

RACE # 31

ORGANIC CHEMISTRY

M.M. : 33

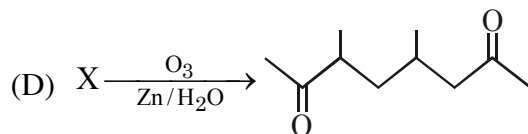
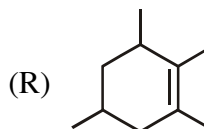
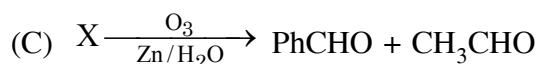
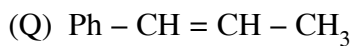
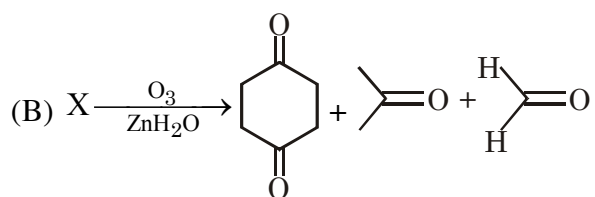
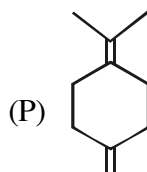
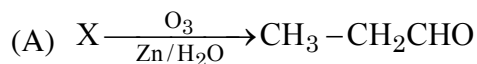
TIME : 20 Min.

1. Match the column :

List - I

List - II

[4, -1]

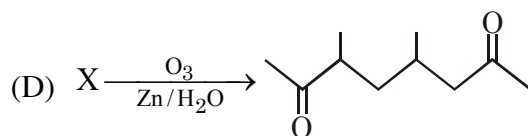
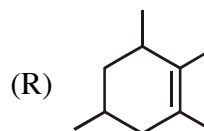
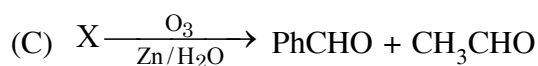
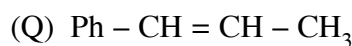
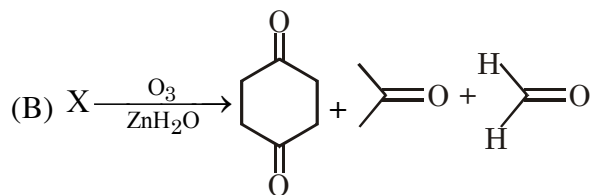
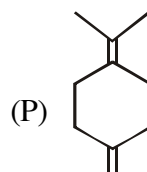
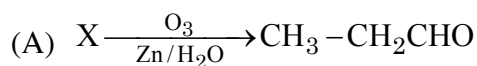


1. स्तम्भों को सुमेलित कीजिए :

स्तम्भों - I

स्तम्भों - II

[4, -1]



Ans. A-S, B-P, C-Q, D-R

2. **Assertion** : Addition of Br_2 to cis-but-2-ene gives racemic mixture.

[3, -1]

Reason : It is electrophilic addition reaction.

- (A) If both Assertion & Reason are True & the Reason is a correct explanation of the Assertion.
 (B) If both Assertion & Reason are True but Reason is not a correct explanation of the Assertion.
 (C) If Assertion is True but the Reason is False.
 (D) If both Assertion & Reason are false.

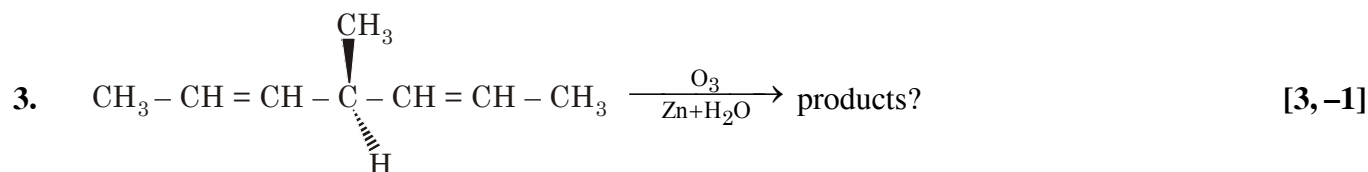
2. **कथन** : सिस-ब्यूट-2 ईन से Br_2 का योग करने पर रेसिमिक मिश्रण बनता है।

[3, -1]

