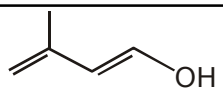
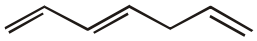
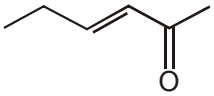
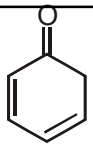
DPP NO- 1 Time: 15 minutes

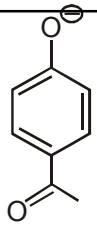
1. Draw Resonance hybrid of the following compounds:-

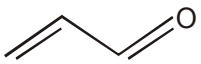
(1) 

(2) 

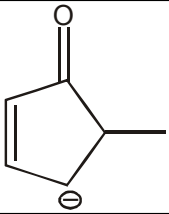
(3) 

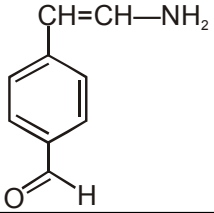
(4) 

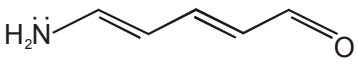
(5) 

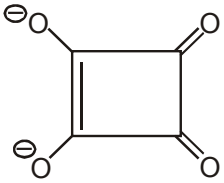
(6) 

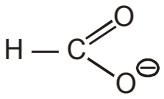
(7) $H_2C = C - NH - CH_3$

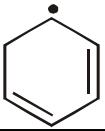
(8) 

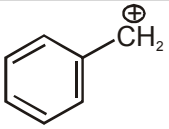
(9) 

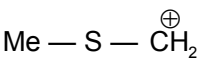
(10) 

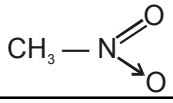
(11) 

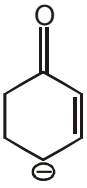
(12) 

(13) 

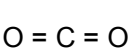
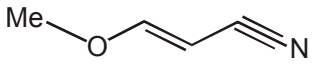
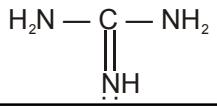
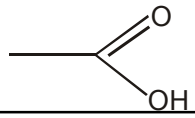
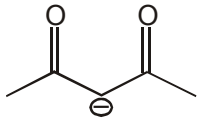
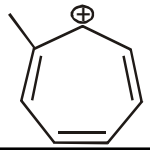
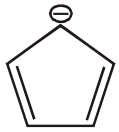
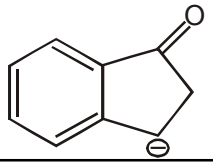
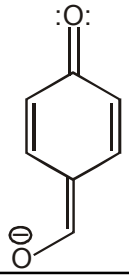
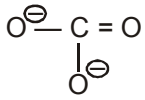
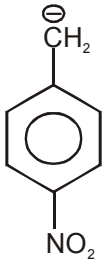
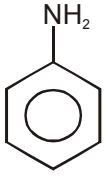
(14) 

(15) 

(16) 

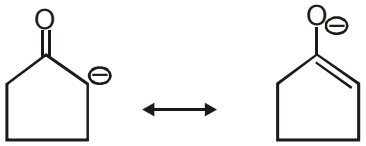
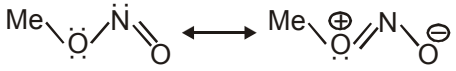
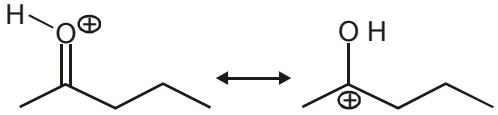
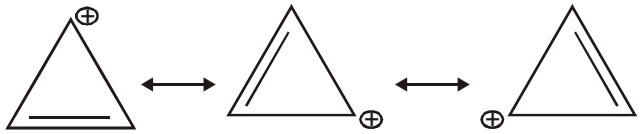
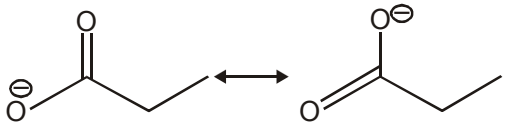
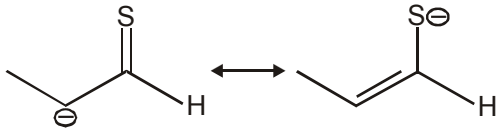
(17) 

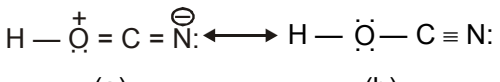
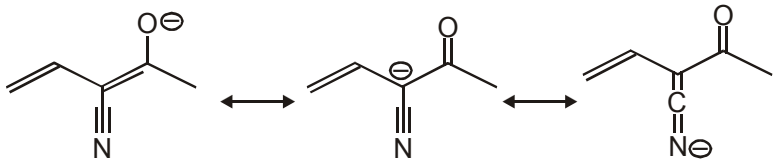
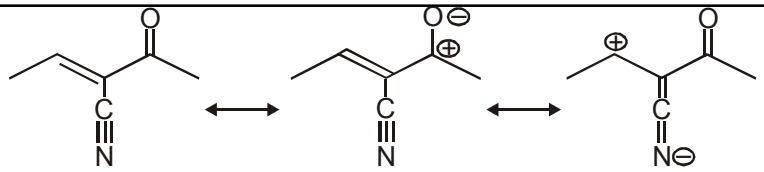
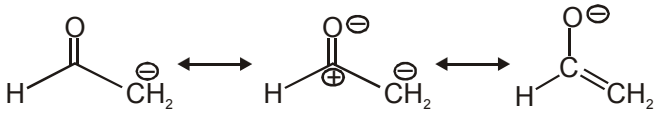
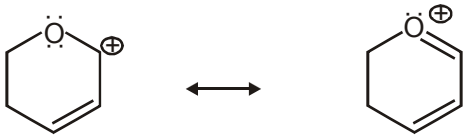
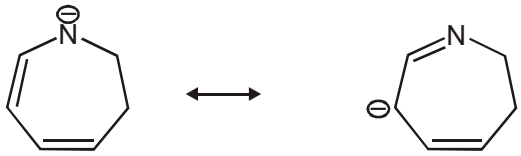
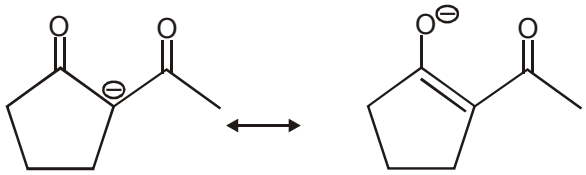
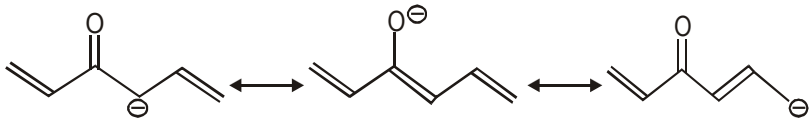
(18) $H_2\dot{N} - C \equiv N:$

(19) 	(20) 
(21) 	(22) 
(23) 	(24) 
(25) 	(26) 
(27) 	(28) 
(29) 	(30) 
(31) 	(32) 

DPP NO- 2 Time: 15 minutes

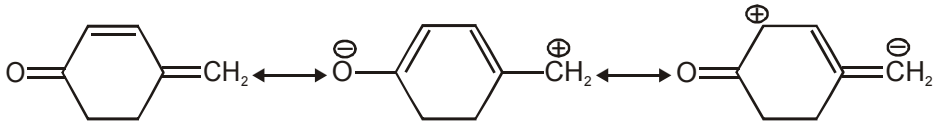
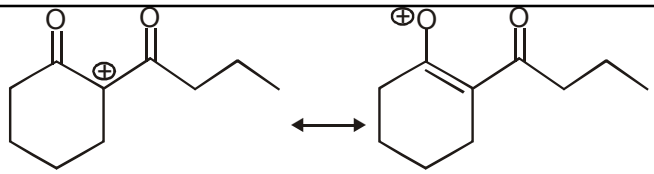
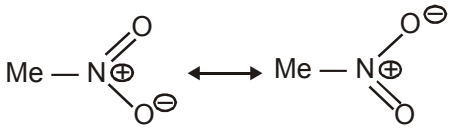
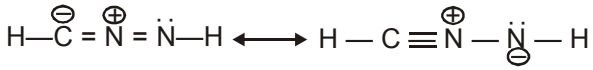
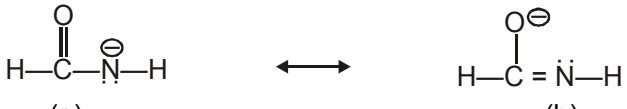
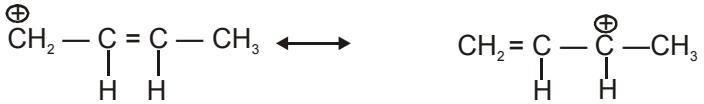
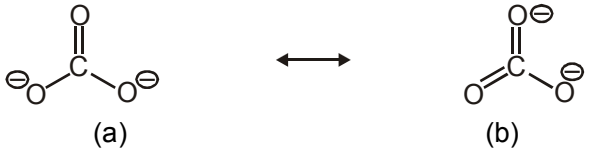
1. Compare relative stability of following resonating strutures

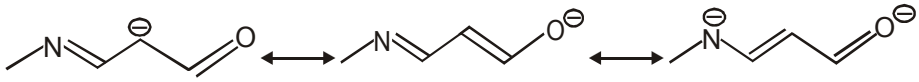
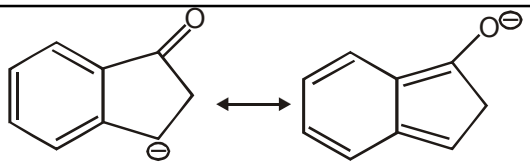
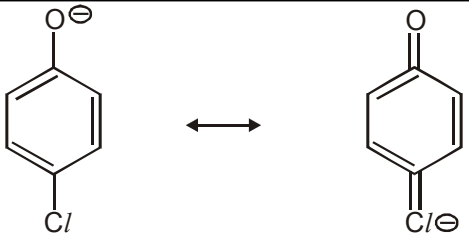
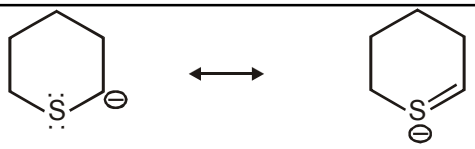
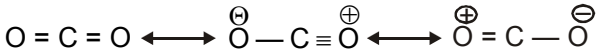
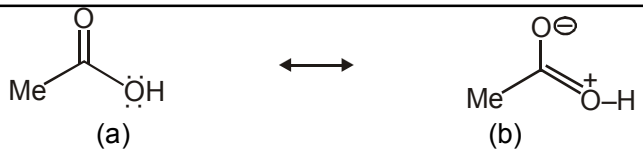
S.No.	Resonanting structures	Order of stability	Reason
(1)	$H_2C = CH - Cl \longleftrightarrow H_2C^{\ominus} - CH = Cl^{\oplus}$ (a) (b)		
(2)	 (a) (b)		
(3)	$\overset{\ominus}{C}H_2 - CH = NH \longleftrightarrow H_2C = CH - \overset{\ominus}{N}H$ (a) (b)		
(4)	$CH_3 - O - \overset{\oplus}{C}H_2 \longleftrightarrow CH_3 - \overset{\oplus}{O} = CH_2$ (a) (b)		
(5)	$H - N = C = O \longleftrightarrow H - \overset{\oplus}{N} \equiv C - \overset{\ominus}{O} \longleftrightarrow H - \overset{\ominus}{N} - C \equiv \overset{\oplus}{O}$ (a) (b) (c)		
(6)	 (a) (b)		
(7)	 (a) (b)		
(8)	 (a) (b) (c)		
(9)	 (a) (b)		
(10)	 (a) (b)		

