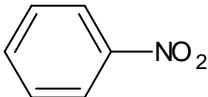
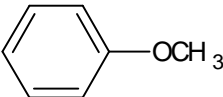
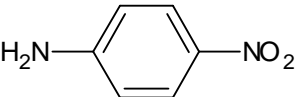
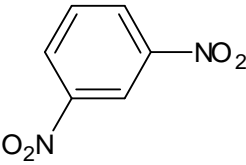
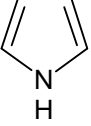
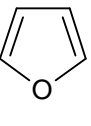
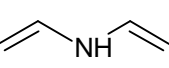


SINGLE CORRECT OPTION TYPE

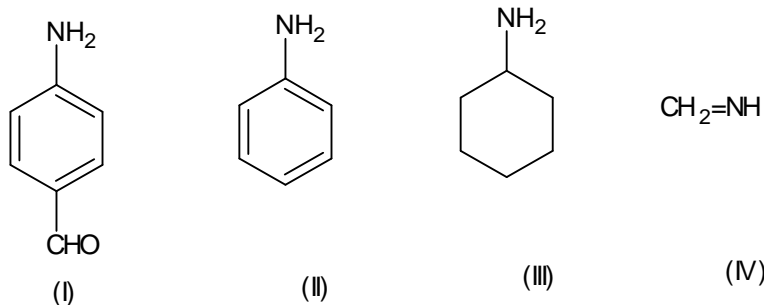
- Which of the following belongs to +I group?  
(A)  $-\text{OH}$  (B)  $-\text{OCH}_3$  (C)  $-\text{COOH}$  (D)  $-\text{CH}_3$
- The species  $\text{CH}_3 - \overset{+}{\text{C}}\text{H} - \text{CH}_3$  is less stable than  
(A)  $(\text{CH}_3)_3\overset{+}{\text{C}}$  (B)  $\text{CH}_3 - \text{CH}_2 - \overset{+}{\text{C}}\text{H}_2$  (C)  $\text{CH}_3 - \overset{+}{\text{C}}\text{H}_2$  (D)  $\overset{+}{\text{C}}\text{H}_3$
- The decreasing order of stability of cations  
 $\text{H}_3\text{C} - \overset{+}{\text{C}}\text{H} - \text{CH}_3$  (I)       $\text{H}_3\text{C} - \overset{+}{\text{C}}\text{H} - \text{O} - \text{CH}_3$  (II)       $\text{H}_3\text{C} - \overset{+}{\text{C}}\text{H} - \text{CO} - \text{CH}_3$  (III)  
(A)  $\text{III} > \text{II} > \text{I}$  (B)  $\text{II} > \text{I} > \text{III}$  (C)  $\text{I} > \text{II} > \text{III}$  (d)  $\text{I} > \text{III} > \text{II}$
- Different hydrogens in following molecule are represented by alphabets. Arrange them in the order of reactivity towards radical substitution.  

A	B	C	D	E	F
$\text{CH}_3\text{CH}=\text{CH}-\text{CH}_2-\text{CH}_2-\text{CH}(\text{CH}_3)_2$					
(A) $\text{C} > \text{A} > \text{E} > \text{D} > \text{F} > \text{B}$			(B) $\text{F} > \text{B} > \text{A} > \text{C} > \text{D} > \text{E}$		
(C) $\text{B} > \text{C} > \text{A} > \text{F} > \text{D} > \text{E}$			(D) $\text{A} > \text{B} > \text{C} > \text{D} > \text{E} > \text{F}$		
- In which of the following molecule, the  $\pi$ -electron density is minimum in ring?  