कारण : यह इलेक्ट्रॉनस्नेही योगात्मक अभिक्रिया है।

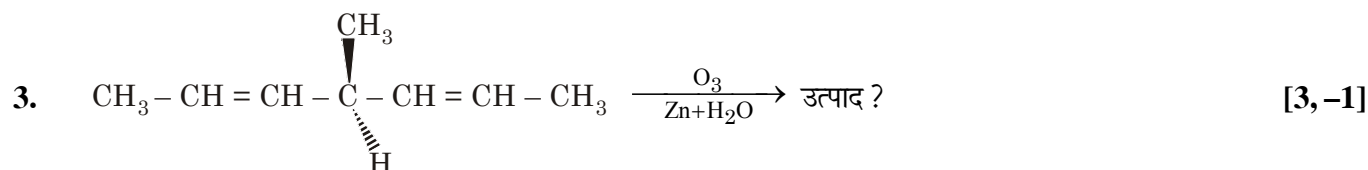
- (A) यदि कथन एवं कारण दोनों सत्य हैं, तथा कारण कथन का सही स्पष्टीकरण है।
 (B) यदि कथन एवं कारण दोनों सत्य हैं, लेकिन कारण, कथन का सही स्पष्टीकरण नहीं है।
 (C) यदि कथन सत्य हैं लेकिन कारण असत्य है।
 (D) कथन व कारण दोनों असत्य हैं।

Ans. (B)



How many optical active product possible by above compound?

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



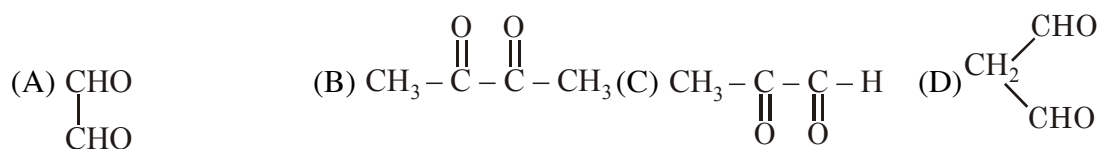
उक्त यौगिक द्वारा कितने प्रकाशिक सक्रिय उत्पाद सम्भव है?

- (A) 2 (B) 3 (C) शून्य (D) 1

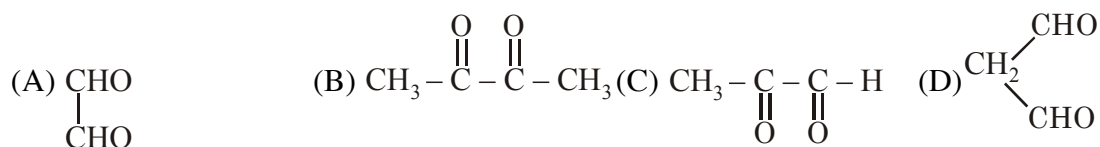
3. Ans. (C)



which of following is not a product of ozonolysis of O-xylene :



निम्न में से कौनसा यौगिक ऑर्थोजाइलिन का ओजोनी अपघटन उत्पाद नहीं है :



4. Ans. (D)



Reactant A is :

- (A) $\text{CH}_2 = \text{CH} - \text{CH} = \text{CH} - \text{CH}_3$ (B) $\text{CH}_3 - \text{CH} = \text{C} = \text{C} = \text{CH} - \text{CH}_3$
(C) $\text{CH}_3 - \text{CH} = \text{CH} - \text{CH} = \text{CH}_2$ (D) $\text{CH}_3 - \text{CH} = \text{C} = \text{CH} - \text{CH}_3$

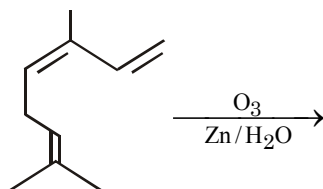


अभिकर्मक A है :

- (A) $\text{CH}_2 = \text{CH} - \text{CH} = \text{CH} - \text{CH}_3$ (B) $\text{CH}_3 - \text{CH} = \text{C} = \text{C} = \text{CH} - \text{CH}_3$
(C) $\text{CH}_3 - \text{CH} = \text{CH} - \text{CH} = \text{CH}_2$ (D) $\text{CH}_3 - \text{CH} = \text{C} = \text{CH} - \text{CH}_3$

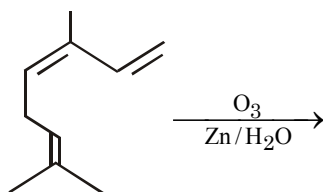
5. Ans. (D)

6. Product of ozonolysis of given compound is/are [4, -1]



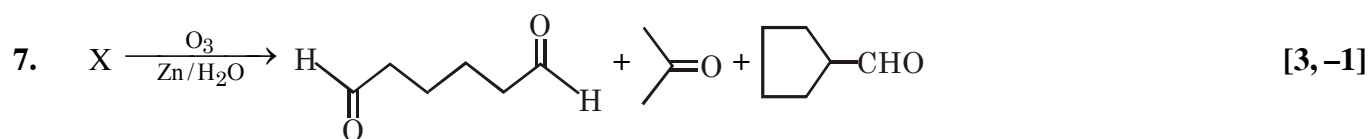
- (A) HCHO (B) $\text{CH}_3 - \overset{\text{O}}{\underset{\text{O}}{\text{C}}} - \text{CH}_3$ (C) $\text{CH}_3 - \overset{\text{O}}{\text{C}} - \text{CHO}$ (D) $\begin{array}{c} \text{CHO} \\ | \\ \text{CH}_2 \\ | \\ \text{CHO} \end{array}$