S.No.	Resonanting structures	Order of stability	Reason
(11)	 (a) (b)		
(12)	 (a) (b) (c)		
(13)	 (a) (b) (c)		
(14)	 (a) (b) (c)		
(15)	 (a) (b)		
(16)	 (a) (b)		
(17)	 (a) (b)		
(18)	 (a) (b)		
(19)	 (a) (b) (c)		

DPP NO- 3 Time: 15 minutes

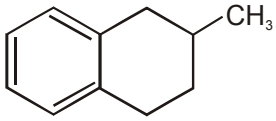
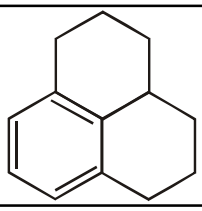
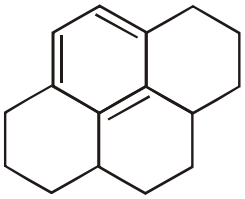
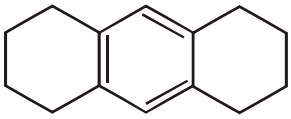
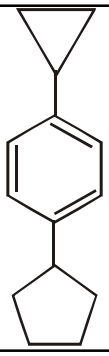
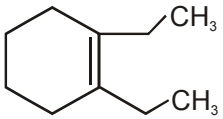
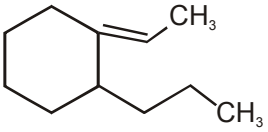
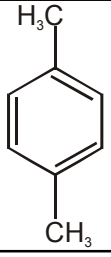
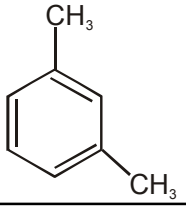
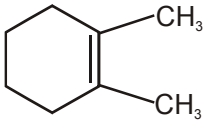
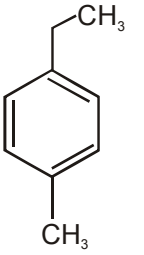
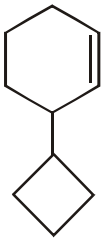
1. Compare relative stability of following resonating strutures

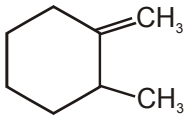
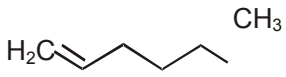
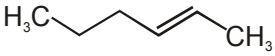
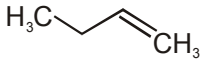
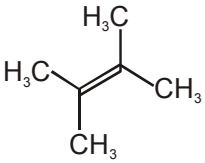
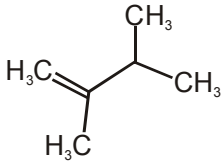
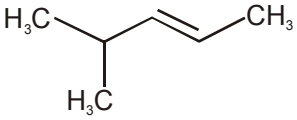
S.No.	Resonanting structures	Order of stability	Reason
(1)	 (a) (b) (c)		
(2)	 (a) (b)		
(3)	 (a) (b)		
(4)	 (a) (b)		
(5)	 (a) (b)		
(6)	 (a) (b)		
(7)	 (a) (b)		
(8)	 (a) (b)		
(9)	 (a) (b)		
(10)	 (a) (b)		

S.No.	Resonanting structures	Order of stability	Reason
(11)	 (a) (b)		
(12)	 (a) (b) (c)		
(13)	 (a) (b)		
(14)	 (a) (b)		
(15)	 (a) (b)		
(16)	 (a) (b)		
(17)	 (a) (b)		
(18)	 (a) (b) (c)		
(19)	 (a) (b)		
(20)	 (a) (b)		

DPP NO-4 Time: 15 minutes

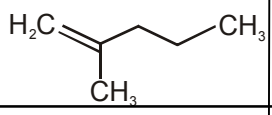
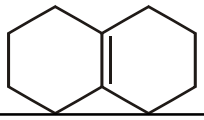
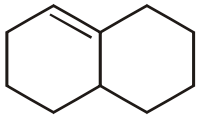
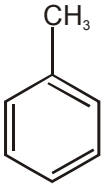
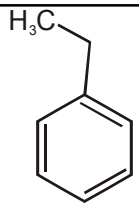
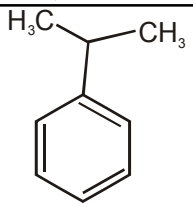
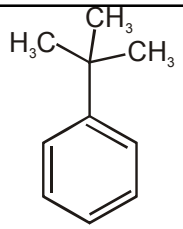
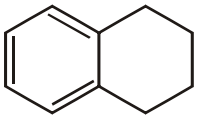
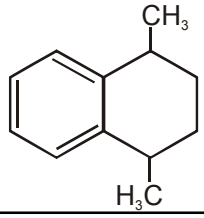
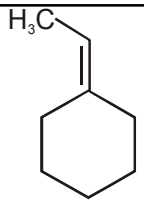
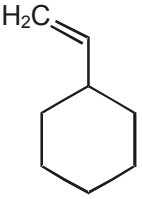
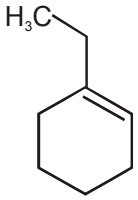
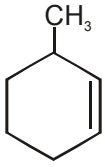
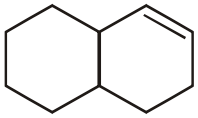
1. Identify no. of α-hydrogen in the following compounds

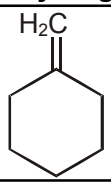
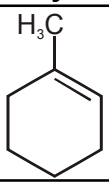
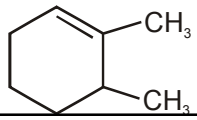
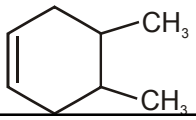
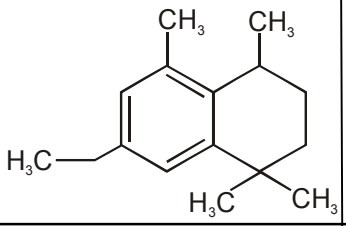
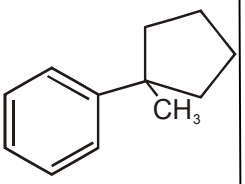
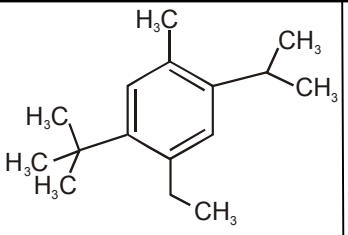
No of α-hydrogen		**No. of α-hydrogen**	
(1) 		(2) 	
(3) 		(4) 	
(5) 		(6) 	
(7) 		(8) 	
(9) 		(10) 	
(11) 		(12) 	

No of α-hydrogen		No. of α-hydrogen	
(13) 		(14) 	
(15) 		(16) 	
(17) 		(18) 	
(19) 		(20) 	

DPP NO- 5 Time: 15 minutes

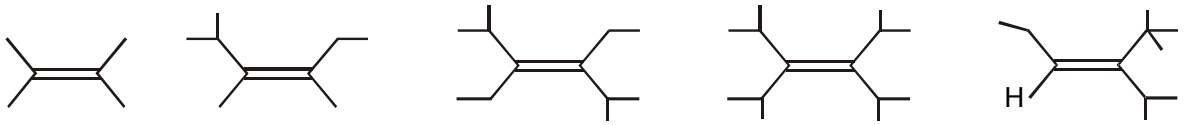
1. Identify no. of α-hydrogen in the following compounds

	No of α-hydrogen		**No. of α-hydrogen**
(1) 		(2) 	
(3) 		(4) 	
(5) 		(6) 	
(7) 		(8) 	
(9) 		(10) 	
(11) 		(12) 	
(13) 		(14) 	

No of α-hydrogen		No. of α-hydrogen	
(15) 		(16) 	
(17) 		(18) 	
(19) 		(20) 	
(20) 			

DPP NO- 6 Time: 15 minutes

Q.1 Given the relative Stability of the following compound

1. 

(i) ii) (iii) (iv) (v)

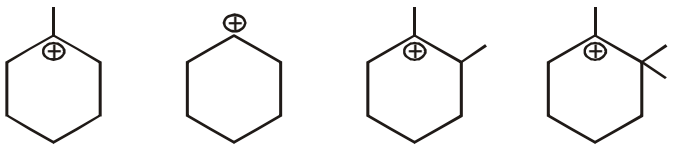
2. $Ph-CH_2-CH=CH-\underset{\underset{Me}{|}}{\overset{Me}{\overset{|}{C}}}-Me$ (i)

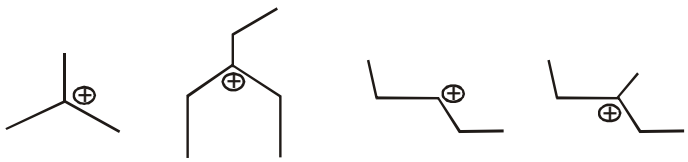
$Me-\underset{Me}{\overset{|}{CH}}-CH=CH-\underset{\underset{Me}{|}}{\overset{Me}{\overset{|}{C}}}-Me$ (ii)

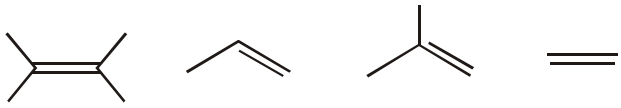
$PH-CH=CH-\underset{\underset{Me}{|}}{\overset{Me}{\overset{|}{C}}}-Me$ (iii)

$Me-\underset{Me}{\overset{Me}{\overset{|}{C}}}-HC=CH-\underset{\underset{Me}{|}}{\overset{Me}{\overset{|}{C}}}-Me$ (iv)

3. $Me-\underset{Me}{\overset{|}{CH}}-\overset{\oplus}{CH}-CH_3$ (i) $Me-CH_2^{\oplus}$ (ii) $\overset{\oplus}{C}H_3$ (iii) $Me-\underset{Me}{\overset{Me}{\overset{|}{C}}}-CH_2^{\oplus}$ (iv)

4. 
(i) (ii) (iii) (iv)

5. 
(i) (ii) (iii) (iv)

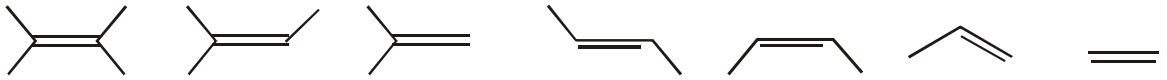
6. 
(i) (ii) (iii) (iv)

7. $H_2C=C=CH_2$ (i) $Me-CH=CH_2$ (ii)  (iii) (iv)

DPP NO- 7 Time: 15 minutes

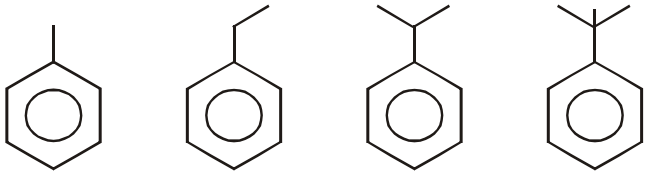
Q.1 Given the relative Stability of the following compound

1.



