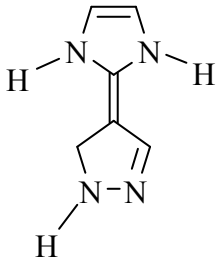
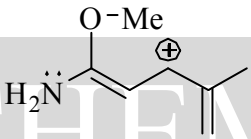
GOC (2)

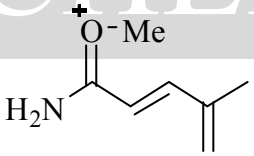
1. Number of atoms having sp^2 hybridisation in the given compounds

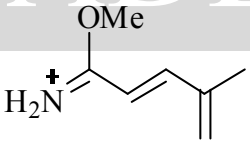


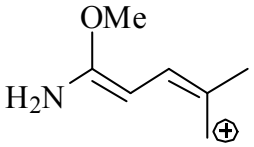
(a) 7 (b) 8 (c) 9 (d) 4

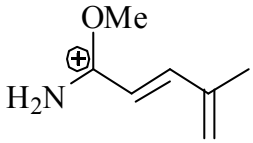
2. The most stable resonating structure for the given molecule



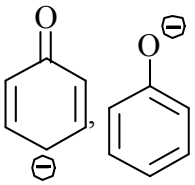
(a) 

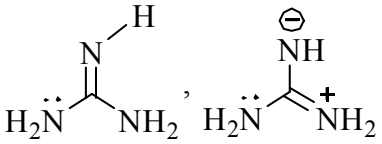
(b) 

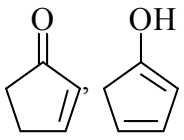
(c) 

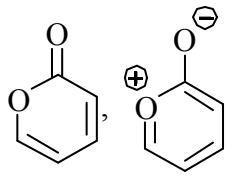
(d) 

3. Among the following which is not represent pair of resonating structure

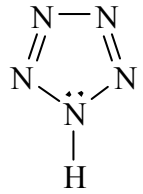
(a) 

(b) 

(c) 

(d) 

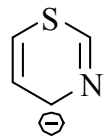
4. In correct statement about the following molecule.



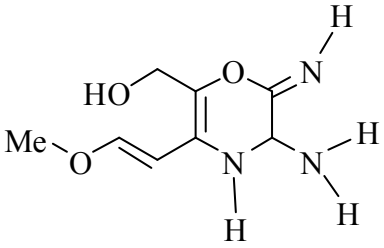
(a) It contain 4 sp^2 atoms (b) It contains 6π electrons

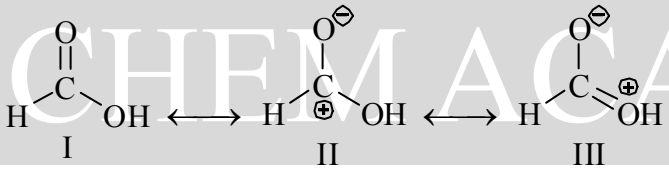
(c) 4 nitrogen contain localised lone pairs (d) 2 nitrogen contain delocalised lone pairs.

5. How many π electrons present in the given molecule.



6. How many atoms are sp^2 hybridised

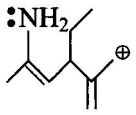
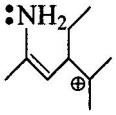
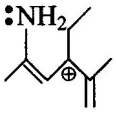
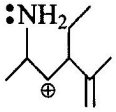


7. 

Among these canonical structures, the correct order of stability is

(a) I > II > III (b) III > II > I (c) I > III > II (d) II > I > III

8. Arrange the following which is most stabilised cation?

(a)  (b)  (c)  (d) 

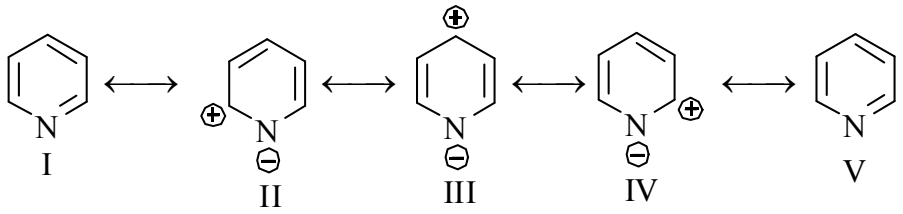
9. (I) $CH_3 - O - CH = CH - CH = CH_2$

(II) $CH_3 - O - \overset{\oplus}{C}H - CH = CH - \overset{\ominus}{C}H_2$

(III) $CH_3 - \overset{\oplus}{O} = CH - CH = CH - \overset{\ominus}{C}H_2$

Among these three canonical structures (through more are possible) what would be their relative contribution in the hybrid

(a) I > II > III (b) III > II > I (c) I > III > II (d) III > I > II

10. 

