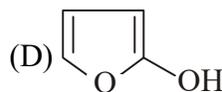
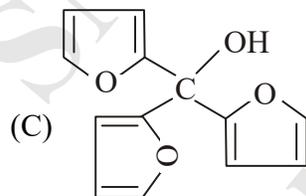
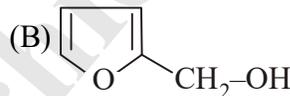
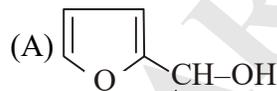
(B) After 5 min.

(C) No ppt. at room temperature

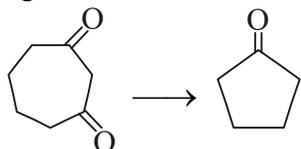
(D) No reaction



B is



Q.4 Following conversion can be carried out by.

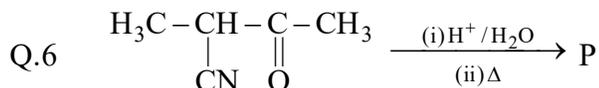
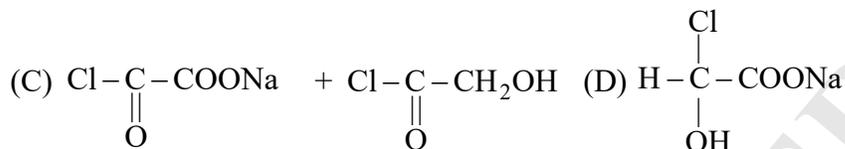
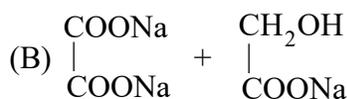
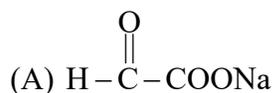
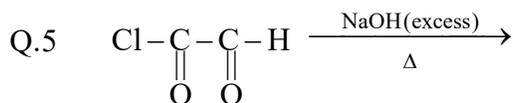


(A) $I_2 / Ca(OH)_2$, Dry distillation

(B) (i) I_2 / (ii) $NaOH$, CaO , Δ

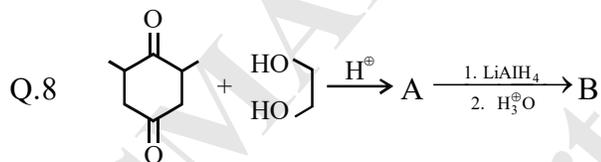
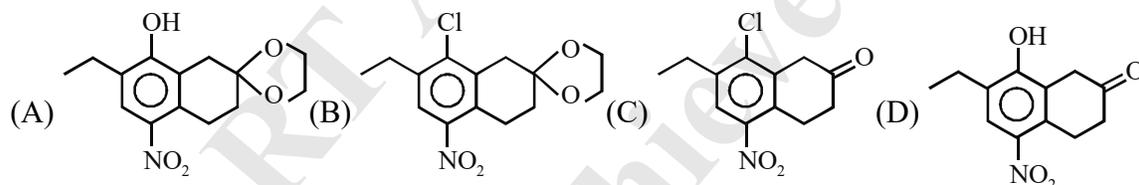
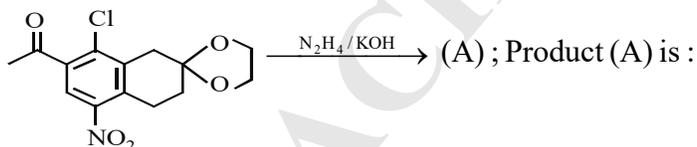
(C) Δ

(D) $NaOH$, Δ

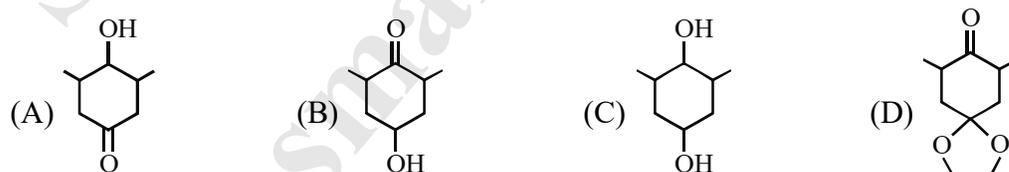


- (A) P gives +ve iodoform test & -ve test with Fehling solution.
 (B) P gives -ve iodoform test & +ve test with NaHCO_3 solution.
 (C) P gives +ve Lucas test & -ve test with NaHSO_3 solution
 (D) P gives +ve test with NaHSO_3 & ceric ammonium nitrate solution.

Q.7 Predict the major product of reaction :

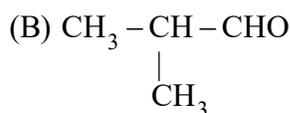
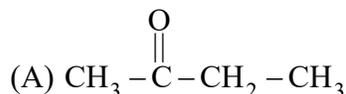


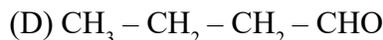
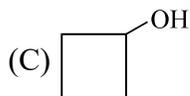
Identify structure of B :



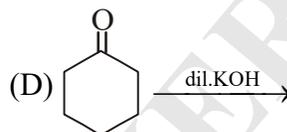
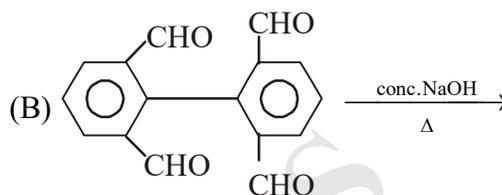
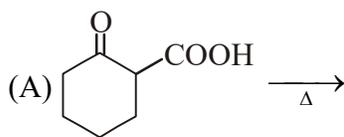
More than one may be correct

Q.9 Compound (X) $\text{C}_4\text{H}_8\text{O}$, which gives 2,4-Dinitrophenyl hydrazine derivative (orange or red or yellow colour) and negative haloform test.

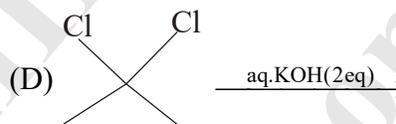
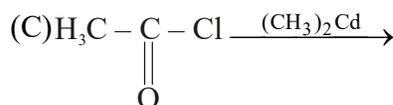
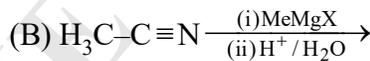




Q.10 Which of the following will produce chiral molecule(s) after reaction is completed?