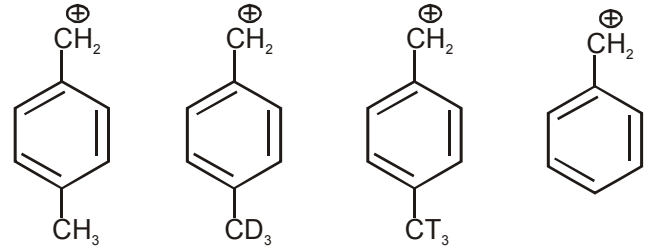
(i) (ii) (iii) (iv) (v) (vi) (vii)

2.



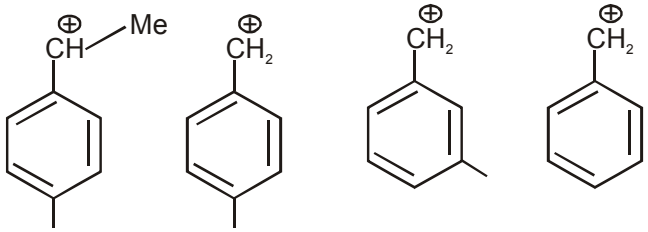
(i) (ii) (iii) (iv)

3.



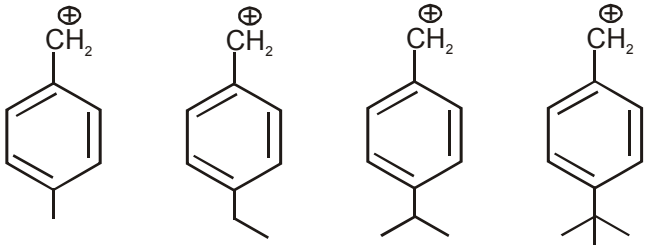
(i) (ii) (iii) (iv)

4.



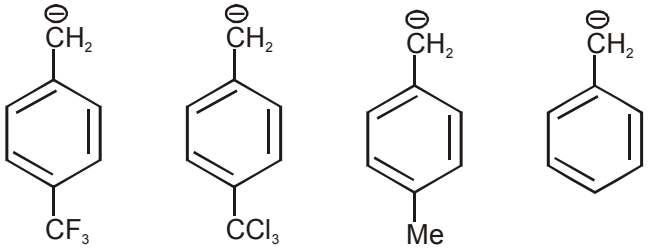
(i) (ii) (iii) (iv)

5.



(i) (ii) (iii) (iv)

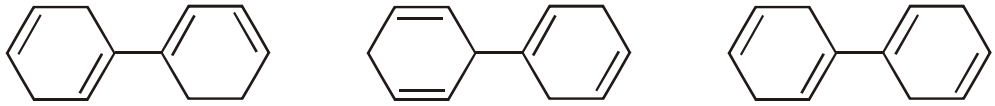
6.

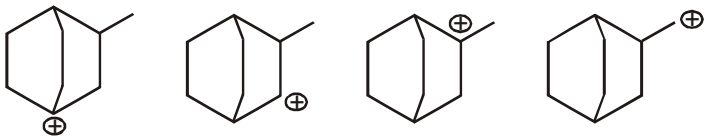


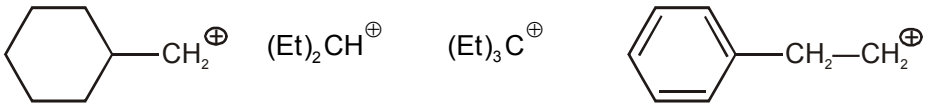
(i) (ii) (iii) (iv)

DPP NO- 8 Time: 15 minutes

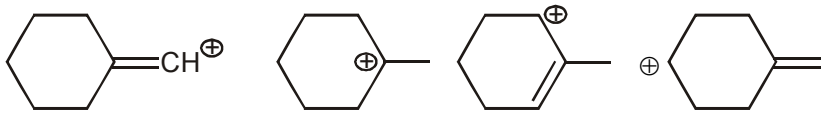
Q.1 Given the relative Stability of the following compound

1. 
(i) (ii) (iii)

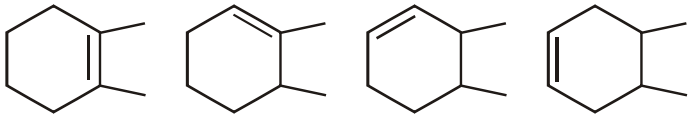
2. 
(i) (ii) (iii) (iv)

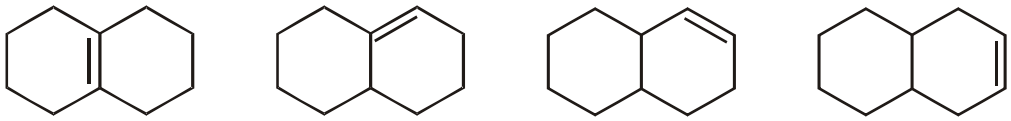
3. 

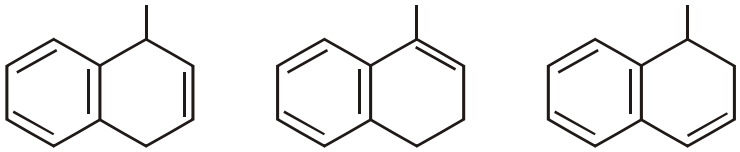
(i) (ii) (iii) (iv)

4. 

(i) (ii) (iii) (iv)

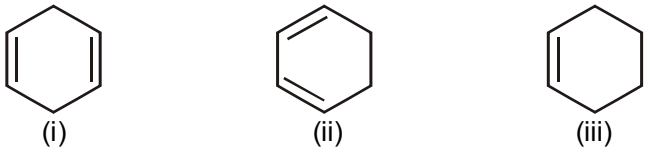
5. 
(i) (ii) (iii) (iv)

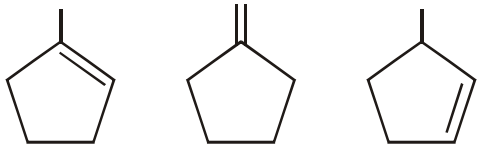
6. 
(i) (ii) (iii) (iv)

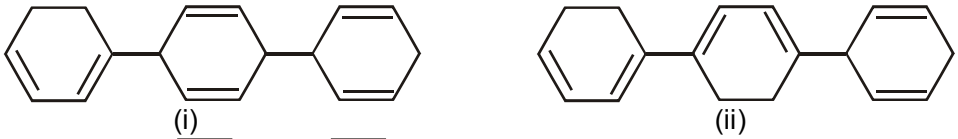
7. 
(i) (ii) (iii)

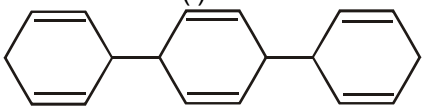
DPP NO- 9 Time: 15 minutes

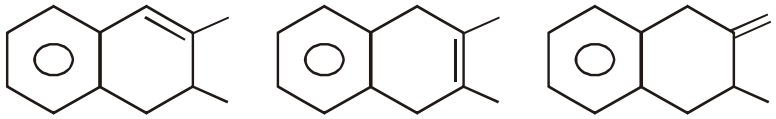
Q.1 Given the relative Stability of the following compound

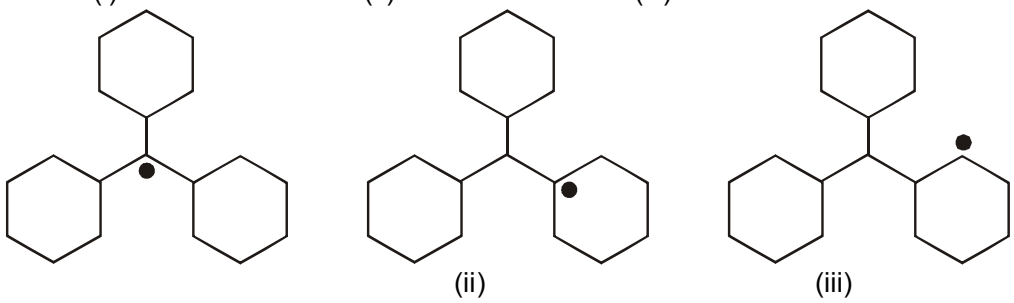
1. 
(i) (ii) (iii)

2. 
(i) (ii) (iii)

3. 
(i) (ii)


(iii)

4. 
(i) (ii) (iii)


(i) (ii) (iii)

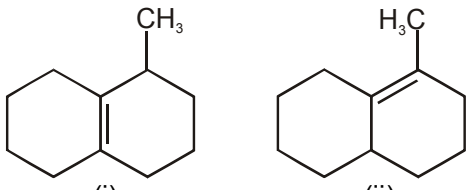
$H_3C - CH_2 - C \equiv CH$

(i) (ii)

7. 
(i) (ii) (iii)

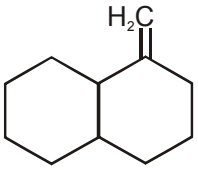
$H_3C - C \equiv C - CH_3$

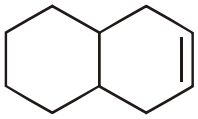
(iv)

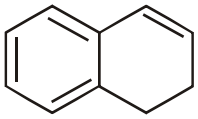
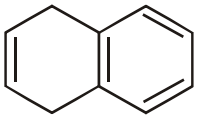
8. 
(i)

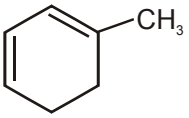
(ii)

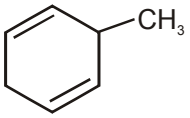
Q.1 Given the relative Stability of the following compound

1. 

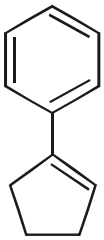
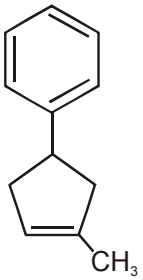
(i)

(ii)

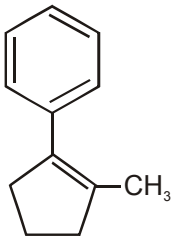
2. 
(i)

(ii)

3. 

