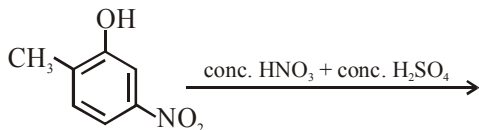
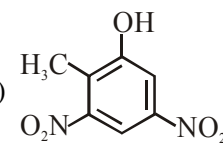
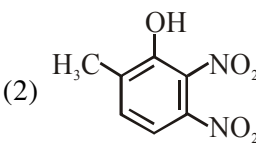
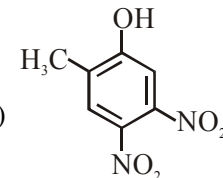
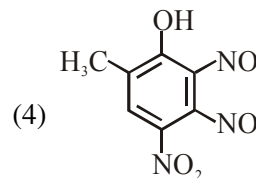


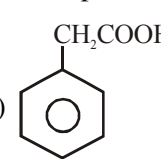
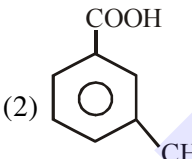
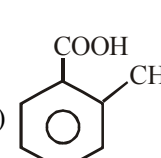
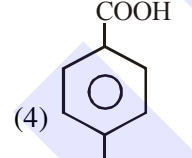
AROMATIC COMPOUND

1. The major product of the following reaction is:

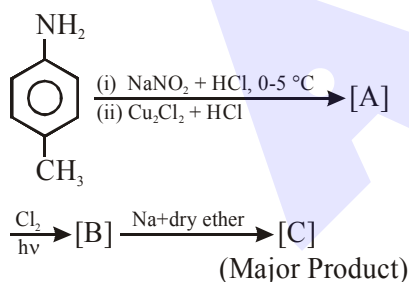


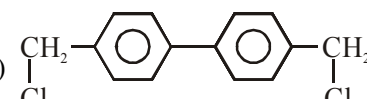
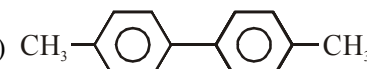
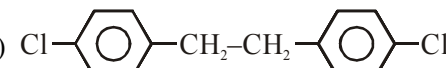
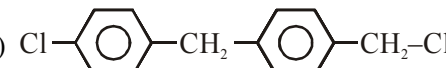
- (1)  (2) 
 (3)  (4) 

2. [P] on treatment with $\text{Br}_2/\text{FeBr}_3$ in CCl_4 produced a single isomer $\text{C}_8\text{H}_7\text{O}_2\text{Br}$ while heating [P] with sodalime gave toluene. The compound [P] is :

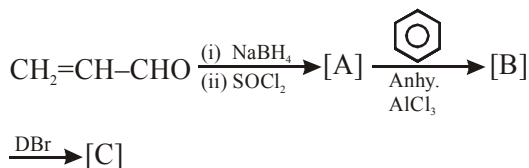
- (1)  (2) 
 (3)  (4) 

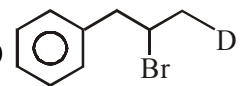
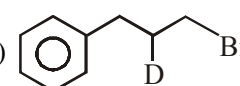
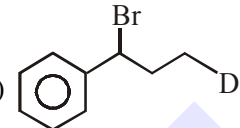
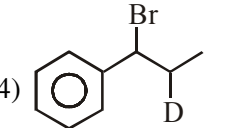
3. In the following reaction sequence, [C] is :-



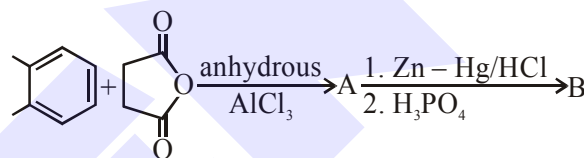
- (1)  (2) 
 (3)  (4) 

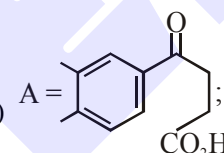
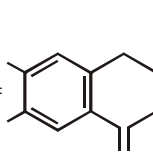
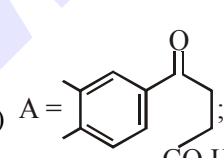
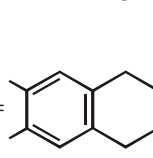
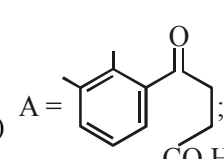
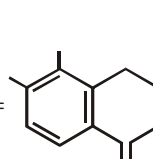
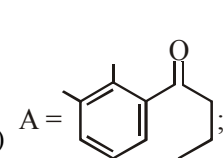
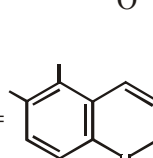
4. The major product [C] of the following reaction sequence will be :-