6. दिये गये यौगिक के ओजोनी अपघटन उत्पाद है/हैं [4, -1]

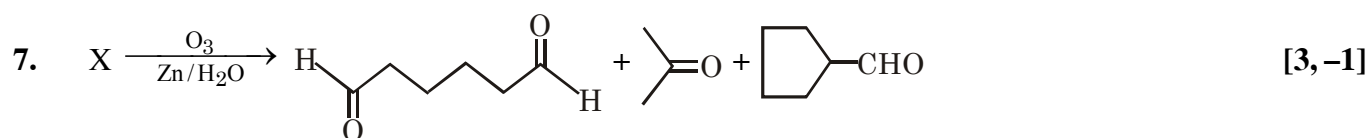
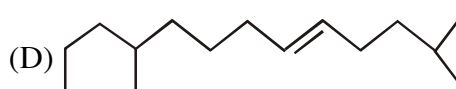
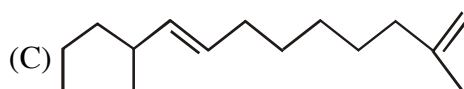
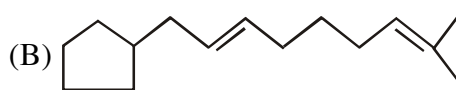
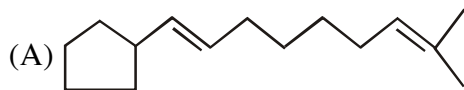


- (A) HCHO (B) $\text{CH}_3 - \overset{\text{O}}{\underset{\text{O}}{\text{C}}} - \text{CH}_3$ (C) $\text{CH}_3 - \overset{\text{O}}{\text{C}} - \text{CHO}$ (D) $\begin{array}{c} \text{CHO} \\ | \\ \text{CH}_2 \\ | \\ \text{CHO} \end{array}$

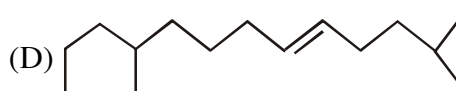
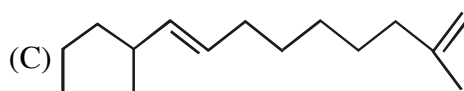
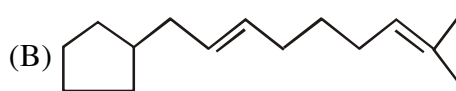
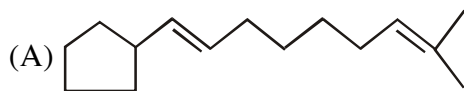
6. Ans. (A, B, C, D)



reactant 'X' is :



अभिकर्मक 'X' है?



7. **Ans. (A)**

8. Monomer [A] of polymer yields two mole of HCHO and one mole $\text{CH}_3-\text{C}(=\text{O})-\text{CHO}$ on ozonolysis.

Degree of unsaturations of A is : [3, -1]

(A) 3

(B) 4

(C) 2

(D) 5

8. बहुलक के एकलक [A] का ओजोनी अपघटन कराने पर एक मोल HCHO तथा एक मोल $\text{CH}_3-\text{C}(=\text{O})-\text{CHO}$ बनता है, A

की असंतृप्तता की कोटि है :

[3, -1]

(A) 3

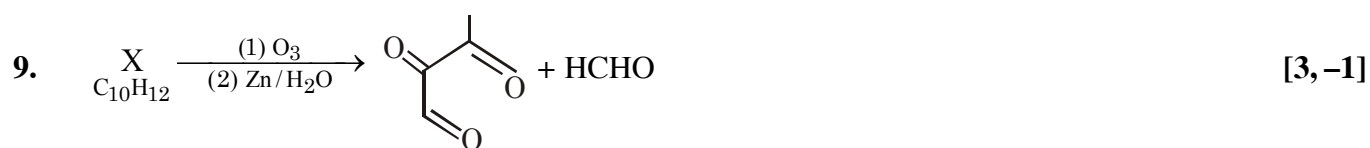
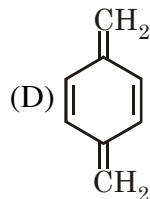
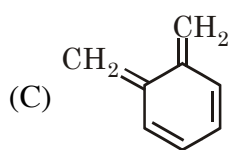
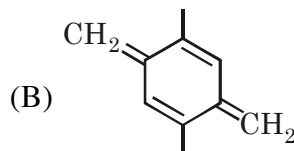
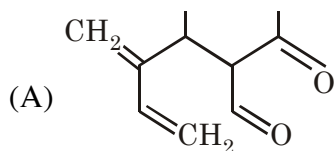
(B) 4