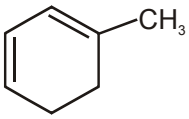
(i)


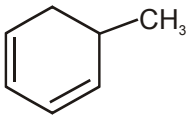
(ii)

4. 
(i)


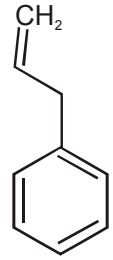
(ii)


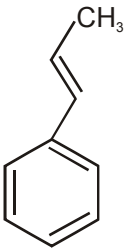
(iii)

5. 

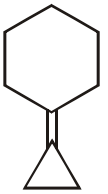
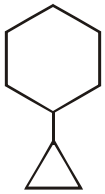
(i)


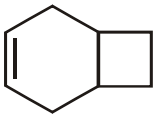
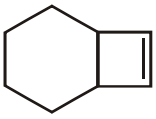
(ii)

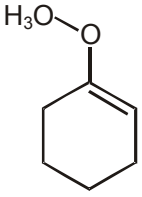
6. 

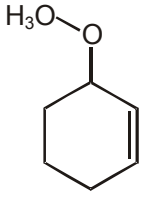
(i)


(ii)

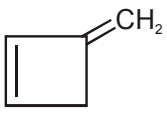
7. 
(i)

(ii)

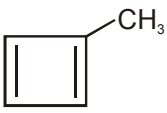
8. 
(i)

(ii)

9. 

(i)


(ii)

10. 

(i)


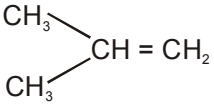
(ii)

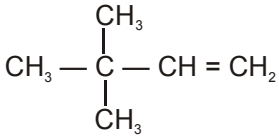
Q.2 Hyperconjugation involves
(A) Delocalization of s-electrons into an adjacent p-bond.
(B) Delocalization of n-electrons into an adjacent double bond.
(C) Delocalization of π-electrons into an adjacent double bond.
(D) All are true

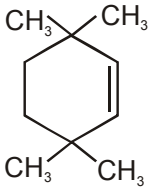
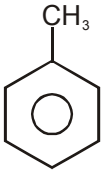
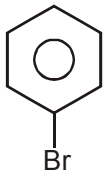
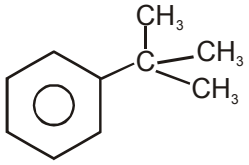
DPP NO- 11 Time: 15 minutes

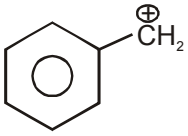
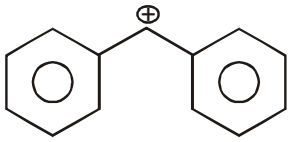
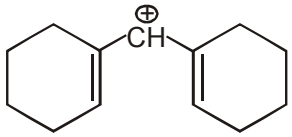
Q.1 Hyperconjugation is possible in
(A) alkenes (B) alkynes (C) carbocations (D) all of these

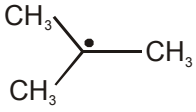
Q.2 Hyperconjugation is possible in
(A) Free radicals (B) Carbanions (C) Alcohols (D) Amines

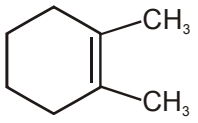
Q.3 Hyperconjugation occurs in
(A) $CH_3 — CH = CH_2$ (B) $CH_3 — CH_2 — CH = CH_2$
(C)  (D) all ot these

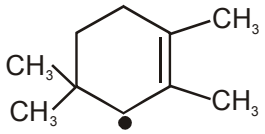
Q.4 Hyperconjugation occurs in
(A)  (B) $CH_3 — CH = CH — CH_3$
(C) $Ph — CH = CH_2$ (D) $\overset{\oplus}{C}H_3$

Q.5 Hyperconjugation occurs in
(A)  (B)  (C)  (D) 

Q.6 Hyperconjugation occurs in
(A)  (B) 
(C)  (D) all of these

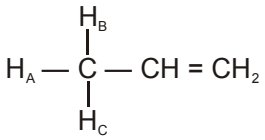
Q.7 Hyperconjugation occurs in
(A) $\dot{C}H_3$ (B) $CH_3 - \dot{C}H_2$ (C)  (D) both (B) and (C)

Q.8 
How many hyperconjugable H-atoms does this cation has?
(A) 10 (B) 6 (C) 12 (D) 15

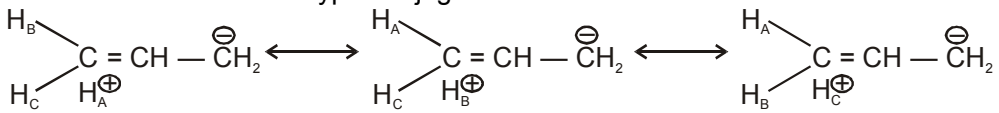
Q.9 

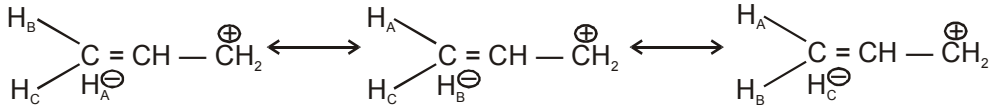
How many hyperconjugable H-atoms does this cation has?

(A) 5 (B) 6 (C) 12 (D) 8

Q.10 

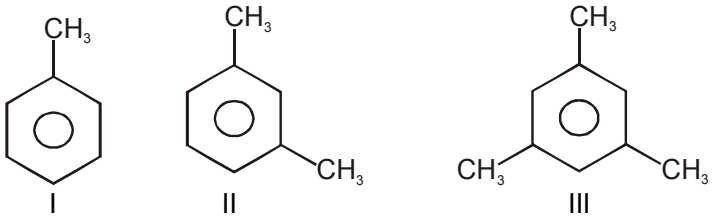
Canonical structures due to hyperconjugation in this molecules can be written as

(A) 

(B) 

(C) both (A) and (B)

(D) none of these

Q.11 

Among these compounds, which of the following orders is correct for their nobond-resonance energy?

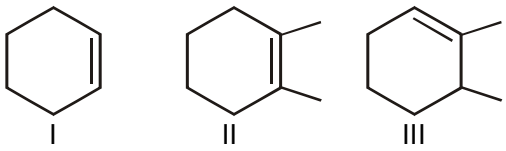
(A) III > II > I (B) I > II > III (C) I > III > II (D) II > III > I

Q.12

Compound	Homolytic bond dissociation energy
$CH_4 \rightarrow \dot{C}H_3 + \dot{H}$	104 Kcal/mol
$CH_3-CH(CH_3)_2 \rightarrow CH_3-\dot{C}(CH_3)_2 + \dot{H}$	92 Kcal/mol

Notice the hemolytic bond-dissociation energy of the alkanes. Now, ignoring the contribution of inductive effect, no-bond-resonance energy of tert-butyl radical can be calculated to be

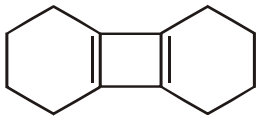
(A) 6 Kcal/mol (B) 10 Kcal/mol (C) 12 Kcal/mol (D) 14 Kcal/mol

Q.13 

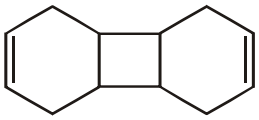
Among these cycloalkenes, which of the following orders of stability is correct?

(A) I > II > III (B) III > II > I (C) II > I > III (D) II > III > I

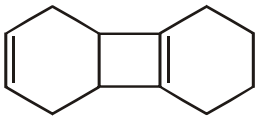
Q.14



I



II

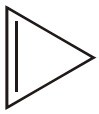


III

Among these dienes, which of the following orders of stability is correct?

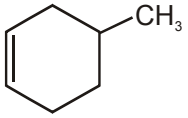
(A) I > II > III (B) III > II > I (C) II > III > I (D) II > I > III

Q.15

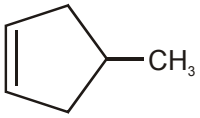


I

II



III



IV

Which of the following statements is correct, about these cycloalkenes?

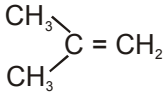
(A) Stability difference between I and II is more than that between III and IV

(B) Stability difference between I and II is less than that between III and IV

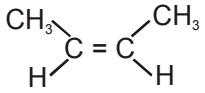
(C) Overall, stability order is I > II > III > IV

(D) None of these

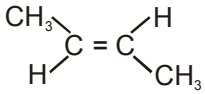
Q.16 I



II



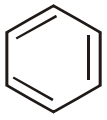
III



Which of the following orders is correct for heat of combustion of these isomeric alkenes?

(A) I > II > III (B) III > II > I (C) III > I > II (D) II > III > I

Q.17



I

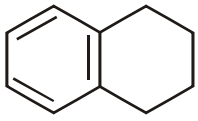
$CH_2 = CH - C \equiv C - CH = CH_2$

II

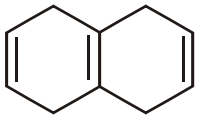
Which of the following orders is correct for heat of combustion of these isomers?

(A) I > II (B) II > I (C) I = II (D) Not predictable

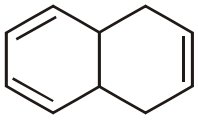
Q.18



I



II

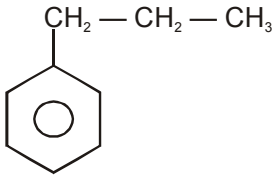


III

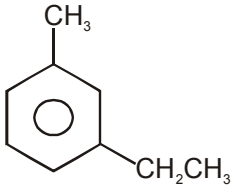
Which of the following order is correct for heat of combustion of these isomers?

(A) I > II > III (B) III > II > I (C) II > III > I (D) I > III > II

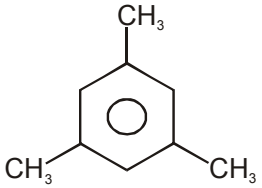
Q.19



I



II

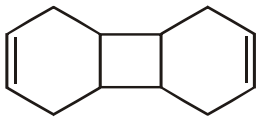


III

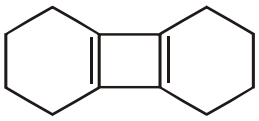
Which of the following orders is correct for heat of hydrogenation of these compounds?

(A) I > II > III (B) III > II > I (C) II > I > III (D) I > III > II

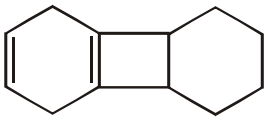
Q.20



I



II

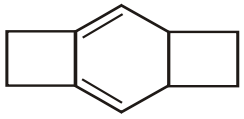


III

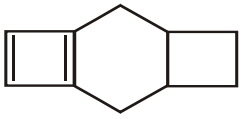
Which of the following orders is correct for heat of hydrogenation of these compounds?

(A) I > II > III (B) III > II > I (C) III > I > II (D) II > III > I

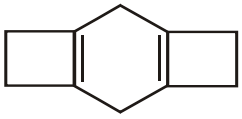
Q.21



I



II

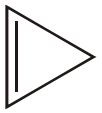


III

Which of the following orders is correct for heat of hydrogenation of these compounds?

