

نموذج الإجابة:

ملاحظة هامة: تصحيح الإمتحان سيكون بناء علي الإجابة المكتوبة في الجدول أسفل (حرف الإجابة الصحيحة) ولن ينظر الى بقية الأوراق والتي تعتبر مسودة .

الإجابة	رقم السؤال	الإجابة	رقم السؤال
A	16	B	1
B	17	A	2
D	18	D	3
C	19	C	4
D	20	B	5
C	21	D	6
C	22	C	7
D	23	A	8
B	24	B	9
A	25	D	10
D	26	A	11
A	27	C	12
B	28	B	13
A	29	A	14
C	30	D	15

Choose The Correct Answer For Each of The Following Questions

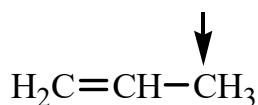
1. Which of the following molecules has an ionic bond?

- A) Cl_2 B) KCl C) C_2H_6 D) H_2O

2. The number of structural isomers for the molecular formula C_4H_{10} is

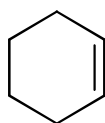
- A) 2 B) 1 C) 4 D) 3

3. The type of hybridization of the selected carbon is



- A) sp^2 B) sp C) sp^3d D) sp^3

4. How many σ and π bonds are in the following structure?



- A) 13 sigma and 2 pi bond B) 16 sigma and 2 pi bond
C) 16 sigma and 1 pi bond D) 15 sigma and 1 pi bond

5. Which of the following molecules has the smallest dipole moment?

- A) CHCl_3 B) CCl_4 C) H_2O D) NH_3

6. Which of the following substituents have (-I) effect?

- A) $-\text{OH}$ B) $-\text{NH}_2$ C) $-\text{CH}_3$ D) $-\text{CN}$

7. The product of the following reaction is

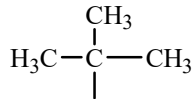


- A) Octane B) 1-Bromopentane
C) Pentane D) 1-Bromopropane

8. The carbon bearing a positive charge is called

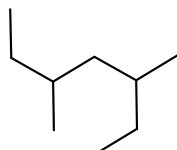
- A) carbocation B) free radical C) carbanion D) anion

9. The name of the following group is



- A) *sec*-butyl B) *t*-butyl C) isobutyl D) butyl

10. What is the IUPAC name of the following compound?



- A) 2-Ethyl-4-methylhexane B) 3,5-Dimethylnonane
C) 5-Ethyl-3-methylhexane D) 3,5-Dimethylheptane

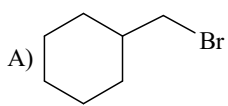
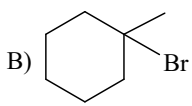
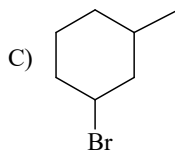
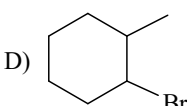
11. The compound with the highest boiling point is

- A) $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_3$ B) $\text{H}_3\text{CH}_2\text{C}-\overset{\text{CH}_3}{\underset{|}{\text{CH}}}-\text{CH}_3$ C) $\text{H}_3\text{C}-\overset{\text{CH}_3}{\underset{|}{\text{CH}}}-\text{CH}_3$ D) $\text{H}_3\text{C}-\overset{\text{CH}_3}{\underset{\text{CH}_3}{\text{C}}}-\text{CH}_3$

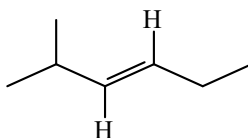
12. At room temperature, alkanes from C_1 to C_4 are

- A) semisolids) B) solids C) gases D) liquids

13. The major product of the following reaction  is

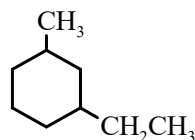
- A)  B)  C)  D) 

14. The IUPAC name of the following structure is



- A) *trans*-2-Methyl-3-hexene. B) *trans*-5-Methyl-3-hexene
C) *cis*-2-Methyl-3-hexene. D) *cis*-5-Methyl-3-hexene.

15. The IUPAC name for the following formula is



- A) 3-Ethyl-1-methylcyclohexane B) 1-Ethyl-5-methylcyclohexane
C) 1-Ethyl-3-methylhexane D) 1-Ethyl-3-methylcyclohexane

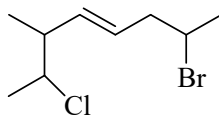
16. Which of the following compounds shows geometrical isomerism?