(C) 2

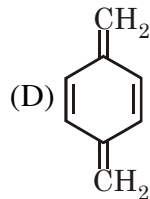
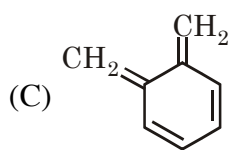
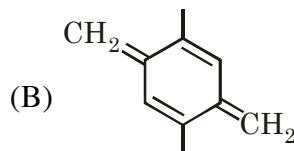
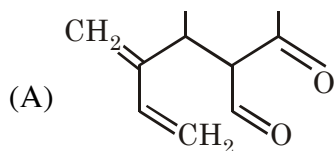
(D) 5



X is :

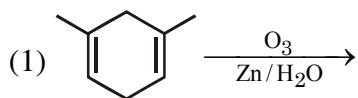


X है :

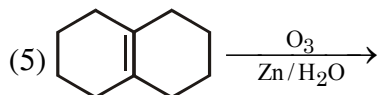
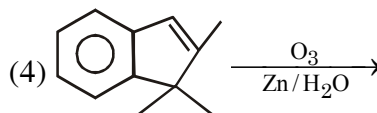
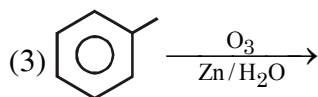


9. Ans. (B)

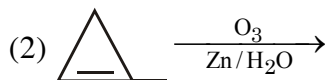
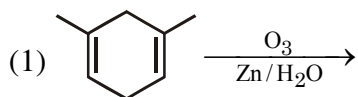
10. How many total product of given reaction has degree of unsaturation less than four



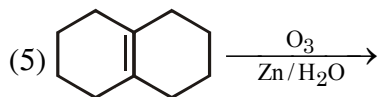
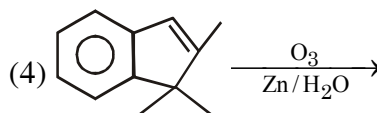
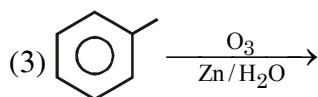
[4, -1]



10. दी गई अभिक्रिया के कितने उत्पादों में असंतृप्तता की कोटि चार से कम है



[4, -1]



10. Ans. (2)

FILL THE ANSWER HERE

1. <table border="1"><tr><td>A</td><td>P</td><td>Q</td><td>R</td><td>S</td><td>T</td></tr><tr><td>B</td><td>P</td><td>Q</td><td>R</td><td>S</td><td>T</td></tr><tr><td>C</td><td>P</td><td>Q</td><td>R</td><td>S</td><td>T</td></tr><tr><td>D</td><td>P</td><td>Q</td><td>R</td><td>S</td><td>T</td></tr></table>	A	P	Q	R	S	T	B	P	Q	R	S	T	C	P	Q	R	S	T	D	P	Q	R	S	T	2. <table border="1"><tr><td>A</td><td>B</td><td>C</td><td>D</td></tr></table>	A	B	C	D	3. <table border="1"><tr><td>A</td><td>B</td><td>C</td><td>D</td></tr></table>	A	B	C	D	4. <table border="1"><tr><td>A</td><td>B</td><td>C</td><td>D</td></tr></table>	A	B	C	D
A	P	Q	R	S	T																																		
B	P	Q	R	S	T																																		
C	P	Q	R	S	T																																		
D	P	Q	R	S	T																																		
A	B	C	D																																				
A	B	C	D																																				
A	B	C	D																																				
5. <table border="1"><tr><td>A</td><td>B</td><td>C</td><td>D</td></tr></table>	A	B	C	D	6. <table border="1"><tr><td>A</td><td>B</td><td>C</td><td>D</td></tr></table>	A	B	C	D	7. <table border="1"><tr><td>A</td><td>B</td><td>C</td><td>D</td></tr></table>	A	B	C	D	8. <table border="1"><tr><td>A</td><td>B</td><td>C</td><td>D</td></tr></table>	A	B	C	D																				
A	B	C	D																																				
A	B	C	D																																				
A	B	C	D																																				
A	B	C	D																																				
9. <table border="1"><tr><td>A</td><td>B</td><td>C</td><td>D</td></tr></table>	A	B	C	D	10. <table border="1"><tr><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr></table>	0	1	2	3	4	5	6	7	8	9																								
A	B	C	D																																				
0	1	2	3	4	5	6	7	8	9																														