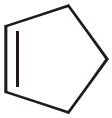
(A) I > II > III (B) III > II > I (C) II > I > III (D) I > III > II

Q.22



I

II

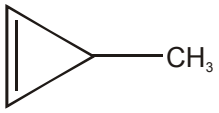


III

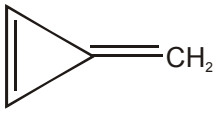
Which of the following orders is correct for heat of hydrogenation of these compounds?

(A) I > II > III (B) III > II > I (C) II > I > III (D) III > I > II

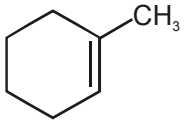
Q.23



I



II

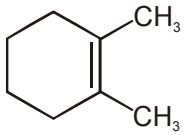


III

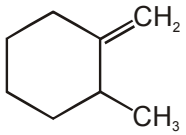
Which of the following orders is correct for heat of hydrogenation of these compounds?

(A) I > II > III (B) III > II > I (C) III > I > II (D) II > I > III

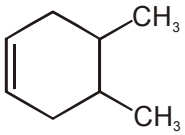
Q.24



I



II

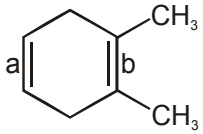


III

Which of the following order is correct for heat of hydrogenation of these compounds?

(A) I > II > III (B) III > II > I (C) II > III > I (D) III > I > II

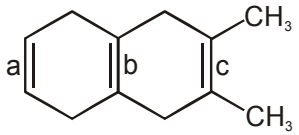
Q.25



a and b are the length of these two C = C bonds. Now, which of the following orders is correct?

(A) a = b (B) a < b (C) b > a (D) Not predictable

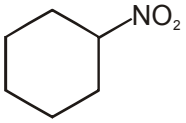
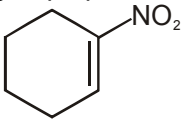
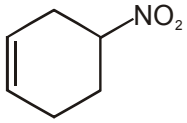
Q.26



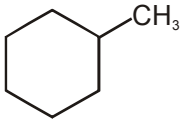
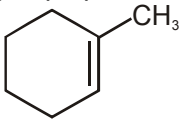
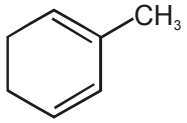
a, b and c are the length of these C = C bonds. Now, which of the following orders is correct?

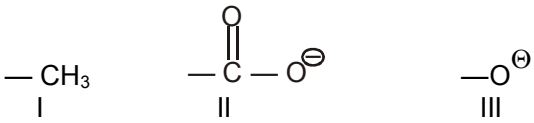
(A) a = b = c (B) a > b > c (C) c > b > a (D) b > c > a

Q.27 Inductive effect of – NO_2 group operates in

(A)  (B)  (C)  (D) all of these

Q.28 Inductive effect of – CH_3 group operates in

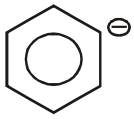
(A)  (B)  (C)  (D) both (B) and (C)

Q.29 

I II III

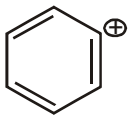
Which of these groups has + I effect?

(A) I (B) II (C) III (D) all of these

Q.30 

Hybridization of the negatively charged C-atom of this anion is

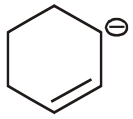
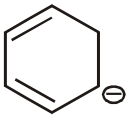
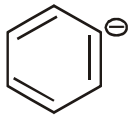
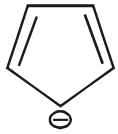
(A) sp^3 (B) sp^2 (C) sp (D) unhybridized

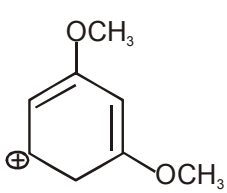
Q.1 

Empty orbital of this carbocation is

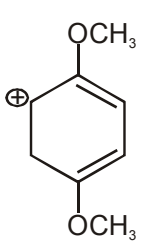
(A) 2p (B) sp^3 (C) sp^2 (D) sp

Q.2 Negative charge of which the following carbanions is not resonance – stabilized?

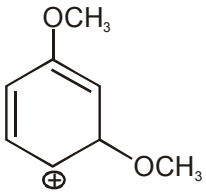
(A)  (B)  (C)  (D) 

Q.3 

I



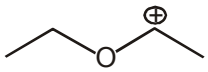
II

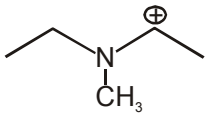


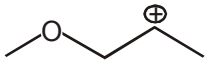
III

Which of the following orders is correct for the stability of these carbocations?

(A) I > II > III (B) III > II > I (C) I > III > II (D) II > III > I

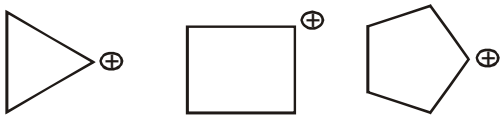
Q.4 I 

II 

II 

Which of the following orders is correct for the stability of these carbocations?

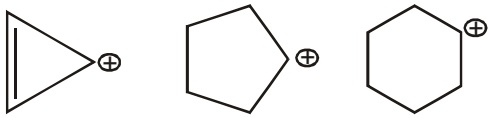
(A) I > II > III (B) III > II > I (C) II > I > III (D) II > III > I

Q.5 

I II III

Which of the following orders is correct for the stability of these carbocations?

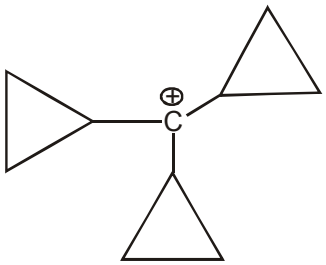
(A) I > II > III (B) III > II > I (C) II > I > III (D) II > III > I

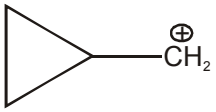
Q.6 

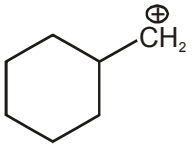
I II III

Which of the following orders is correct for the stability of these carbocations?

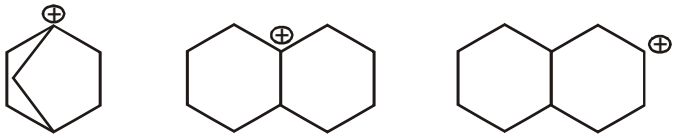
(A) I > II > III (B) III > II > I (C) I > III > II (D) II > I > III

Q.7 I 

II 

III 

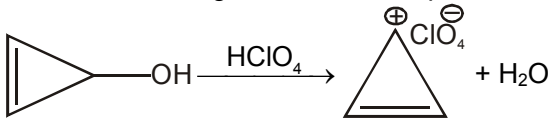
Which of the following orders is correct for the stability of these carbocations?
(A) I > II > III (B) III > II > I (C) II > I > III (D) III > I > II

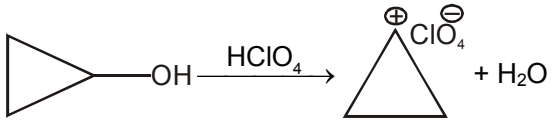
Q.8 

I II III

Which of the following orders is correct for the stability of these carbocations?
(A) I > II > III (B) III > II > I (C) II > I > III (D) II > III > I

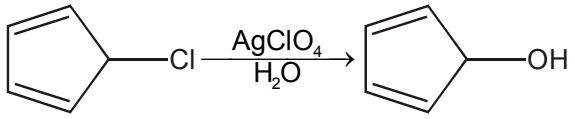
Q.9 Which of the following reactions is not possible?

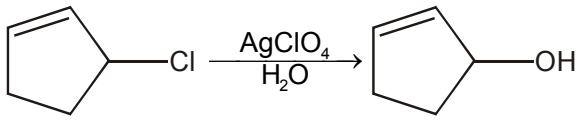
(A) 

(B) 

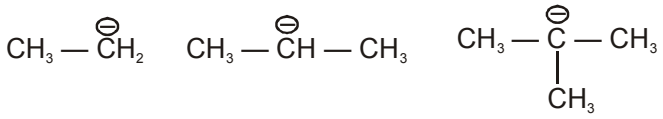
(C) both (A) and (B)
(D) none of these

Q.10 Which of the following reactions is not possible?

(A) 

(B) 

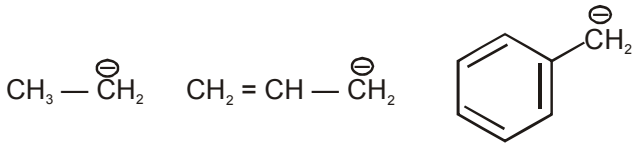
(C) both (A) and (B)
(D) none of these

Q.11 

I II III

Which of the following orders is correct for the stability of these carbanions?

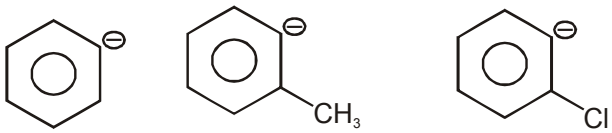
(A) I > II > III (B) III > II > I (C) II > I > III (D) I > II > III

Q.12 

I II III

Which of the following orders is correct for the stability of these carbanions?

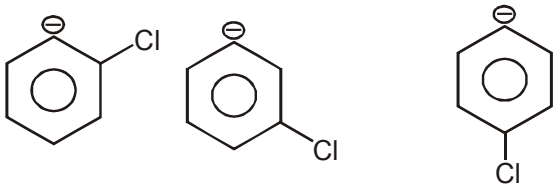
(A) I > II > III (B) III > II > I (C) II > III > I (D) II > I > III

Q.13 

I II III

Which of the following orders is correct for the stability of these carbanions?

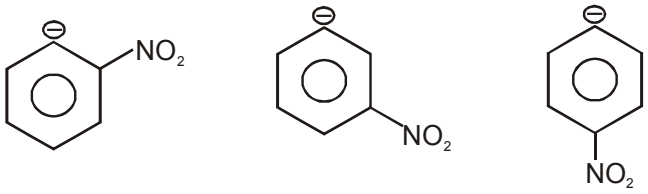
(A) I > II > III (B) III > II > I (C) III > I > II (D) II > III > II

Q.14 

I II III

Which of the following orders is correct for the stability of these carbanions?

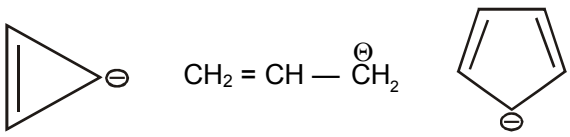
(A) I > II > III (B) III > II > I (C) II > I > III (D) II > I > III

Q.15 

I II III

Which of the following orders is correct for the stability of these carbanions?

(A) I > II > III (B) III > II > I (C) II > I > III (D) II > III > I

Q.16 

I II III

Which of the following orders is correct for the stability of these carbanions?