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

17. Hydrogenation of cyclopropane gives

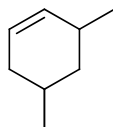


18. The Correct name of the following compound is



- A) 2-bromo-7-chloro-6-methyl-4-octene
B) 6-bromo-3-Chloro-2-ethyl-4-heptene.
C) 2-bromo-5-Chloro-2-ethyl-4-octene.
D) 7-bromo-2-chloro-3-methyl-4-octene.

19. What is the correct IUPAC name of the given structure?

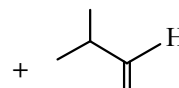
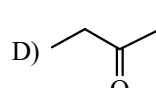
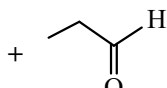
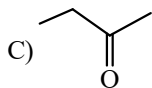
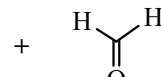
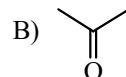
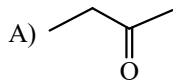
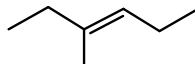


- A) 1, 5-Dimethylcyclohexene B) 4, 6-Dimethylcyclohexene
C) 3, 5-Dimethylcyclohexene D) 3, 5-Dimethylcyclohexane

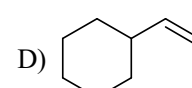
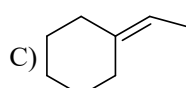
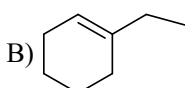
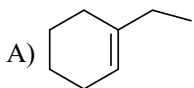
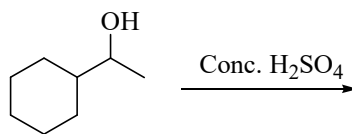
20. The structure of 5-chloro-2-ethyl-3,4-dimethyl-1-hexene is



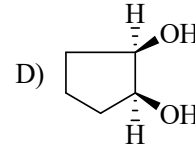
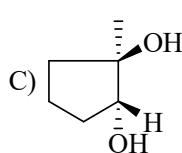
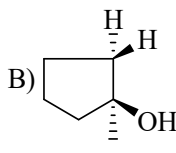
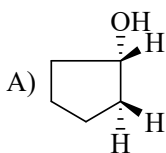
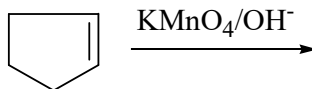
21. Ozonolysis of the following compound gives



22. The major product for the following reaction is



23. The product of the following reaction is



24. Reaction of alkynes with HBr is an example of

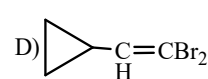
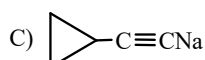
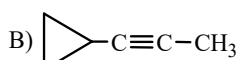
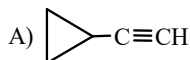
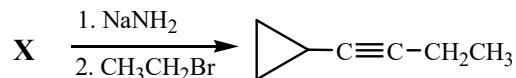
A) Free radical addition reaction

B) Electrophilic addition reaction

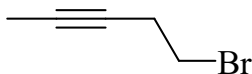
C) Nucleophilic substitution reaction

D) Electrophilic substitution reaction

25. The unknown compound **X** is



26. The correct IUPAC name of the given compound is



- A) 1-Bromo-3-pentyne
C) 1-Bromo-4-pentyne

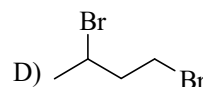
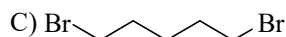
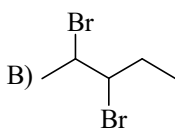
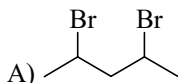
- B) 5-Bromo-3-pentyne
D) 5-Bromo-2-pentyne

27. The addition of 2 mol HBr to 1-Butyne gives

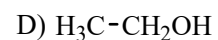
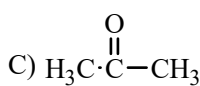
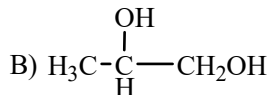
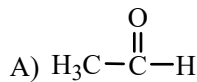
- A) 2,2-Dibromobutane
C) 1,3-Dibromobutane

- B) 1,1-Dibromobutane
D) 2,3-Dibromobutane

28. Which of the following dibromides would yield 2-butyne upon dehydrohalogenation?



29. The addition of water to acetylene in the presence of $\text{H}_2\text{SO}_4/\text{HgSO}_4$ gives



30. Which of the following compounds is more acidic?