Q.11 Which reactions can produce propanone as major product?



Q.12 (A) + (B) formed cannot be differentiated by

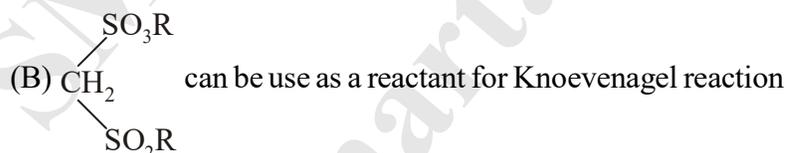
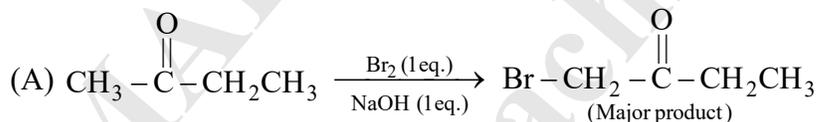
(A) Iodoform

(B) Fehling

(C) NaHSO_3

(D) 2,4-DNP

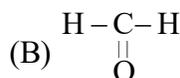
Q.13 Which of the following option(s) are correct:

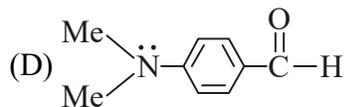
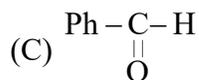


(C) Tischenko reaction is catalysed by $(\text{C}_2\text{H}_5\text{O})_3\text{Al}$.

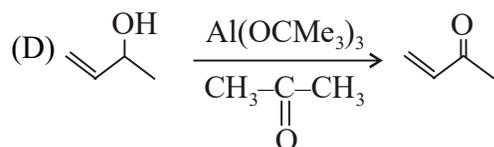
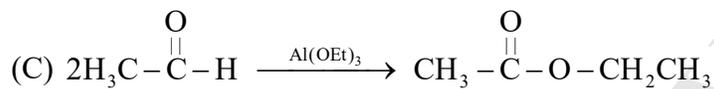
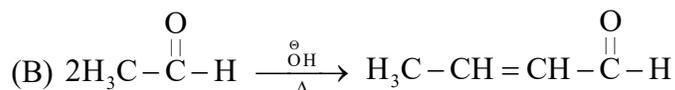
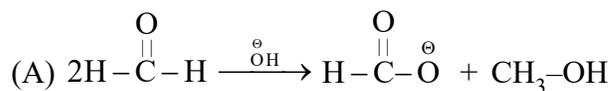
(D) Intramolecular Claisen condensation is known as Dieckmann's condensation.

Q.14 Which of the following do not give Cannizzaro reaction ?



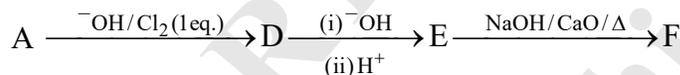
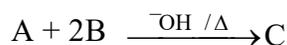


Q.15 Which of the following reactions involve hydride ion transfer?



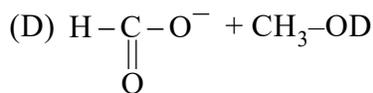
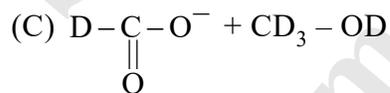
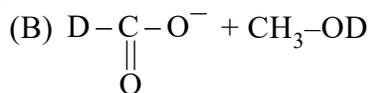
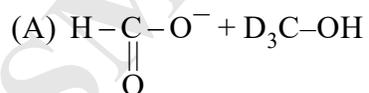
Comprehension

Paragraph for question nos. 16 to 18

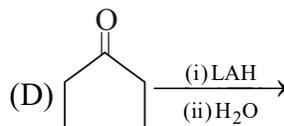
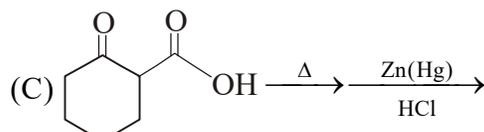
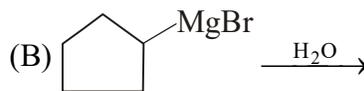
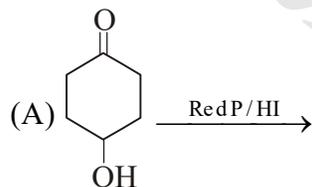


