

Topic : Hydrocarbon
Type of Questions

Single choice Objective ('-1' negative marking) Q.1 to Q.6

Comprehension ('-1' negative marking) Q.7 to Q.9

Subjective Questions ('-1' negative marking) Q.10

(3 marks 3 min.)

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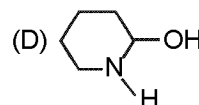
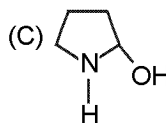
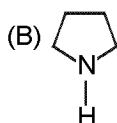
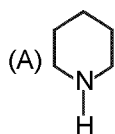
(4 marks 5 min.)

M.M., Min.

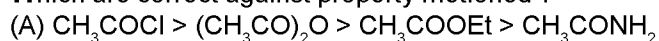
[18, 18]

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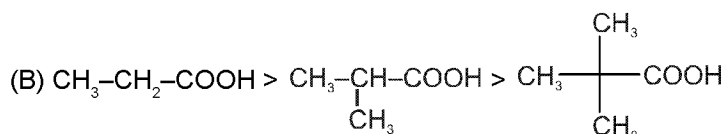
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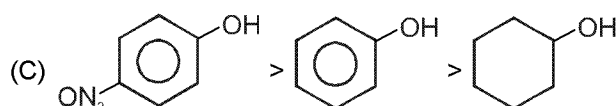
2. Which are correct against property mentioned ?



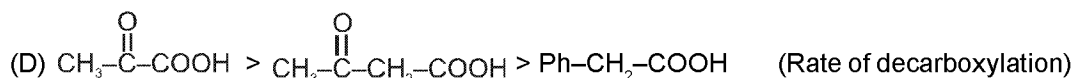
(Rate of hydrolysis)



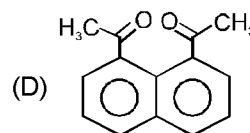
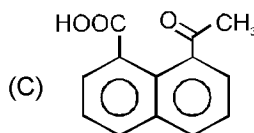
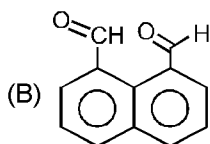
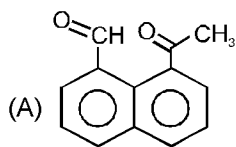
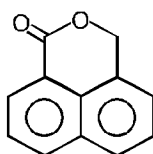
(Rate of esterification)



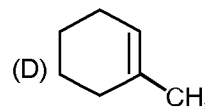
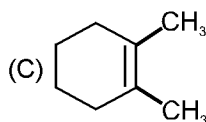
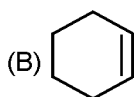
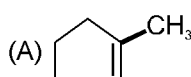
(Rate of esterification)



(Rate of decarboxylation)

3. Which of the following reagent on reaction with conc. NaOH followed by H^+ gives following cyclic ester.

4. Hydrocarbon (X) on ozonolysis followed by treating with Zn-dust and water gives (Y) which on heating with alkali gives 1-acetyl cyclopentene. The structure of (X) is :



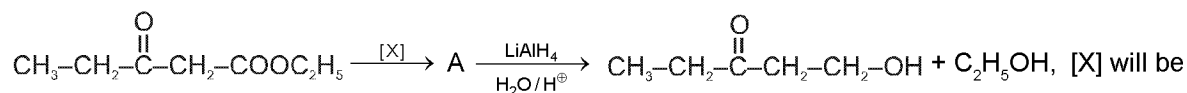
5. Isobutyl alcohol and secondary butyl alcohol can be distinguished by.

(A) Oxidation with alkaline KMnO_4 & tollen's reagent.

(B) Oxidation with acidic dichromate & tollen's reagent

(C) Oxidation by heating with copper followed by reaction with I_2 / OH^- .(D) Oxidation by concentrated H_2SO_4 followed by reaction with fehling solution.