(A) I > II > III (B) III > II > I (C) I > III > II (D) II > III > I

Q.17 I $\overset{\ominus}{C}H_2 - CH = CH_2$

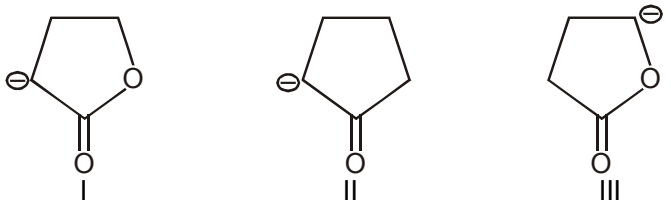
II $\overset{\ominus}{C}H_2 - CH = O$

III $\overset{\ominus}{C}H_2 - CH_2 - CH_3$

Which of the following orders is correct for the stability of these carbanions?

(A) I > II > III (B) III > II > I (C) II > I > III (D) II > III > I

Q.18

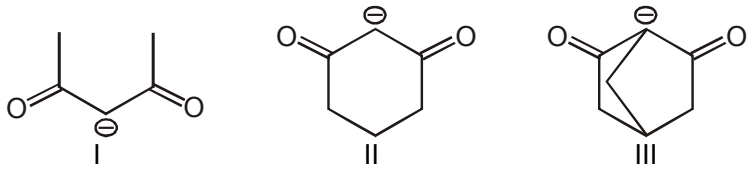


I II III

Which of the following orders is correct for the stability of these carbanions?

(A) I > II > III (B) III > II > I (C) II > III > I (D) II > I > III

Q.19



I II III

Which of these carbanions is sp^3 hybridized?

(A) I (B) II (C) III (D) nonw of these

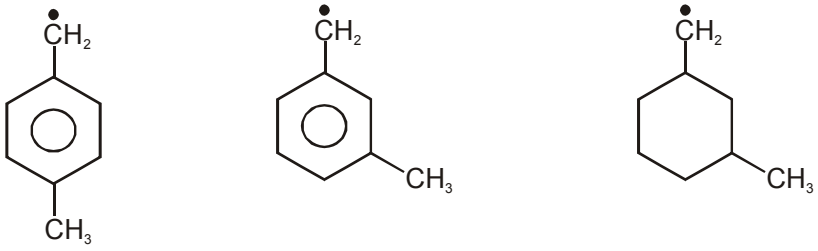
Q.20 $CH_2 = CH - \dot{C}H_2$ $CH_3 - \dot{C}H_2$ $CH_3 - \dot{C}(CH_3)_2$

I II III

Which of the following orders is correct for the stability of these radicals?

(A) I > II > III (B) III > II > I (C) I > III > II (D) III > I > II

Q.21

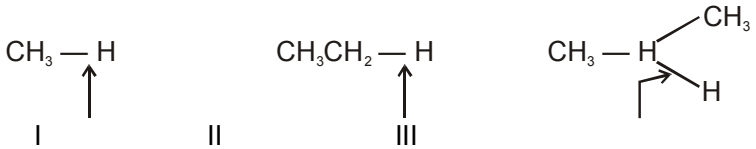


I II III

Which of the following orders is correct for the stability of these radicals?

(A) I > II > III (B) III > II > I (C) II > I > III (D) II > III > I

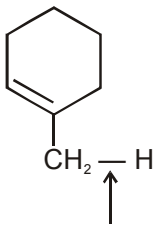
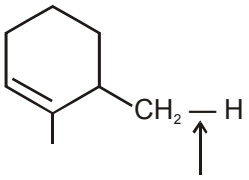
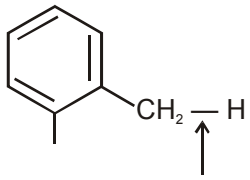
Q.22



I II III

Which of the following orders is correct for the energy required for homolytic cleavage of indicated C – H bonds?

(A) I > II > III (B) III > II > I (C) III > I > II (D) II > III > I

Q.23 I  II  III 

Which of the following orders is correct for energy required for homolytic cleavage of indicated C – H bonds?

(A) I > II > III (B) III > II > I (C) II > I > III (D) III > I > II

Q.24 I $Cl — CH_2 — COOH$

II $Br — CH_2 — COOH$

III $I — CH_2 — COOH$

Which of the following order is correct for the acidic strength of these carboxylic acids?

(A) I > II > III (B) III > II > I (C) II > I > III (D) II > III > I

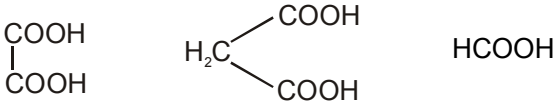
Q.25 I $Cl — CH_2 — COOH$

II $O_2N — CH_2 — COOH$

III $CH_3 — COOH$

Which of the following order is correct for the acidic strength of these carboxylic acids?

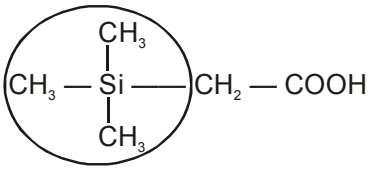
(A) I > II > III (B) III > II > I (C) II > I > III (D) II > III > I

Q.26 

I II III

Which of the following order is correct for the acidic strength of these carboxylic acids?

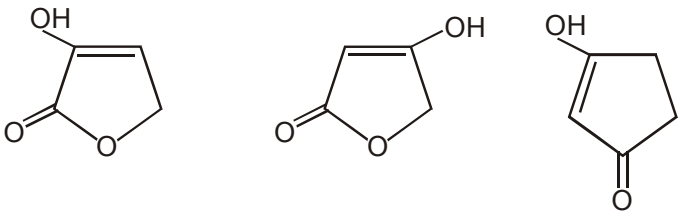
(A) I > II > III (B) III > II > I (C) II > I > III (D) II > III > I

Q.27 

In this molecule, the effect of trimethylsilyl group (encircled) on the acidity of – COOH group is of

(A) strong electron donating nature (B) strong electron withdrawing nature

(C) weak electron withdrawing nature (D) both (A) and (C)

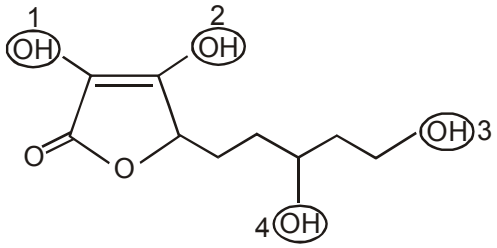
Q.28 

I II III

Which of the following order is correct for the acidic strength of these compounds?

(A) I > II > III (B) III > II > I (C) II > I > III (D) III > I > II

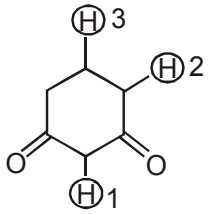
Q.29



Which of these – OH groups is most acidic?

(A) 1 (B) 2 (C) 3 (D) 4

Q.30

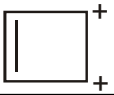
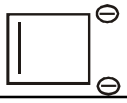
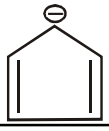
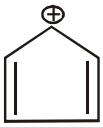
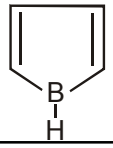
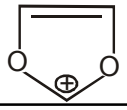
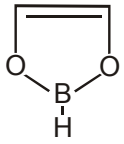


Which of the following orders is correct for the acidity of these indicated H-atoms?

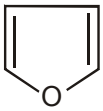
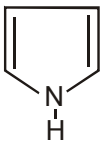
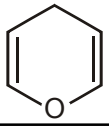
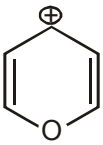
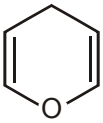
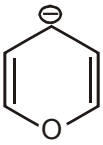
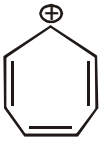
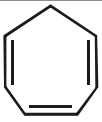
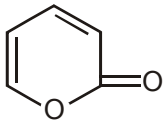
(A) 1 > 2 > 3 (B) 3 > 2 > 1 (C) 2 > 1 > 3 (D) 1 > 3 > 2

DPP NO- 13 Time: 15 minutes

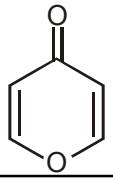
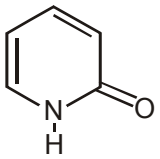
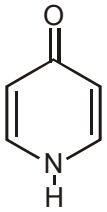
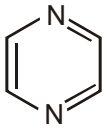
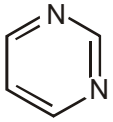
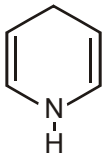
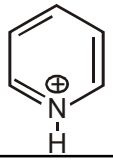
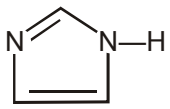
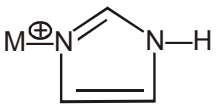
1. Identify the Nature of compound

S.No.	Compound	Aromatic	Anti-aromatic	Non-aromatic
(1)				
(2)				
(3)				
(4)				
(5)				
(6)				
(7)				
(8)				
(9)				
(10)				
(11)				
(12)				
(13)				

DPP NO- 14 Time: 15 minutes

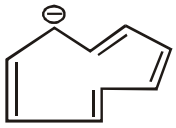
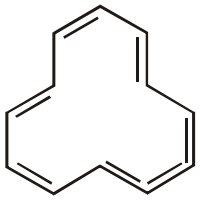
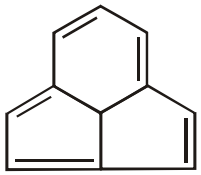
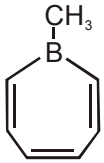
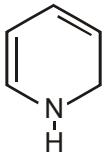
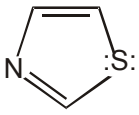
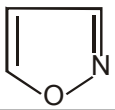
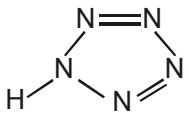
S.No.	Compound	Aromatic	Anti-aromatic	Non-aromatic
(1)				
(2)				
(3)				
(4)				
(5)				
(6)				
(7)				
(8)				
(9)				
(10)				
(11)				

DPP NO- 15 Time: 15 minutes

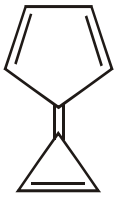
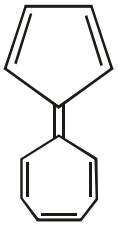
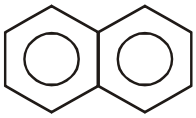
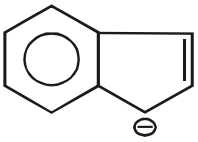
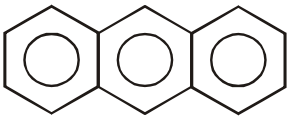
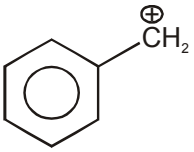
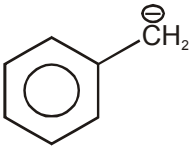
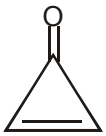
S.No.	Compound	Aromatic	Anti-aromatic	Non-aromatic
(1)				
(2)				
(3)				
(4)				
(5)				
(6)				
(7)				
(8)				
(9)				