Q.16 $\text{B} \xrightarrow[\Delta]{\text{OD}^\ominus} \text{Product(s)}$

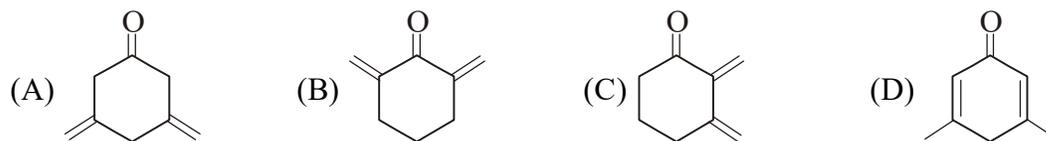
Product(s) are



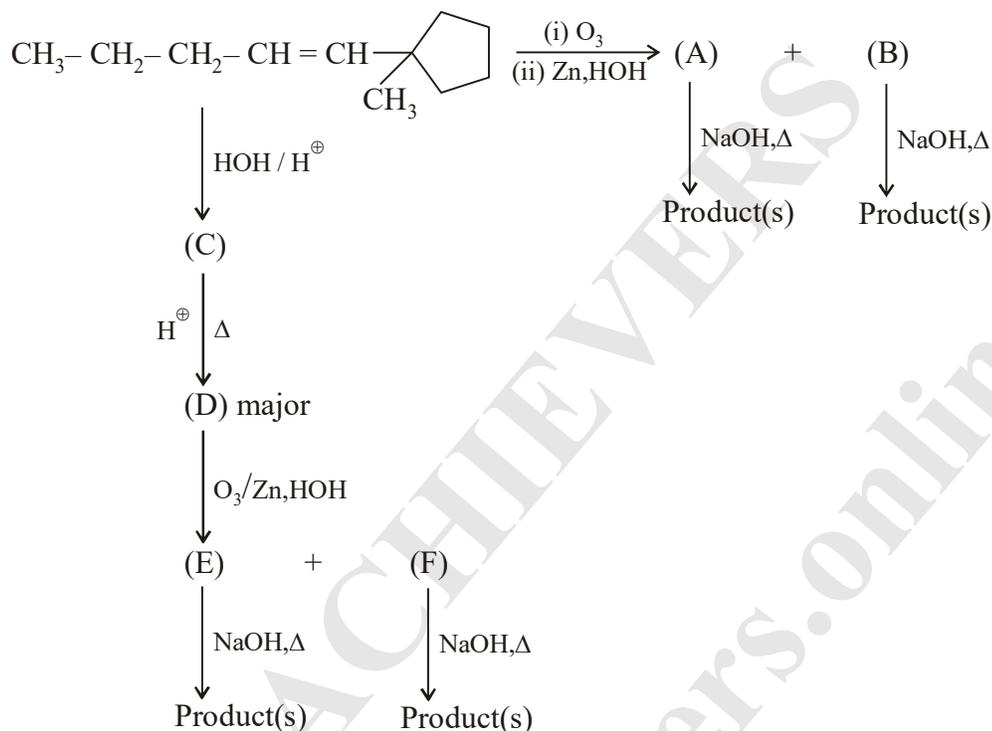
Q.17 F can be obtained by



Q.18 C is



Paragraph for question nos. 19 to 21



Q.19 Which of the following reaction or reaction mechanism is not involved in above interconversions?

- (A) Electrophilic addition reaction (B) Acid base reaction
(C) Elimination reaction (D) Free radical combination reaction

Q.20 Number of ozonide formed during the formation of A & B (Excluding stereo)

- (A) 1 (B) 2 (C) 3 (D) 4

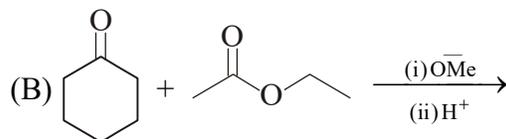
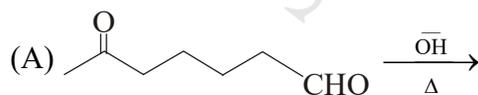
Q.21 Find out the correct statement.

- (A) In presence of NaOH, A and B give the same type of reaction
(B) In presence of NaOH, E and F give the same type of reaction
(C) D is same as starting compound
(D) Ring size is different in D and starting compound

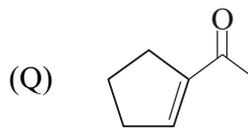
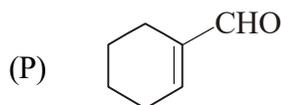
Match the column