Among these canonical structures of pyridinie, the correct order of stability is

(a) (I = V) > (II = IV) > III (b) (II = IV) > (I = V) > III

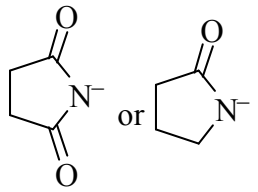
(c) (I = V) > III > (II = IV) (d) III > (II = IV) > (I = V)

11. In which of the following pairs, first species is more stable than second?

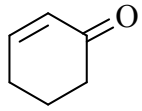
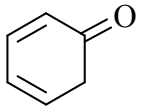
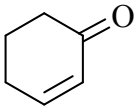
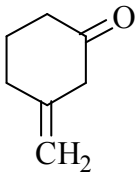
(a) $CH_3 - CH_2O^-$ or $CH_3\overset{\overset{O}{\|}}{C}O^-$

(b) $CH_3\overset{\overset{O}{\|}}{C}\overset{-}{C}HCH_2\overset{\overset{O}{\|}}{C}H$ or $CH_3\overset{\overset{O}{\|}}{C}\overset{-}{C}H\overset{\overset{O}{\|}}{C}H_3$

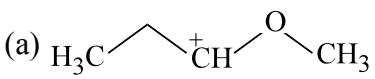
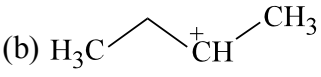
(c) $CH_3\overset{-}{C}HCH_2\overset{\overset{O}{\|}}{C}CH_3$ or $CH_3CH_2\overset{-}{C}H\overset{\overset{O}{\|}}{C}CH_3$

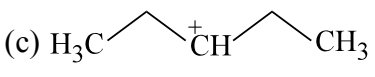
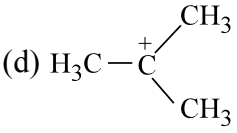
(d)  or

12. Which of the following has longest C – O bond:

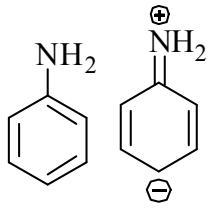
(a)  (b)  (c)  (d) 

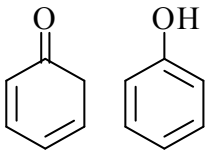
13. Which of the following carbocation will be more stable?

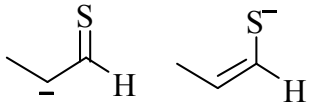
(a)  (b) 

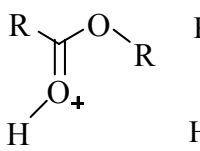
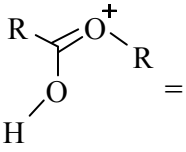
(c)  (d) 

14. Which of the following is incorrect relation between given pairs?

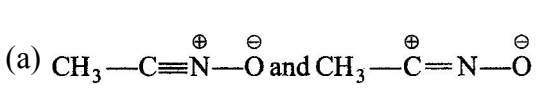
(a)  = Resonance

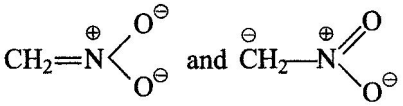
(b)  = Tautomers

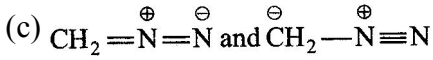
(c)  = Resonance

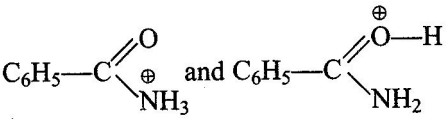
(d)   = Tautomers

15. Which of the following pair represents non identical pair?

(a) 

(b) 

(c) 

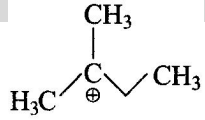
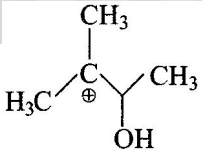
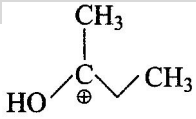
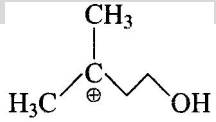
(d) 

16. The correct stability order of the following resonance structures is:

(I) (II) (III) (IV)

(a) I > II > IV > III (b) I > III > II > IV (c) II > I > III > IV (d) III . I > IV > II

17. Which of the following cations is most stable

(a)  (b)  (c)  (d) 

ANSWER KEY

1. c	2. b	3. c	4. a,d	5. 8	6. 9	7. c
8. c	9. c	10. a	11. d	12. b	13. a	14. d
15. d	16. b	17. c				