			
(A)	(B)	(C)	(D)
- The decreasing order of resonance energy of  

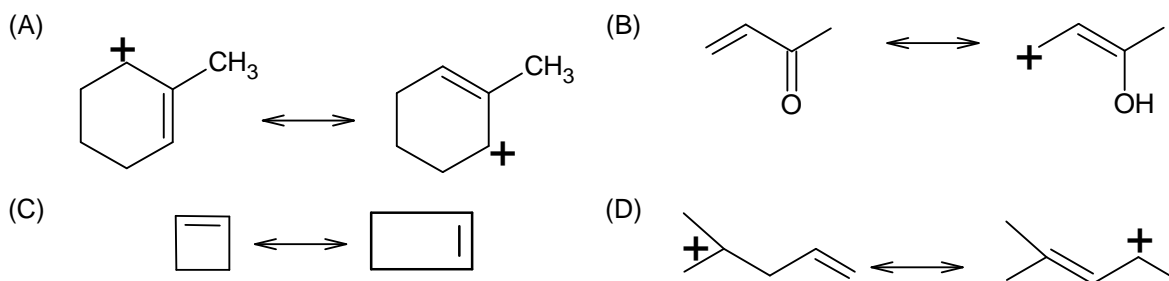
			
I	II	III	
(A) $\text{III} > \text{I} > \text{II}$	(B) $\text{I} > \text{II} > \text{III}$	(C) $\text{II} > \text{III} > \text{I}$	(D) $\text{II} > \text{I} > \text{III}$
- Which of the following is not a planar molecule?  
(A)  $\text{H}_2\text{C} = \text{C} = \text{CH}_2$  (B)  $\text{H}_2\text{C} = \text{C} = \text{C} = \text{CH}_2$   
(C)  $\text{H}_2\text{C} = \text{C} = \text{O}$  (D)  $\text{NC} - \text{HC} = \text{CH} - \text{CN}$
- Which of the following molecule has longest  $\text{C} = \text{C}$  length?  
(A)  $\text{CH}_2 = \text{C} = \text{CH}_2$  (B)  $\text{CH}_3 - \text{CH} = \text{CH}_2$   
(C)  $\text{CH}_3 - \overset{\text{CH}_3}{\underset{\text{CH}_3}{\text{C}}} - \text{CH} = \text{CH}_2$  (D)  $\text{CH}_3 - \overset{\text{CH}_3}{\text{C}} - \text{CH}_2$