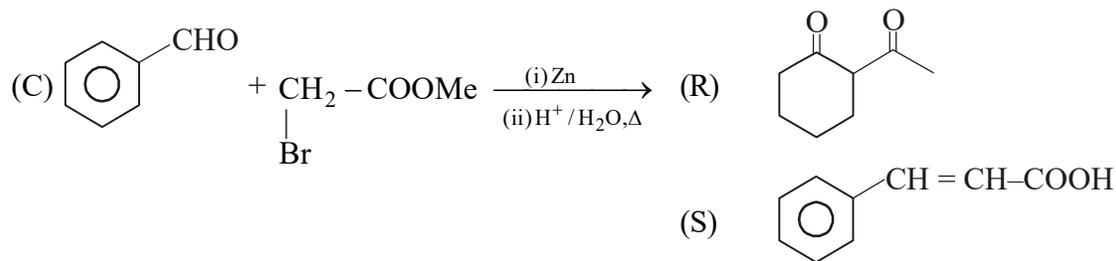
Q.22

Column I



Column II

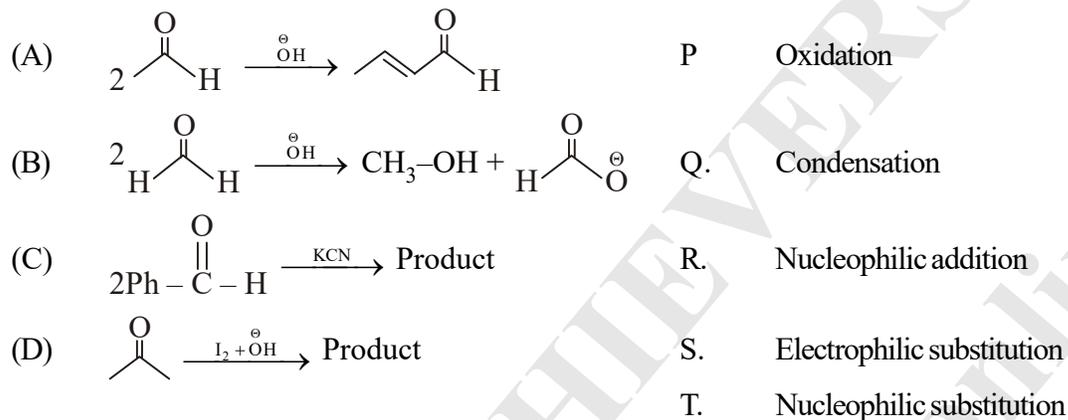




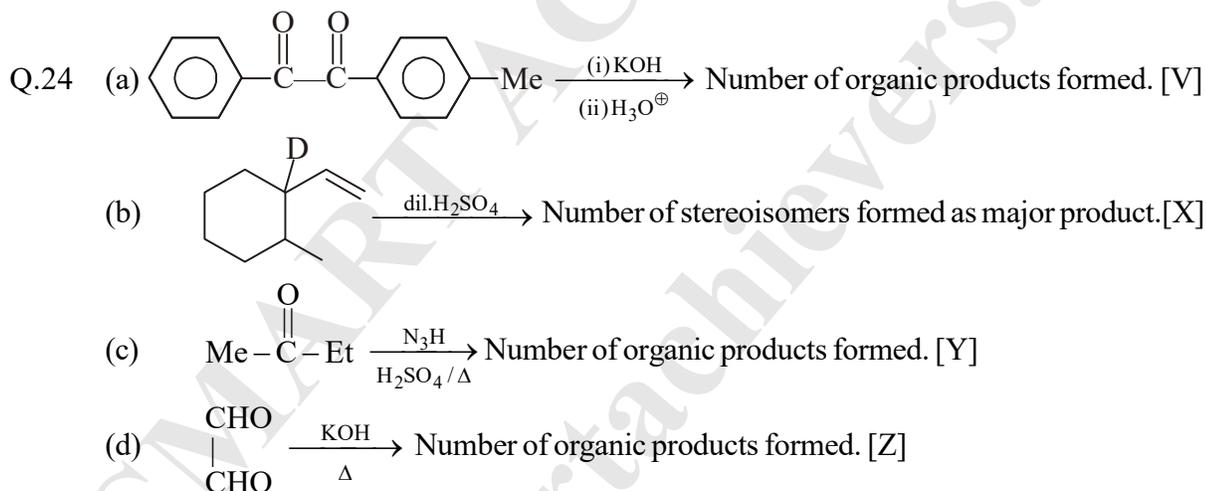
Q.23

Column (I)

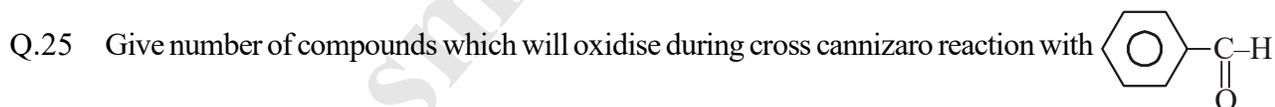
Column (II)

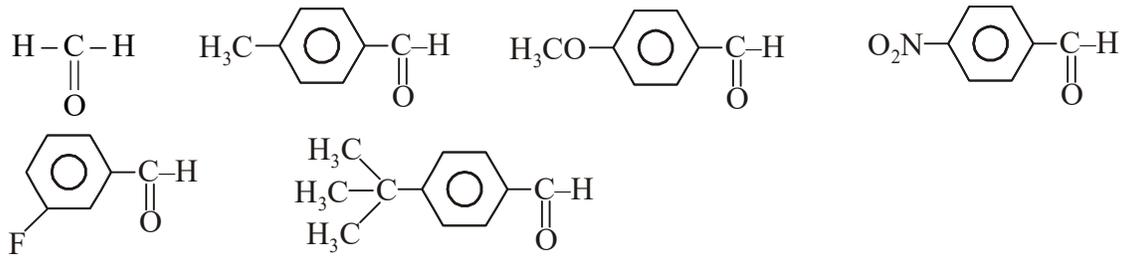


Subjective

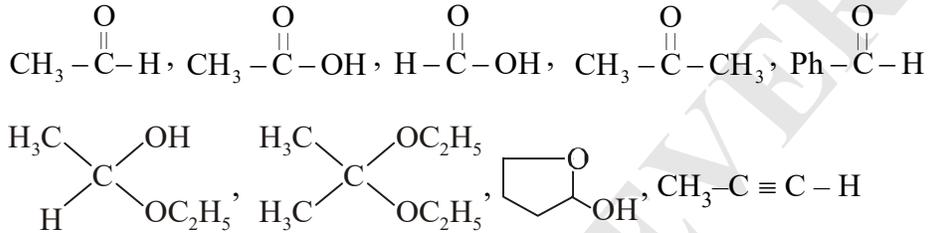


Write answer of part (a), (b), (c) & (d) in the same order and present the four digit number as answer in OMR sheet. For example : If all these answer are 9 then fill 9999 in OMR sheet.

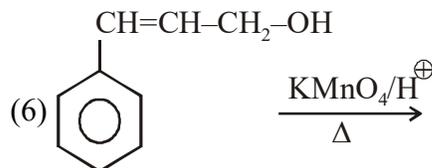
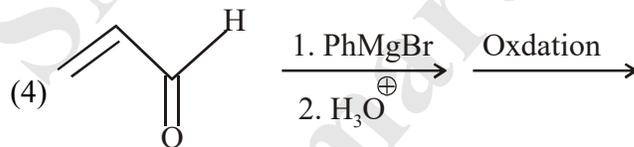
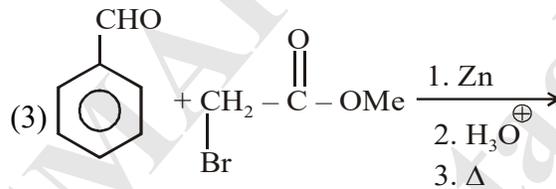
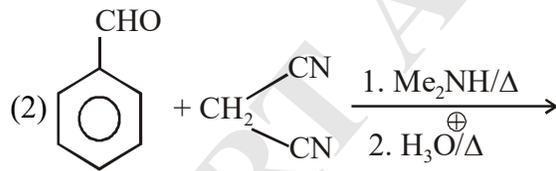
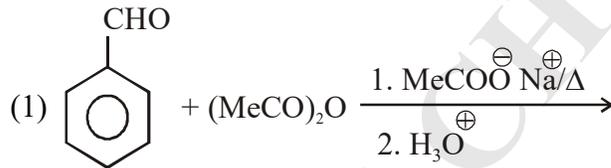




Q.26 Of the following compounds, how many would give positive silver mirror test.

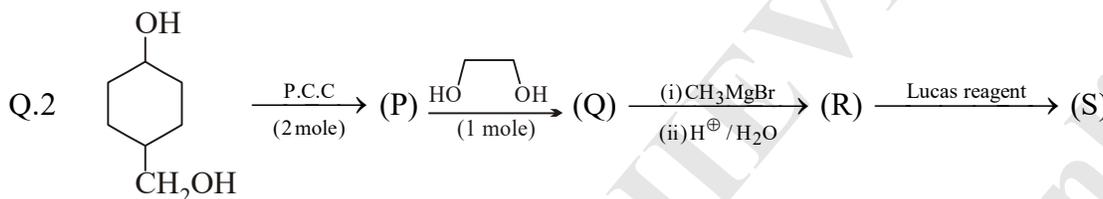
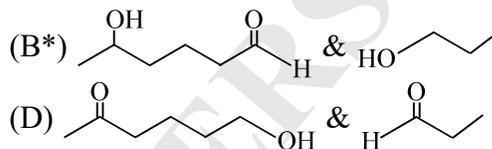
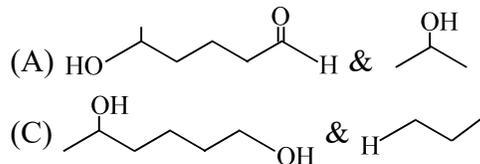
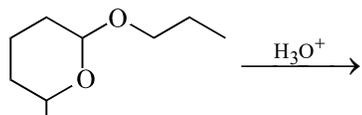


Q.27 Which reaction will give cinnamic acid as final product?