DPP NO- 16 Time: 15 minutes

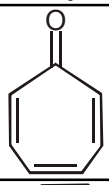
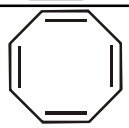
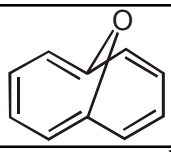
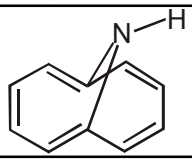
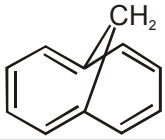
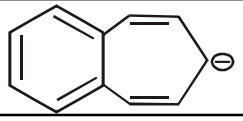
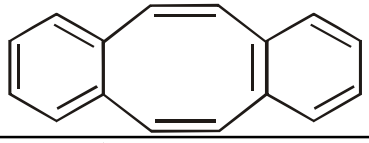
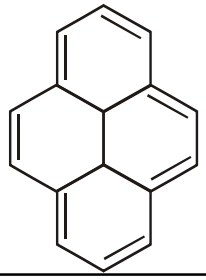
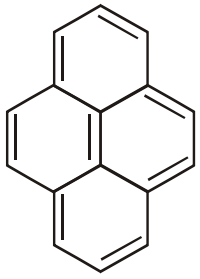
1. Identify the Nature of compound

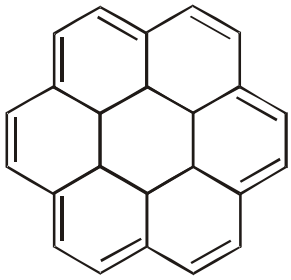
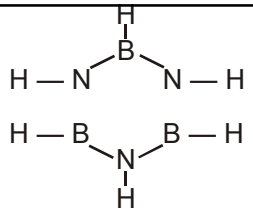
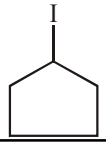
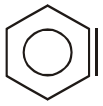
S.No.	Compound	Aromatic	Anti-aromatic	Non-aromatic
(1)				
(2)				
(3)				
(4)				
(5)				
(6)				
(7)				
(8)				
(9)				

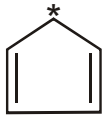
DPP NO- 17 Time: 15 minutes

S.No.	Compound	Aromatic	Anti-aromatic	Non-aromatic
(1)				
(2)				
(3)				
(4)				
(5)				
(6)				
(7)				
(8)				
(9)				

DPP NO- 18 Time: 15 minutes

S.No.	Compound	Aromatic	Anti-aromatic	Non-aromatic
(1)				
(2)				
(3)				
(4)				
(5)				
(6)				
(7)				
(8)				
(9)				

S.No.	Compound	Aromatic	Anti-aromatic	Non-aromatic
(1)				
(2)	 Borazole			
(3)				
(4)				

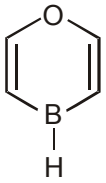
(2)  ($C^* = C^{14}$) $\xrightarrow{KH}$ (A) + gas (Identify A, B, C, D)

$\downarrow H^+$

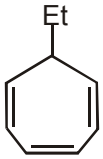
B + C + D

(3) Determine the number of π electrons for each compound below, then indicate whether they are aromatic, antiaromatic, or neither. Assume the molecules are neutral and planar unless otherwise indicated.

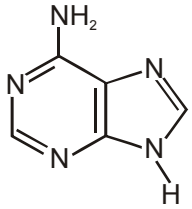
Number of π electrons:_____
Aromatic,
Antiaromatic,
or
Neither ?



Number of π electrons:_____
Aromatic,
Antiaromatic,
or
Neither ?



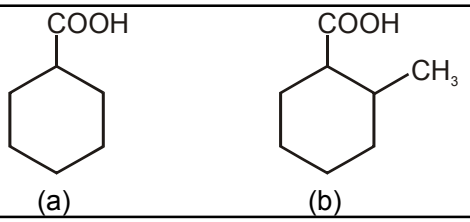
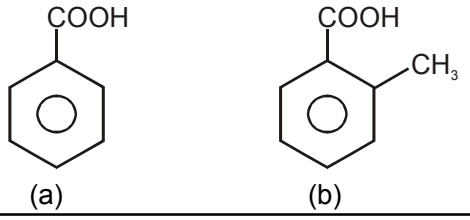
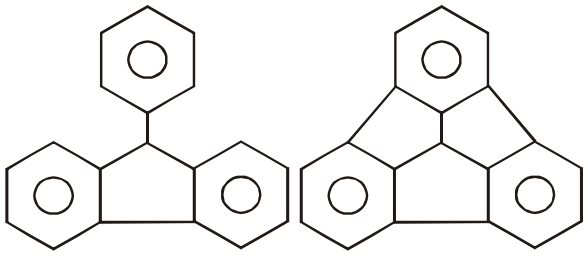
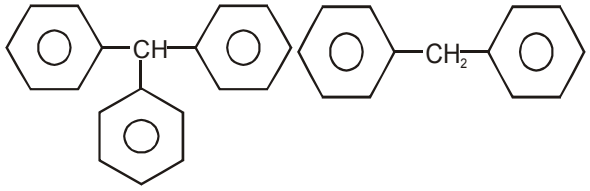
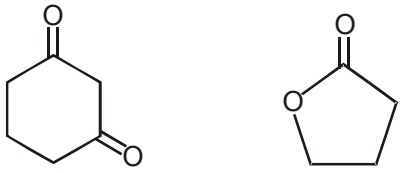
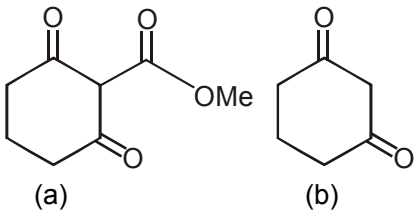
Number of π electrons:_____
Aromatic,
Antiaromatic,
or
Neither ?

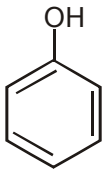
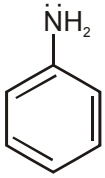
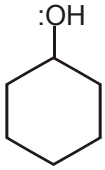
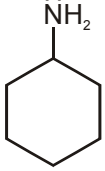
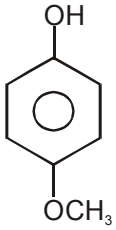
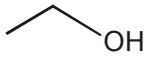
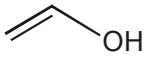
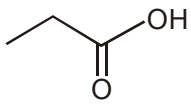
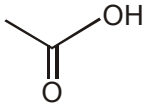


Number of π electrons:_____
Aromatic,
Antiaromatic,
or
Neither ?

DPP NO- 20 Time: 15 minutes

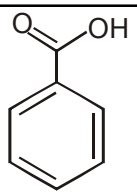
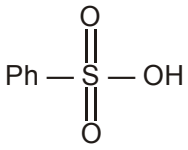
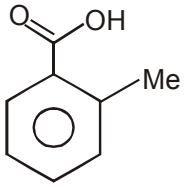
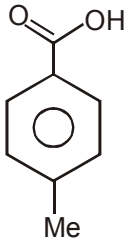
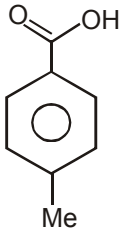
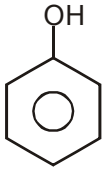
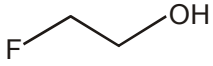
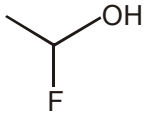
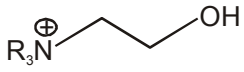
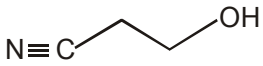
1. Compare Acidic Strength

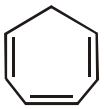
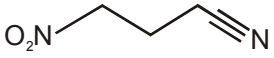
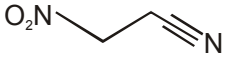
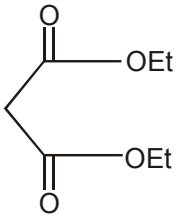
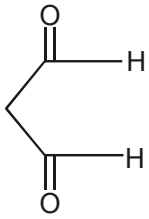
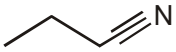
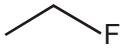
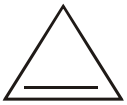
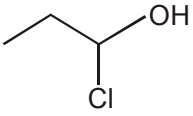
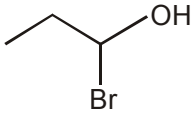
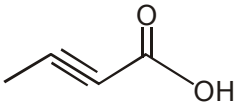
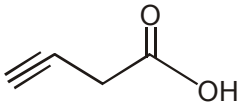
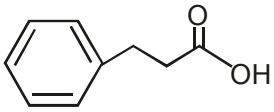
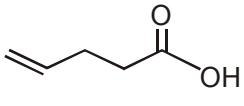
S.No.	Compound	Compare Ka value		Compare pKa value	
		a	**b**	**a**	**b**
(1)	 (a) (b)				
(2)	 (a) (b)				
(3)	 (a) (b)				
(4)	 (a) (b)				
(5)	 (a) (b)				
(6)	 (a) (b)				

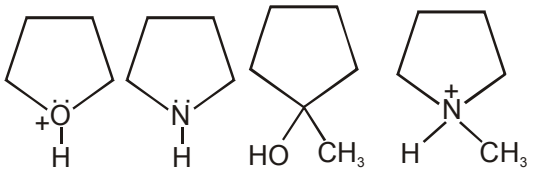
S.No.	Compound	Compare Ka value		Compare pKa value	
		a	b	a	b
(7)	 (a)  (b)				
(8)	 (a)  (b)				
(9)	 (a)  (b)				
(10)	$Cl—CH_2—CH_2—COOH$ (a) $CH_3—\underset{\displaystyle Cl}{\underset{\vert}{CH}}—COOH$ (b)				
(11)	 (a)  (b)				
(12)	HF (a) NH_3 (b)				
(13)	$HC \equiv CH$ (a) $\ddot{N}H_3$ (b)				
(14)	CH_4 (a) NH_3 (b)				
(15)	$HC \equiv N$ (a) $\ddot{N}H_3$ (b)				
(16)	 (a)  (b)				

DPP NO-21 Time: 15 minutes

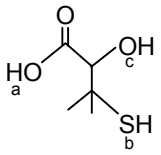
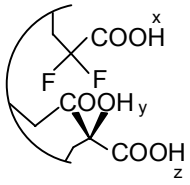
1. Compare Acidic Strength

S.No.	Compound		Compare Ka value		Compare pKa value	
			a	**b**	**a**	**b**
(1)	 (a)	 (b)				
(2)	R — OH (a)	R — C(=O) — OH (b)				
(3)	 (a)	 (b)				
(4)	 (a)	 (b)				
(5)	 (a)	 (b)				
(6)	 (a)	 (b)				
(7)	CH_4 (a)	HF (b)				
(8)	HF (a)	HI (b)				
(9)	H_2S (a)	H_2O (b)				

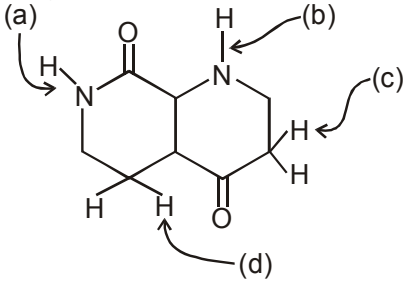
S.No.	Compound	Compare Ka value		Compare pKa value	
		a	b	a	b
(10)	 (a)  (b)				
(11)	 (a)  (b)				
(12)	 (a)  (b)				
(13)	 (a)  (b)				
(14)	 (a)  (b)				
(15)	CCl_3OH (a) CF_3OH (b)				
(16)	 (a)  (b)				
(17)	 (a)  (b)				
(18)	 (a)  (b)				
(19)	 (a)  (b)				
(20)	$CHCl_3$ (a) HCF_3 (b)				

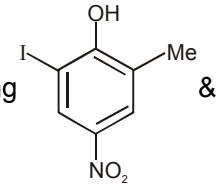
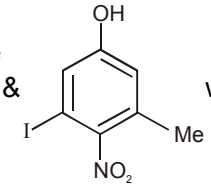
Q.1 Rank the following in order of decreasing acidity. 