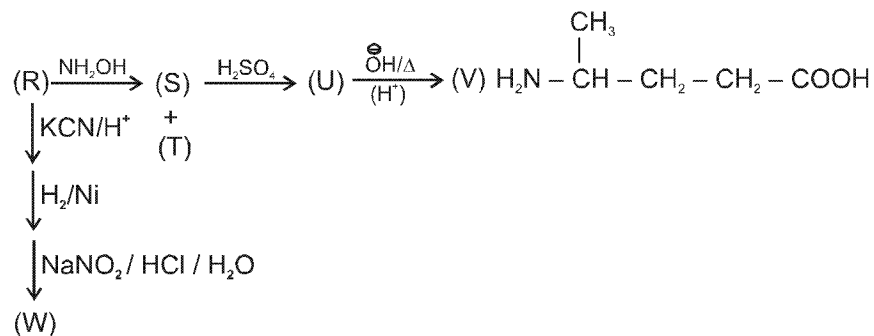
6. In the given reaction



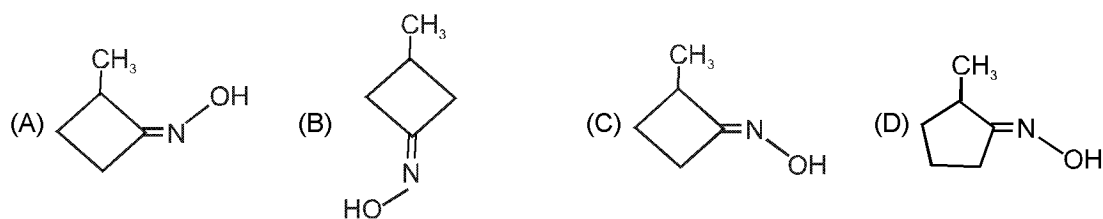
- (A) HCN (B) $\begin{array}{c} \text{CH}_2\text{--OH} \\ | \\ \text{CH}_2\text{--OH} \end{array} + \text{OH}^-$ (C) HCHO (D) $\text{CH}_2 \begin{array}{l} \nearrow \text{CH}_2\text{--SH} \\ \searrow \text{CH}_2\text{--SH} \end{array} + \text{H}^+$

Comprehension # (Q.7 to 9)

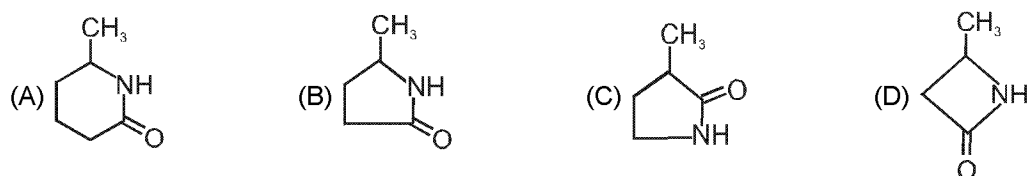
Answer the questions on the basis of following observations



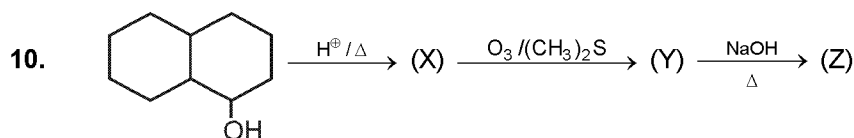
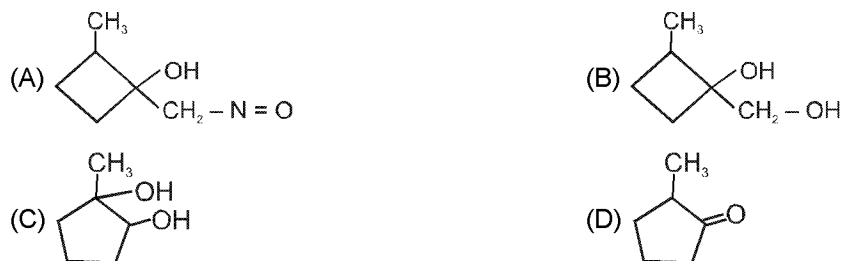
7. The compound (S) is :



8. The compound U is :



9. The compound W is :

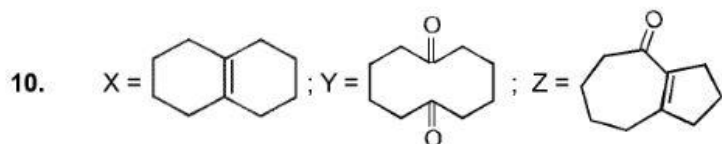


Identify X, Y and Z.

Answer Key

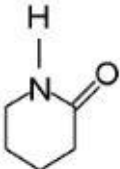
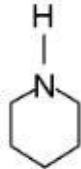
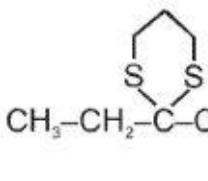
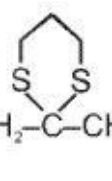
DPP No. # 32

- | | | | | | | | | | |
|----|-----|-----|------|----|-----|----|-----|----|-----|
| 1. | (A) | 2.* | (AB) | 3. | (B) | 4. | (D) | 5. | (C) |
| 6. | (D) | 7. | (C) | 8. | (B) | 9. | (D) | | |



Hints & Solutions

DPP No. # 32

1. $H_2N-(CH_2)_4-COOH \xrightarrow{\Delta}$  $\xrightarrow{LiAlH_4}$ 
6. $CH_3-CH_2-C(=O)-CH_2-C(=O)-OC_2H_5 \xrightarrow[H^+]{CH_2(CH_2-SH)_2}$  $\xrightarrow{LiAlH_4}$
-  $\xrightarrow{H^+} CH_3-CH_2-C(=O)-CH_2-CH_2-OH$
- 8-10. 