Single Correct

Q.1 What are the most likely products of the reaction shown below?



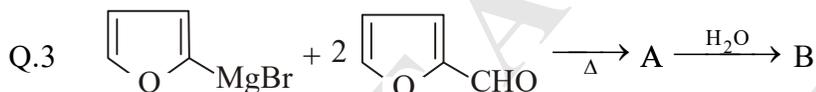
The product(s) show white ppt.

(A*) Immediate

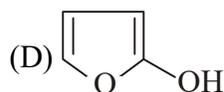
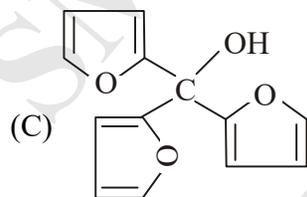
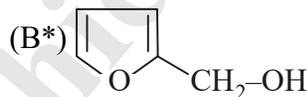
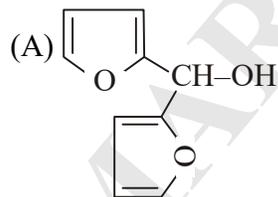
(B) After 5 min.

(C) No ppt. at room temperature

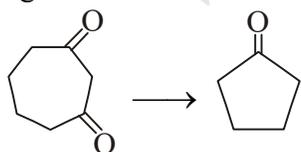
(D) No reaction



B is



Q.4 Following conversion can be carried out by.

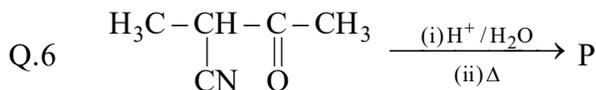
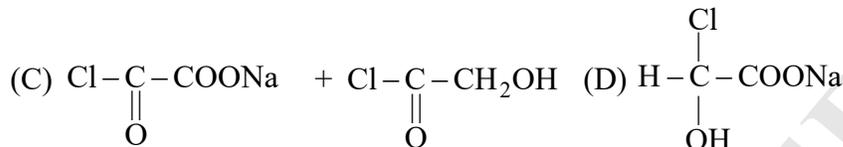
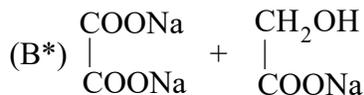
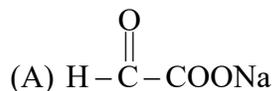
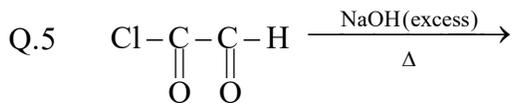


(A*) $\text{I}_2/\text{Ca}(\text{OH})_2$, Dry distillation

(B) (i) I_2 / (ii) NaOH , CaO , Δ

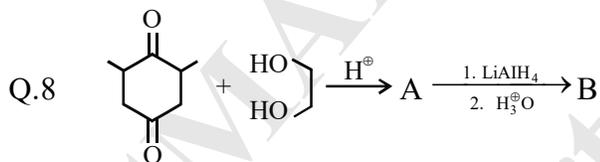
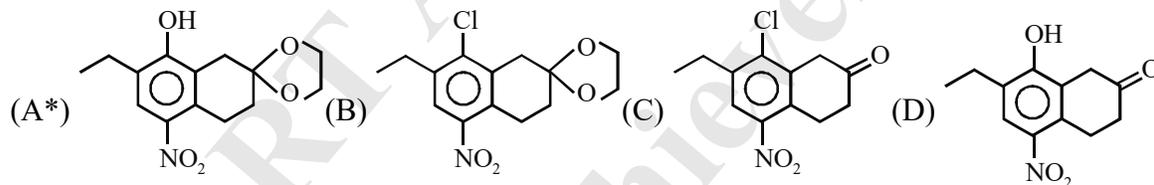
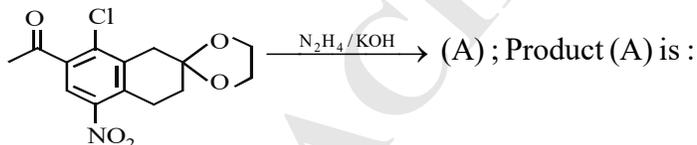
(C) Δ

(D) NaOH , Δ

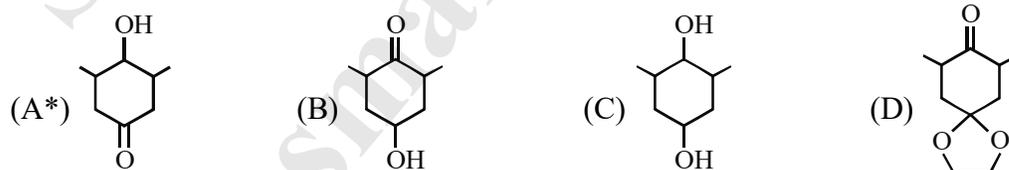


- (A*) P gives +ve iodoform test & -ve test with Fehling solution.
 (B) P gives -ve iodoform test & +ve test with NaHCO_3 solution.
 (C) P gives +ve Lucas test & -ve test with NaHSO_3 solution
 (D) P gives +ve test with NaHSO_3 & ceric ammonium nitrate solution.