Q.2 Consider the following compound. Rank the labeled proton in increasing order of acidity

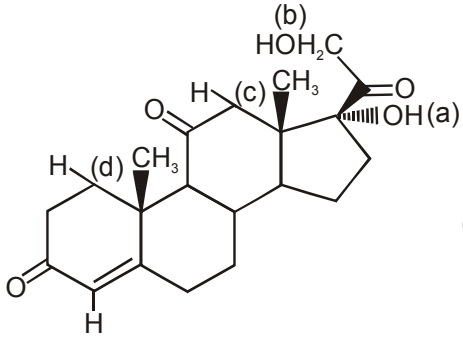
(a)  (b)  Write the stepwise ionization of acid

Q.3 Write correct order of acidic strength as a to d.



Q.4 Among  &  which is more acidic & why? Explain through canonical forms.

Questions No. 5 to 7 (3 questions)



Cortisone

Q.5 Cortisone contains which functional groups?

(A) Ether, alkene, alcohol (B) Alcohol, ketone, amine
(C) Alcohol, ketone, alkene (D) Ether, amine, ketone

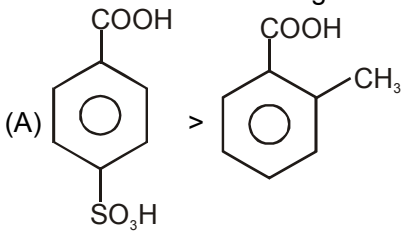
Q.6 Total stereoisomer of the compound Cortisone is

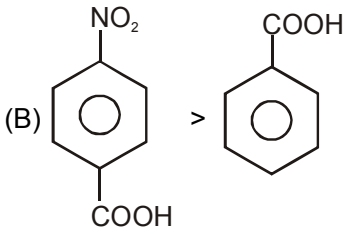
(A) 32 (B) 64 (C) 66 (D) 128

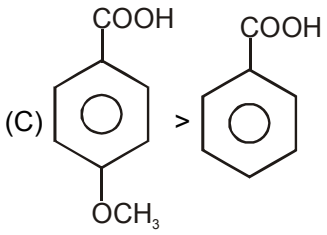
Q.7 Total number of chiral center in Cortisone:

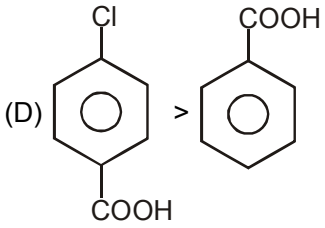
(A) 4 (B) 5 (C) 6 (D) 7

Q.8 Which order of acid strength is wrong

(A) 

(B) 

(C) 

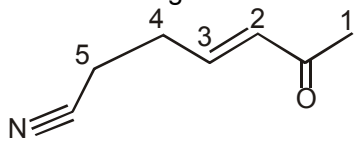
(D) 

Q.9 Which is the order of acidity of the following compounds?

$EtCO_2H$	CH_3CO_2H	CH_3SO_3H	CF_3SO_3H
a	b	c	d

(A) b > a > d > c (B) d > c > a > b (C) d > c > b > a (D) d > a > b > c

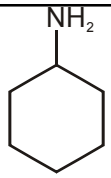
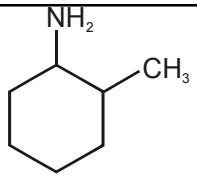
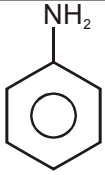
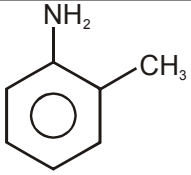
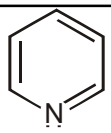
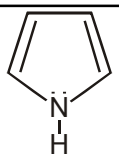
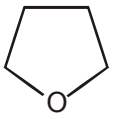
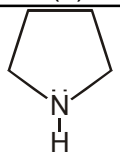
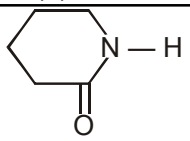
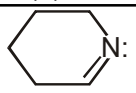
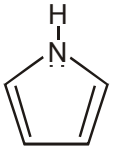
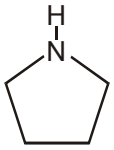
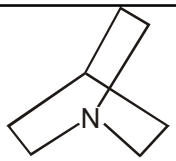
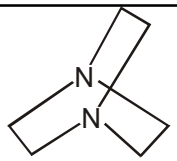
Q.10 Which of the following carbon will be deprotonatated first on treatment with base.



(A) 4 (B) 5 (C) 2 (D) 3

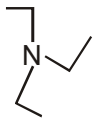
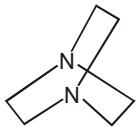
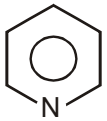
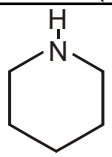
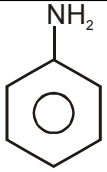
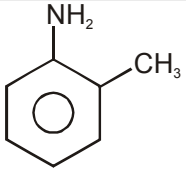
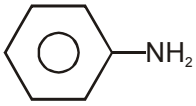
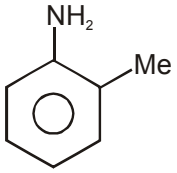
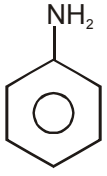
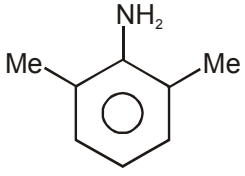
DPP NO-23 Time: 15 minutes

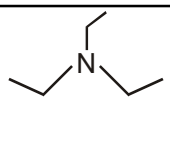
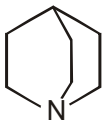
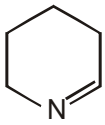
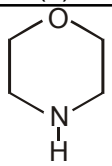
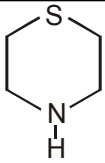
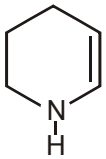
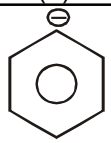
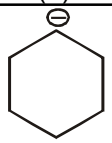
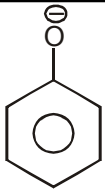
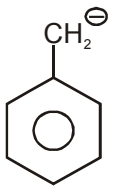
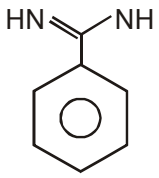
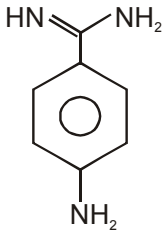
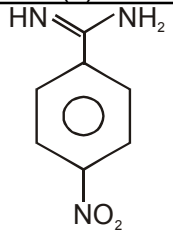
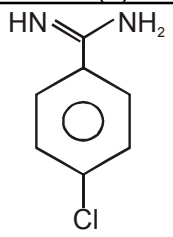
1. Compare which is more basic in nature

S.No.	Compounds	Compare Kb value		Compare pKb value	
		a	**b**	**a**	**b**
(1)	 (a)  (b)				
(2)	 (a)  (b)				
(3)	 (a)  (b)				
(4)	 (a)  (b)				
(5)	 (a)  (b)				
(6)	 (a)  (b)				
(7)	 (a)  (b)				

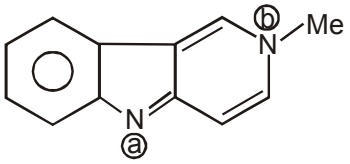
DPP NO- 24 Time: 15 minutes

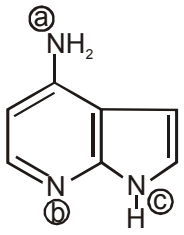
1. Compare which is more basic in nature

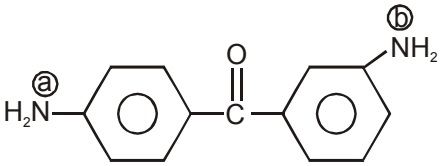
S.No.	Compounds	Compare Kb value		Compare pKb value	
		a	**b**	**a**	**b**
(1)	 (a)  (b)				
(2)	 (a)  (b)				
(3)	 (a)  (b)				
(4)	Ph — NH — Me (a)  (b)				
(5)	Ph — NH — Me (a) Ph — N(Me) — Me (b)				
(6)	 (a)  (b)				
(7)	$H_2N-C(NH_2)=NH$ (a) $H_2N-C(CH_3)=NH$ (b)				
(8)	 (a)  (b)				

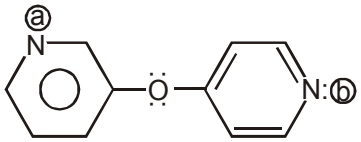
S.No.	Compounds	Compare Kb value		Compare pKb value	
		a	b	a	b
(9)	 (a)  (b)				
(10)	 (a)  (b)				
(11)	 (a)  (b)				
(12)	 (a)  (b)				
(13)	 (a)  (b)				
(14)	 (a)  (b)				
(15)	 (a)  (b)				

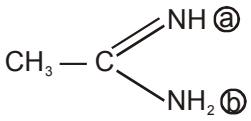
Q.1 Which Nitrogen is most basic

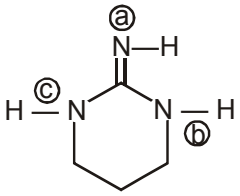
(i) 

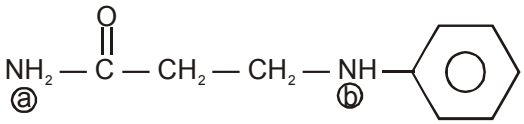
(ii) 

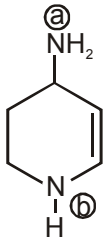
(iii) 

(iv) 

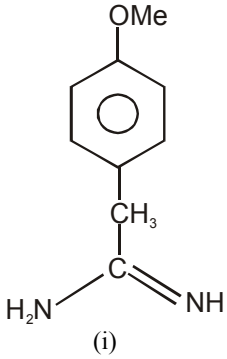
(v) 

(vi) 

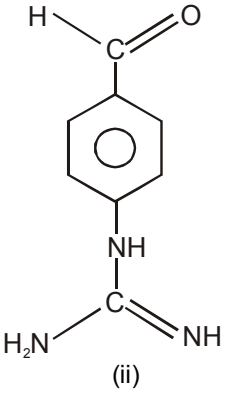
(vii) 

(viii) 

2. Which is more basic & why?



(i)



(ii)