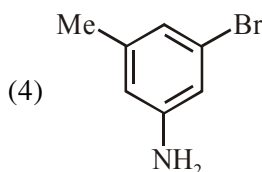
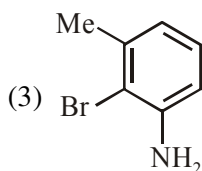
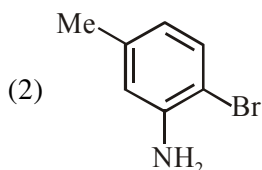
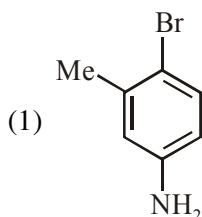
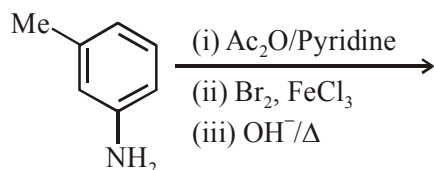
- (1)  (2) 
 (3)  (4) 

5. In the following reaction sequence the major products A and B are :

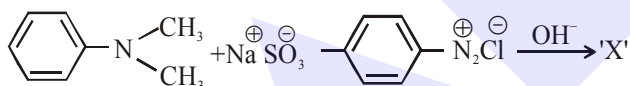


- (1) A = ; B = 
 (2) A = ; B = 
 (3) A = ; B = 
 (4) A = ; B = 

6. The final major product of the following reaction is :



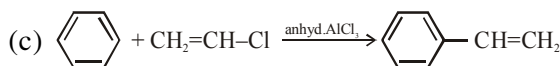
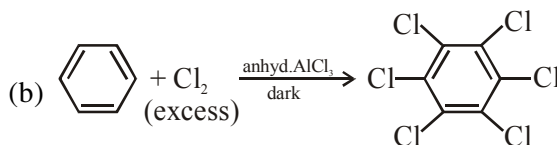
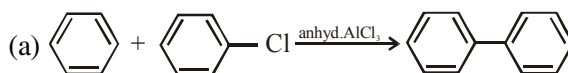
7. A solution of phenol in chloroform when treated with aqueous NaOH gives compound P as a major product. The mass percentage of carbon in P is _____. (to the nearest integer) (Atomic mass : C = 12; H = 1; O = 16)
8. Consider the following reaction :



The product 'X' is used :

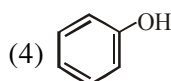
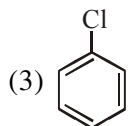
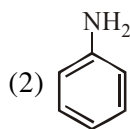
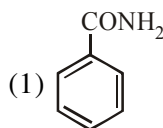
- (1) in acid base titration as an indicator
- (2) in protein estimation as an alternative to ninhydrin
- (3) in laboratory test for phenols
- (4) as food grade colourant

9. Consider the following reactions :

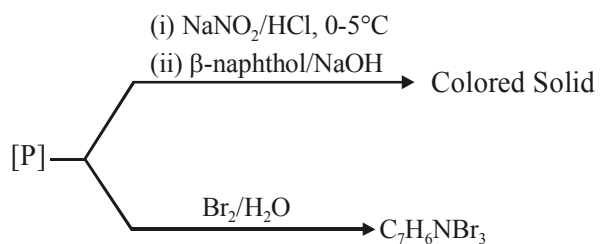


Which of these reactions are possible ?

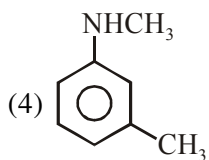
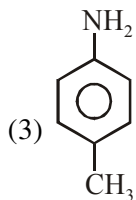
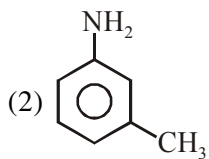
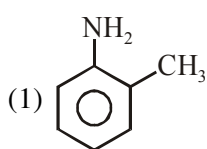
- (1) (a) and (d)
 - (2) (b) and (d)
 - (3) (a) and (b)
 - (4) (b), (c) and (d)
10. In the following sequence of reactions the maximum number of atoms present in molecule 'C' in one plane is _____.
- $\text{A} \xrightarrow[\text{Cu tube}]{\text{Red hot}} \text{B} \xrightarrow[\text{Anhydrous AlCl}_3]{\text{CH}_3\text{Cl (1.eq.)}} \text{C}$
- (A is a lowest molecular weight alkyne)
11. Which of these will produce the highest yield in Friedel Crafts reaction?