Q.7 Predict the major product of reaction :

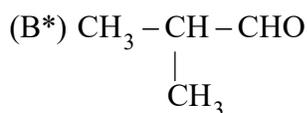
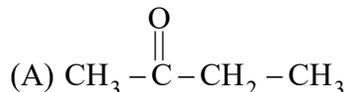


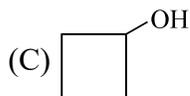
Identify structure of B :



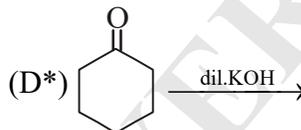
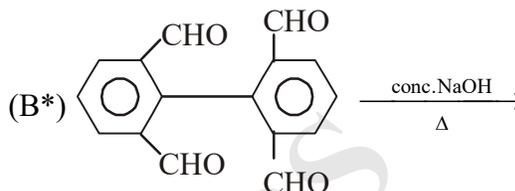
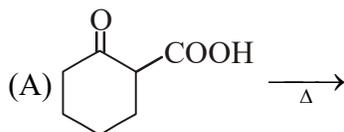
More than one may be correct

Q.9 Compound (X) $\text{C}_4\text{H}_8\text{O}$, which gives 2,4-Dinitrophenyl hydrazine derivative (orange or red or yellow colour) and negative haloform test.

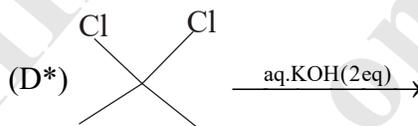
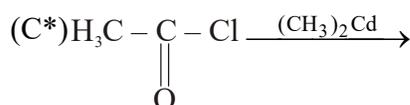
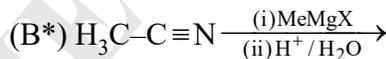


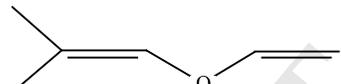


Q.10 Which of the following will produce chiral molecule(s) after reaction is completed?



Q.11 Which reactions can produce propanone as major product?



Q.12  (A) + (B) formed cannot be differentiated by

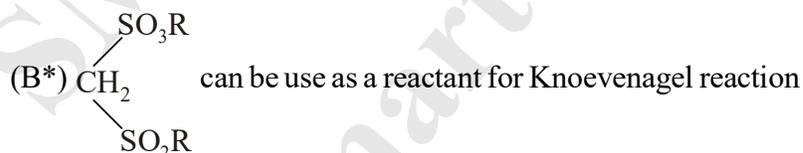
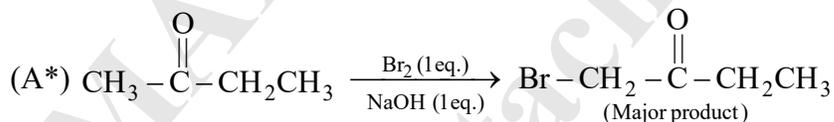
(A) Iodoform

(B*) Fehling

(C*) NaHSO_3

(D*) 2,4-DNP

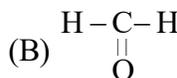
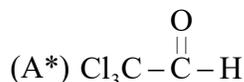
Q.13 Which of the following option(s) are correct:

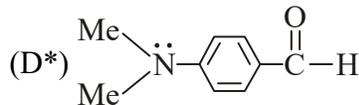
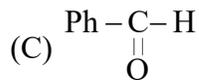


(C*) Tischenko reaction is catalysed by $(\text{C}_2\text{H}_5\text{O})_3\text{Al}$.

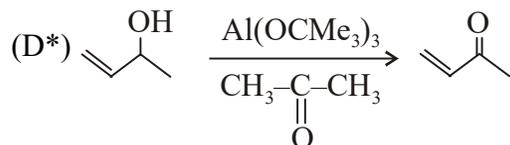
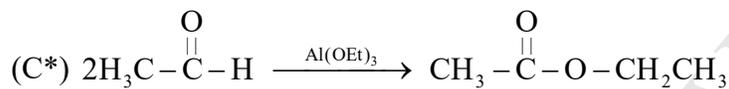
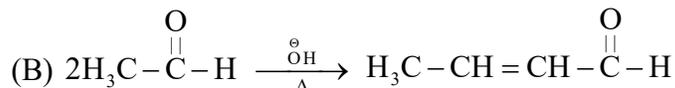
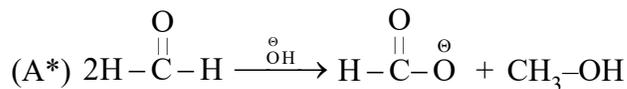
(D*) Intramolecular Claisen condensation is known as Dieckmann's condensation.

Q.14 Which of the following do not give Cannizzaro reaction ?



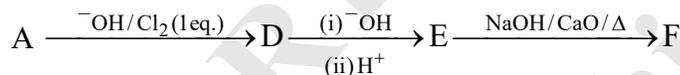
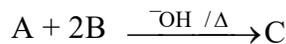


Q.15 Which of the following reactions involve hydride ion transfer?



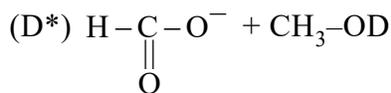
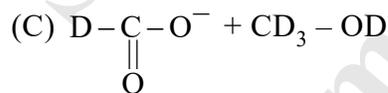
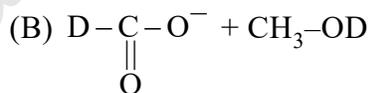
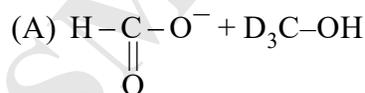
Comprehension

Paragraph for question nos. 16 to 18

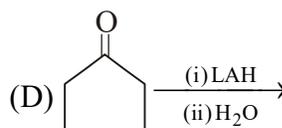
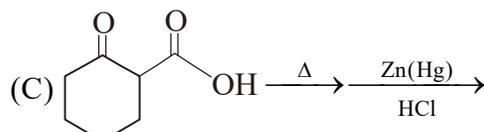
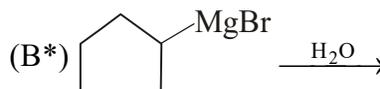
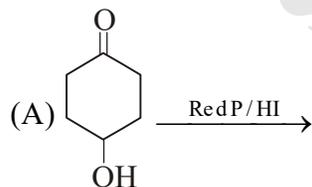