9. Among the following compounds the correct order of C–N bond length is

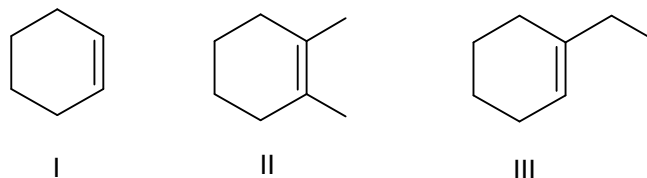


- (A)  $IV > I > II > III$  (B)  $III > I > II > IV$  (C)  $III > II > I > IV$  (D)  $III > I > IV > II$

10. Which of the following is pair of resonance structures.

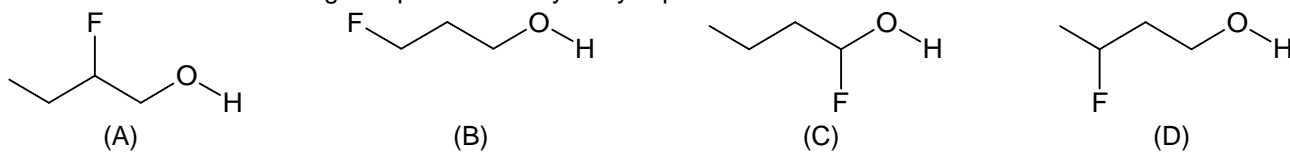


11. Arrange the following in increasing order of stability.

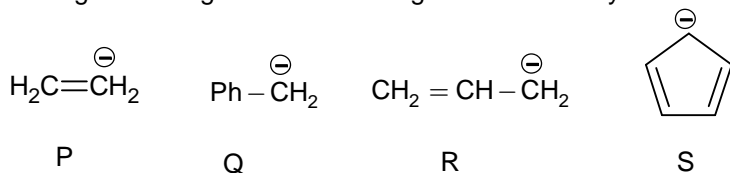


- (A)  $I < II < III$  (B)  $II < I < III$  (C)  $I < III < II$  (D)  $II < III < I$

12. In which of the following compounds the hydroxylic proton is most acidic?

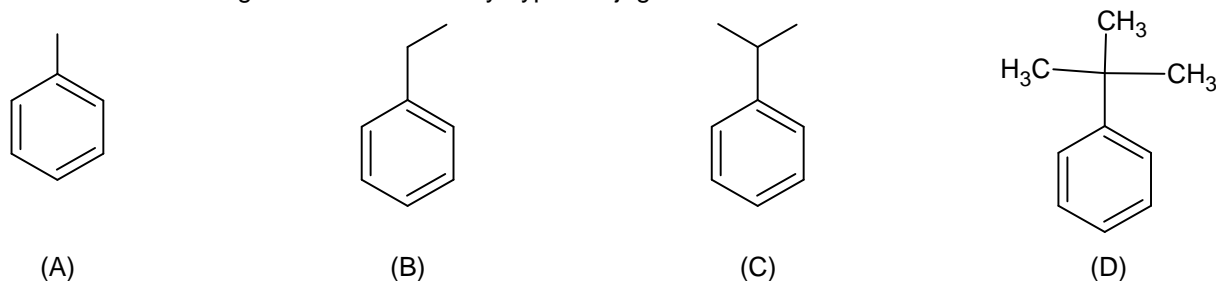


13. Arrange following in the decreasing order of stability.

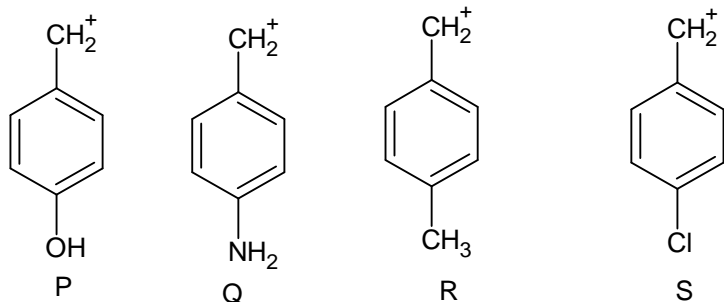


- (A)  $P > Q > R > S$  (B)  $S > Q > P > R$  (C)  $S > Q > R > P$  (D)  $Q > S > R > P$

14. Which of the following is most stabilized by hyperconjugation.

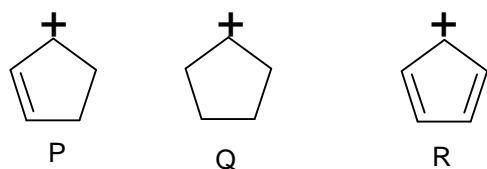


15. The decreasing order of stability of



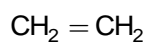
- (A)  $P > Q > R > S$     (B)  $Q > S > R > P$     (C)  $Q > P > S > R$     (D)  $Q > P > R > S$

16. The increasing order of stability of

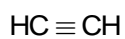


- (A)  $P > Q > R$     (B)  $P < Q < R$     (C)  $R < Q < P$     (D)  $R > Q > P$

17. Which of the following contains most acidic 'H'



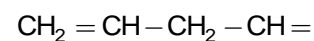
(A)



(B)

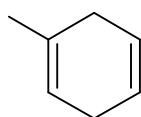


(C)

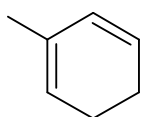


(D)

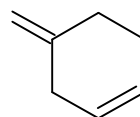
18. Most stable structure among



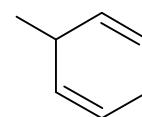
(A)



(B)

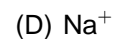
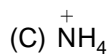
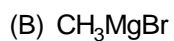
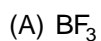


(C)

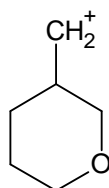


(D)

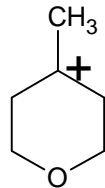
19. Which of the following is electrophile.



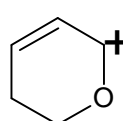
20. Identify most stable structure among



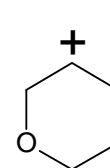
(A)



(B)



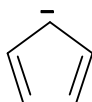
(C)



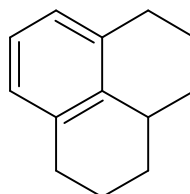
(D)

## NUMERICAL BASED

21. Number of  $\pi$  - electrons in

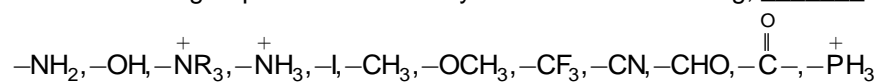


22. Number of benzylic hydrogen atoms in

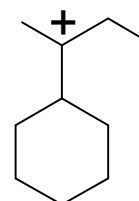


23. The degree of unsaturation in naphthalene \_\_\_\_\_

24. The number of groups which show only inductive effect among, \_\_\_\_\_



25. The total number of contributing structures showing hyperconjugation in



## KEY

1.	D	2.	A	3.	B	4.	A	5.	D
6.	B	7.	A	8.	D	9.	C	10.	A
11.	C	12.	C	13.	C	14.	A	15.	D
16.	C	17.	C	18.	B	19.	A	20.	C
21.	6	22.	5	23.	7	24.	4	25.	6

*\* Wish You all the Best \**