12. Consider the following reactions,

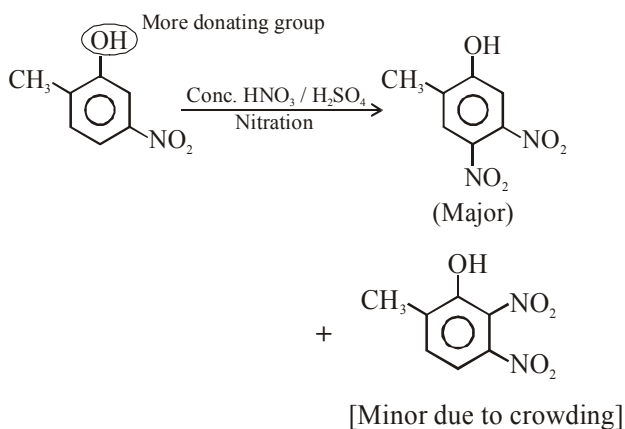
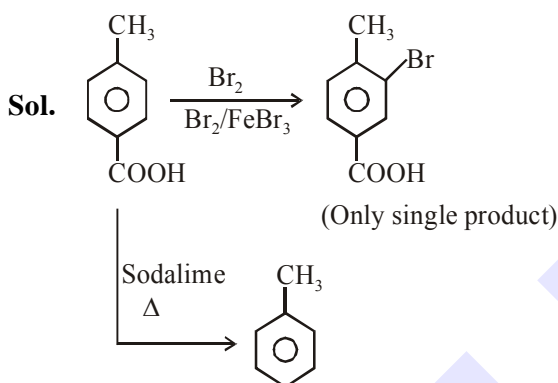
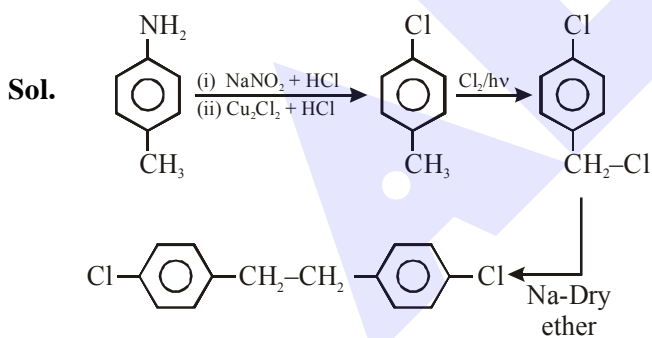
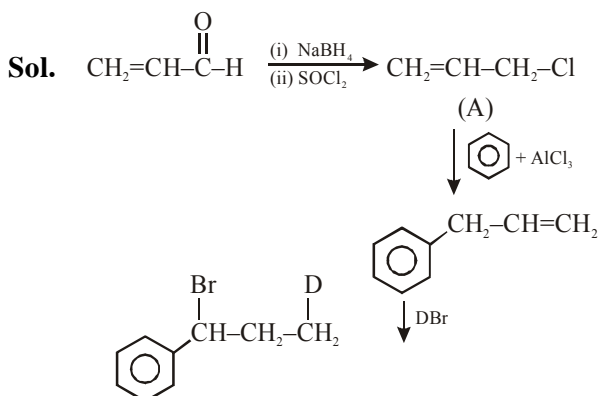


The compound [P] is :

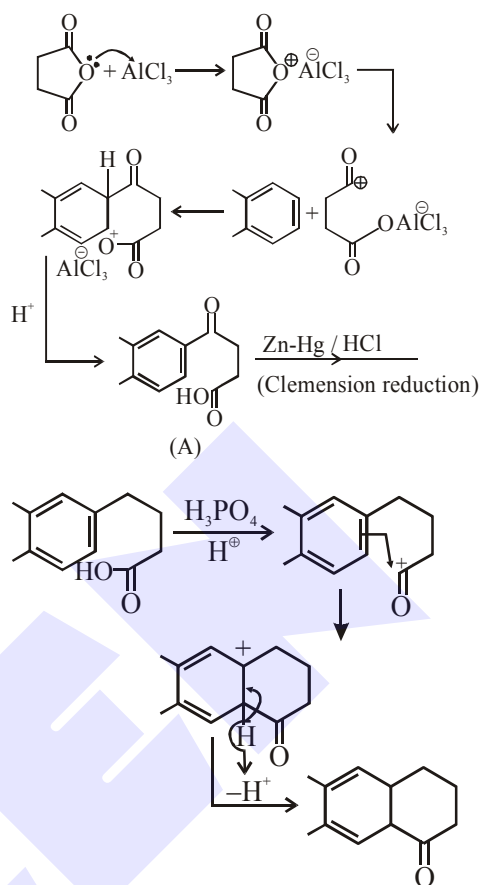


SOLUTION**1. Official Ans. by NTA (3)**

Sol.

**2. Official Ans. by NTA (4)****3. Official Ans. by NTA (3)****4. Official Ans. by NTA (3)****5. Official Ans. by NTA (1)**

Sol.

**6. Official Ans. by NTA (1)**

Sol.