Q.16 $\text{B} \xrightarrow[\Delta]{\text{OD}} \text{Product(s)}$

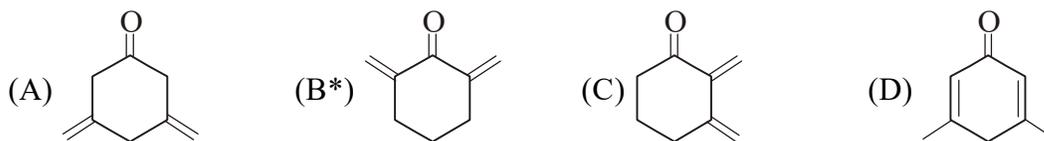
Product(s) are



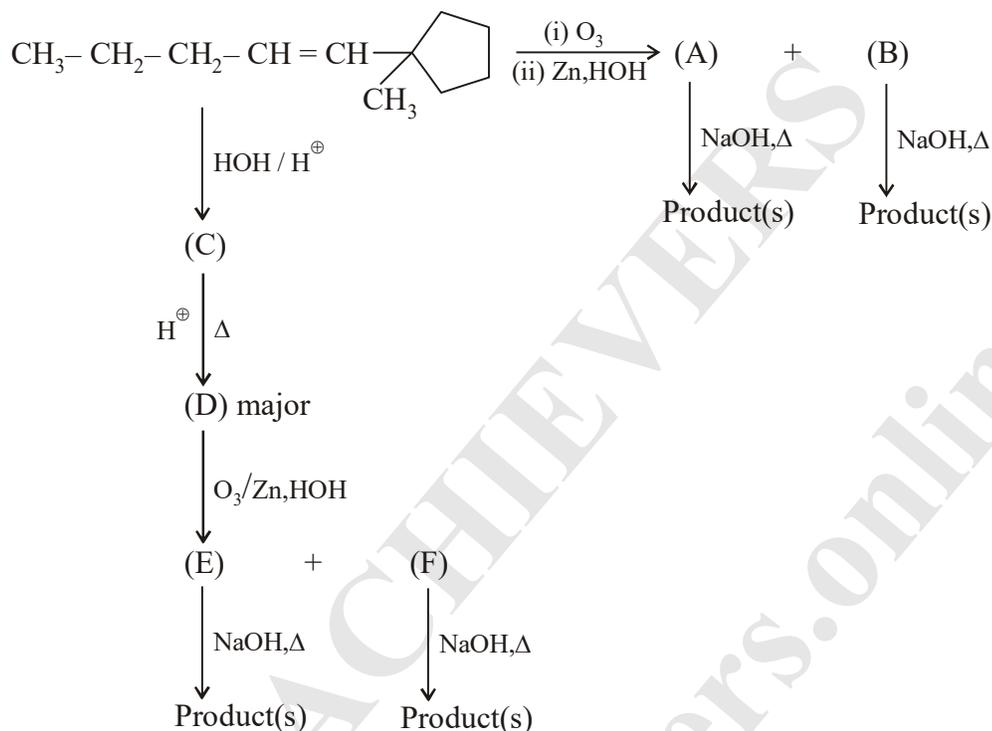
Q.17 F can be obtained by



Q.18 C is



Paragraph for question nos. 19 to 21



Q.19 Which of the following reaction or reaction mechanism is not involved in above interconversions?

- (A) Electrophilic addition reaction (B) Acid base reaction
(C) Elimination reaction (D*) Free radical combination reaction

Q.20 Number of ozonide formed during the formation of A & B (Excluding stereo)

- (A) 1 (B) 2 (C*) 3 (D) 4

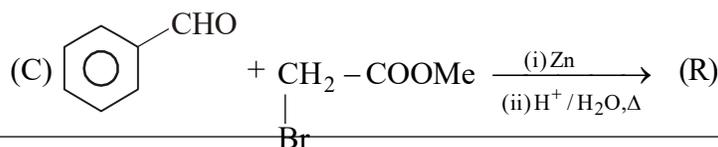
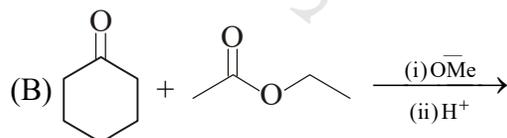
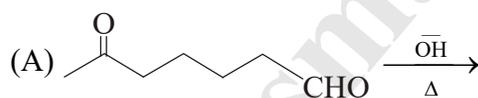
Q.21 Find out the correct statement.

- (A) In presence of NaOH, A and B give the same type of reaction
(B*) In presence of NaOH, E and F give the same type of reaction
(C) D is same as starting compound
(D) Ring size is different in D and starting compound

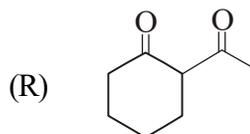
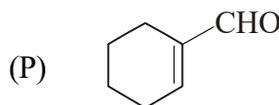
Match the column

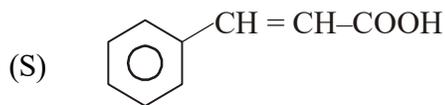
Q.22

Column I



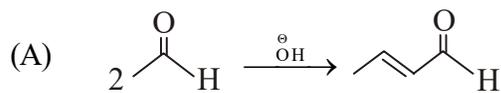
Column II



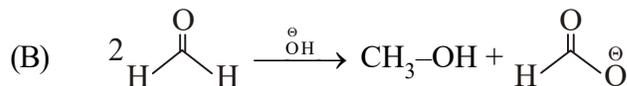


[Ans. (A) Q (B) R (C) S]
Column (II)

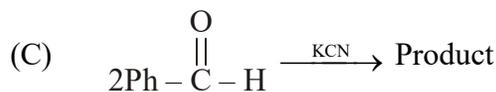
Q.23 Column (I)



