ORGANIC CHEMISTRY

DPP

DAILY PRACTICE PROBLEMS

DPP No. 12

Total Marks : 26

Max. Time : 27 min.

Topic : Reduction, Oxidation & Hydrolysis of Organic Compounds

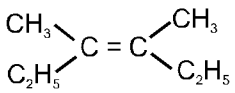
Type of Questions		M.M., Min.
Single choice Objective ('–1' negative marking) Q.1 to Q.6	(3 marks, 3 min.)	[18, 18]
Multiple choice objective ('–1' negative marking) Q.7	(4 marks, 4 min.)	[4, 4]
Subjective Questions ('–1' negative marking) Q.8	(4 marks, 5 min.)	[4, 5]

1. Ozonolysis of a hydrocarbon gives one mole of acetone and one mole of formaldehyde. The hydrocarbon is

(A) Propene
(B) 2-Methylpropene
(C) 2-Methyl-2-butene
(D) 2-Methyl-1-butene

2. An alkene with molecular formula C_8H_{16} on oxidation with hot $KMnO_4$ gives acetone and 3-pentanone. The structure of the alkene is

(A) $(CH_3)_2C = C(C_2H_5)_2$

(B) 

(C) $(C_2H_5)_2C = CHCH_2CH_3$

(D) $(CH_3)_2C = CH(CH_2)_3CH_3$.

3. Products of the following reaction

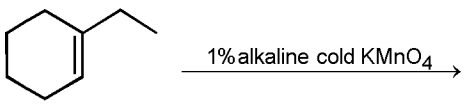
$CH_3C \equiv C.CH_2CH_3 \xrightarrow[(ii)\,Hydrolysis]{(i)\,O_3}$ ... are :

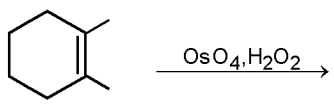
(A) $CH_3CHO + CH_3CH_2CHO$
(B) $CH_3COOH + CH_3COCH_3$
(C) $CH_3COOH + HOOC.CH_2CH_3$
(D) $CH_3COOH + CO_2$

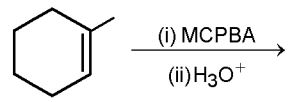
4. The most suitable reagent for the conversion of :
$RCH_2OH \longrightarrow RCHO$ is :

(A) $KMnO_4$
(B) $K_2Cr_2O_7$
(C) CrO_3
(D) PCC (pyridine chloro chromate)

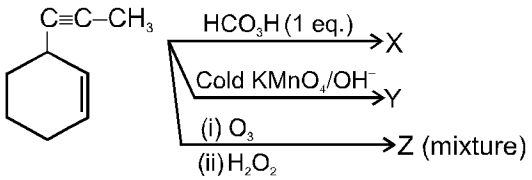
5. Which reaction gives the non-resolvable product :

(A) 

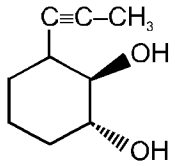
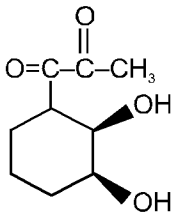
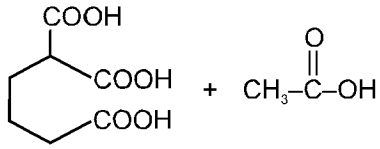
(B) 

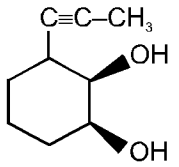
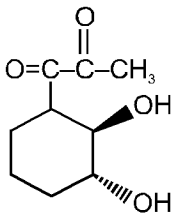
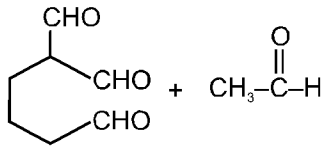
(C) 

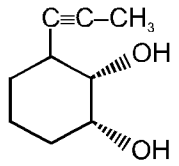
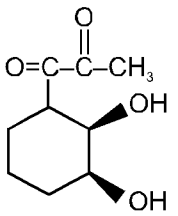
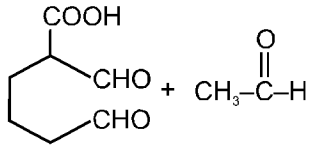
(D) None of these

