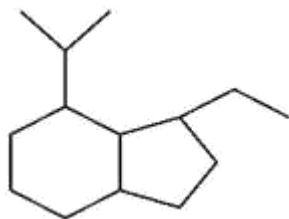
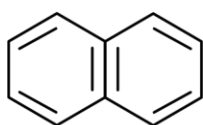


1. The number of  $3^\circ$  and  $2^\circ$  carbon atoms in the following compound is:

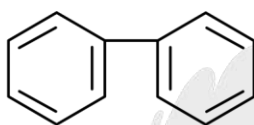


- (A) 5,6                      (B) 5,7                      (C) 4,6                      (D) 6,6

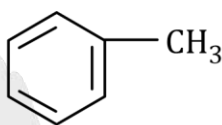
2. Which of the following have only  $2^\circ$  H atom:



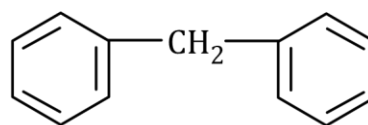
(a)



(b)



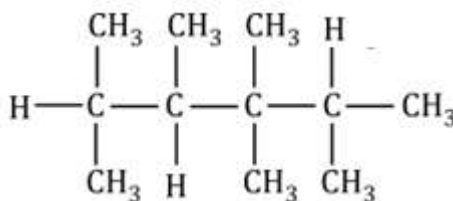
(c)



(d)

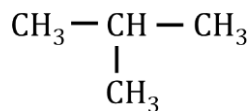
- (A) a and b                      (B) a, b and d  
(C) a, c and d                      (D) a, b, c and d

3. Number of  $3^\circ$  carbon and  $1^\circ$  hydrogen, respectively, in the following structure are



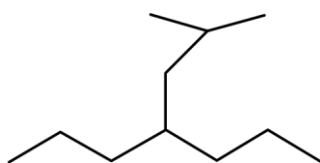
- (A) 3 and 21                      (B) 3 and 24  
(C) 2 and 18                      (D) 3 and 18

4. Find the number of  $1^\circ$ ,  $2^\circ$  &  $3^\circ$  hydrogen atoms in the following compounds:



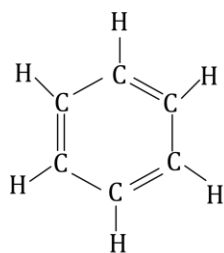
- (A)  $1^\circ\text{H} \rightarrow 9, 3^\circ\text{H} \rightarrow 1$                       (B)  $1^\circ\text{H} \rightarrow 6, 2^\circ\text{H} \rightarrow 2, 3^\circ\text{H} \rightarrow 2$   
(C)  $1^\circ\text{H} \rightarrow 6, 2^\circ\text{H} \rightarrow 4$                       (D)  $1^\circ\text{H} \rightarrow 9, 2^\circ\text{H} \rightarrow 1$

- 5.

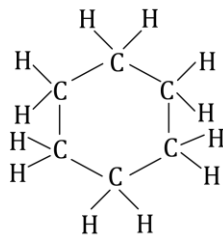


How many  $2^\circ$  Carbon(s) are present in above compound?

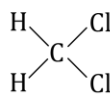
6. Indicate the  $\sigma$  and  $\pi$  bonds in the following molecules.



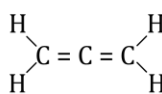
Benzene



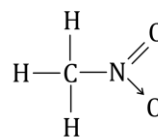
Cyclohexane



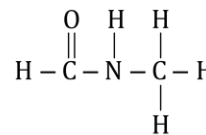
Dichloromethane



Allene



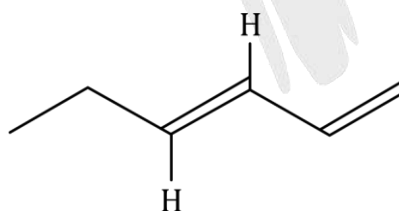
Nitromethane

N-methyl  
formamide

7. Find the degree of carbon and hydrogen of following compound

Compounds	1° C	2° C	3° C	4° C	1° H	2° H	3° H
(1)							
(2)							
(3)							
(4)							

8. The number of hydrogen atoms present in the following compound are:



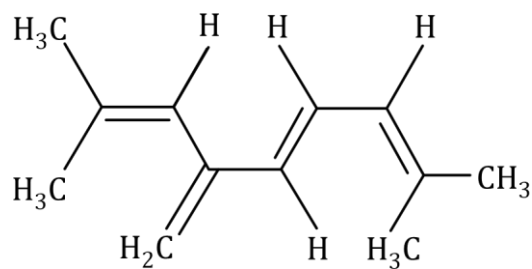
(A) 13

(B) 10

(C) 14

(D) 2

9. The total number of  $\pi$  electrons in the given structure are :



(A) 12

(B) 16

(C) 4

(D) 8



## ANSWER KEY

1. (A) 2. (B) 3. (B) 4. (A) 5. (5) 8. (B) 9. (D)

A