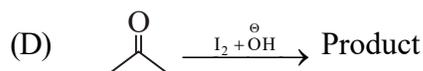
P Oxidation



Q. Condensation



R. Nucleophilic addition

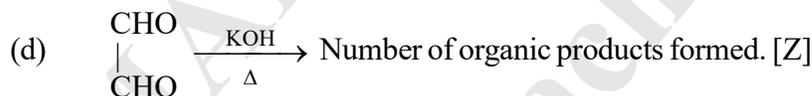
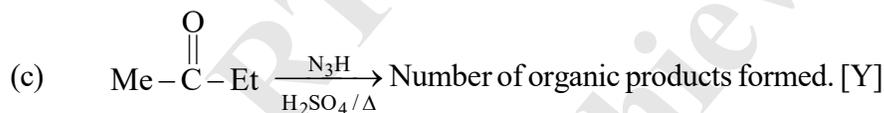
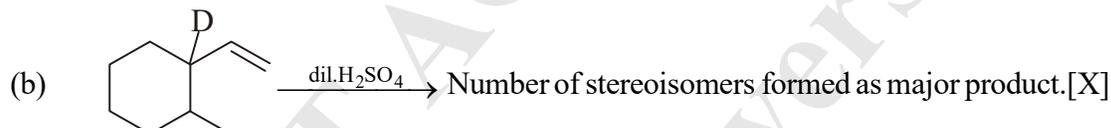
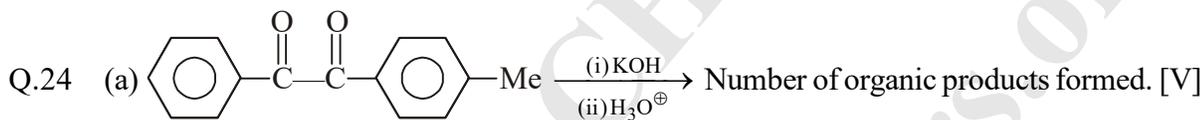


S. Electrophilic substitution

T. Nucleophilic substitution

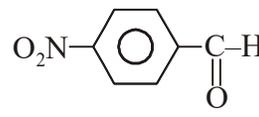
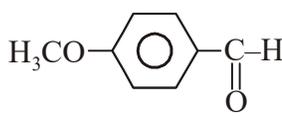
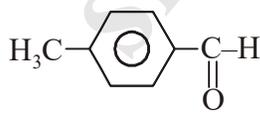
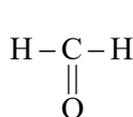
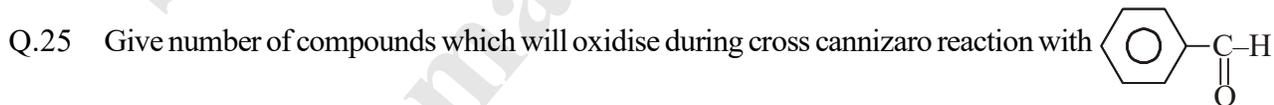
[Ans.(A)–Q, R (B)–PRT, (C)–QR, (D)–P,S,T]

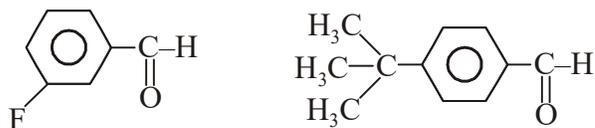
Subjective



Write answer of part (a), (b), (c) & (d) in the same order and present the four digit number as answer in OMR sheet. For example : If all these answer are 9 then fill 9999 in OMR sheet.

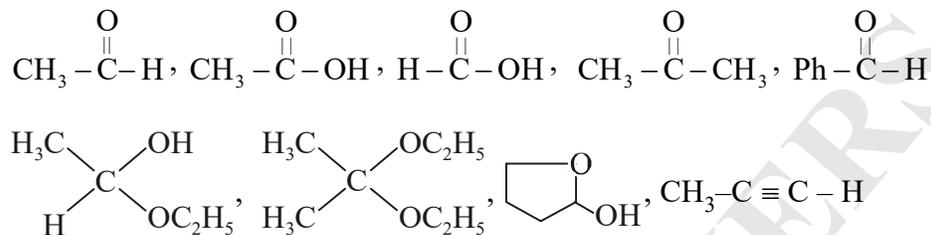
[Ans. 2821]





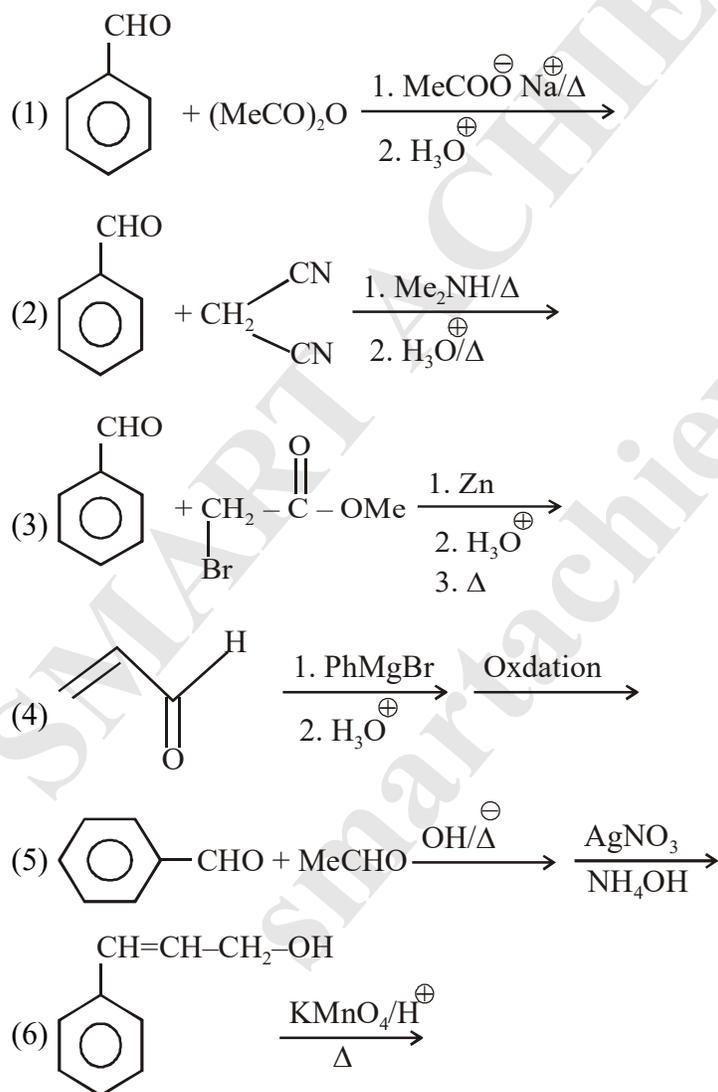
[Ans. 3]

Q.26 Of the following compounds, how many would give positive silver mirror test.



[Ans. 5]

Q.27 Which reaction will give cinnamic acid as final product?



[Ans. 4]