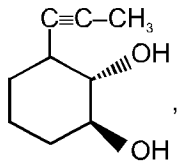
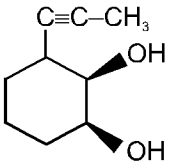
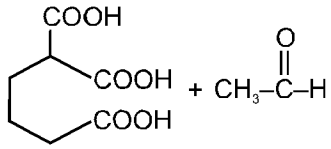
6. 

X, Y & Z are respectively

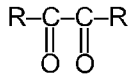
(A)  ,  , 

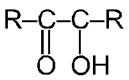
(B)  ,  , 

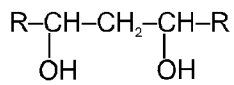
(C)  ,  , 

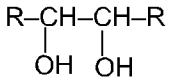
(D)  ,  , 

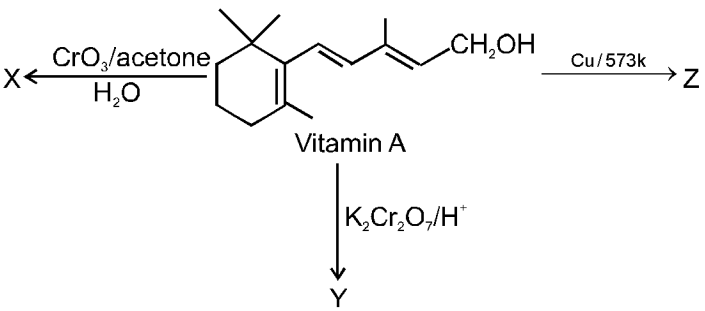
7.* Which of the following will be oxidised by HIO_4

(A) 

(B) 

(C) 

(D) 

8. 

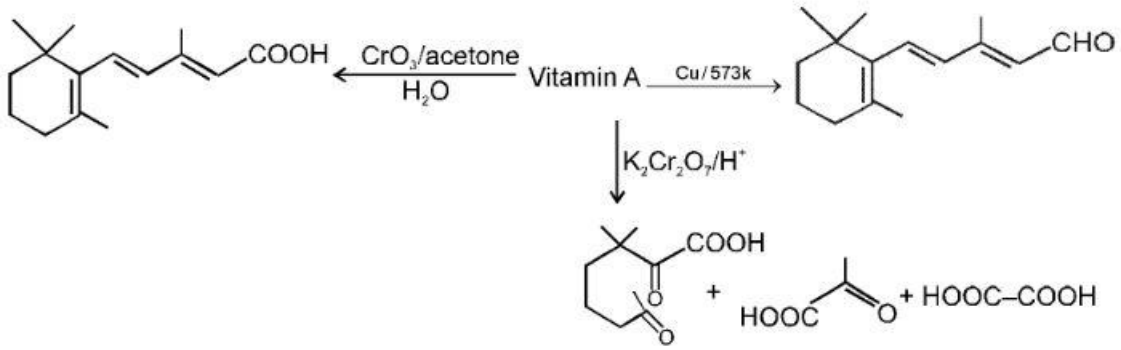
Identify the products.

Answer Key

DPP No. # 12

1.	(B)	2.	(A)	3.	(C)	4.	(D)	5.	(B)
6.	(A)	7.*	(A,B,D)						

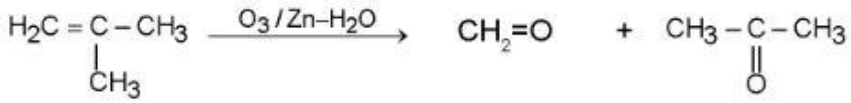
8.



Hints & Solutions

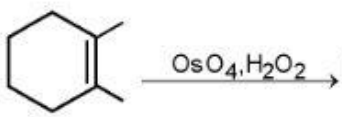
DPP No. # 12

1.



2-Methyl propene Formaldehyde acetone

5.



8.