جامعة الملك سعود - كلية العلوم – قسم الكيمياء
الفصل الصيفي 1438 هـ (2017 م)
الاختبار الفصلى الأول في مقرر 145 كيم (29-10-1438 هـ)
الزمن: 90 دقيقة
أسم الطالبه: رقم الطالبه:
أستاذ المقرر أ. د. /

نموذج الأجابة:

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

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

Choose The Correct Answer For Each of The Following Questions

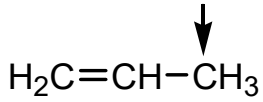
1. Which of the following molecules has an ionic bond?

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

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

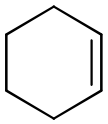
A) 1 B) 2 C) 3 D) 4

3. The type of hybridization of the selected carbon is …….



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

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



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

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

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

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

A) $-CH_3$ B) -OH C) -CN D) $–NH_2$

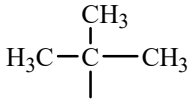
7. The product of the following reaction is …….

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

8. The carbon bearing a positive charge is called …….

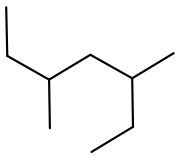
A) Free radical B) carbanion C) carbocation D) anion

9. The name of the following group is …….



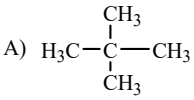
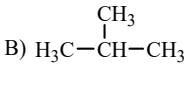
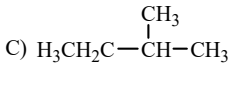
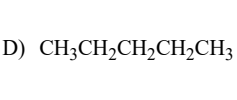
A) butyl B) *sec*-butyl C) isobutyl D) *t*-butyl

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



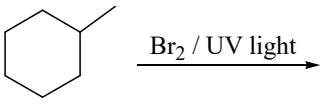
A) 3,5-Dimethylheptane
B) 3,5-Dimethylnonane
C) 2-Ethyl-4-methylhexane
D) 5-Ethyl-3-methylhexane

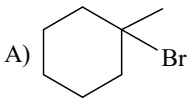
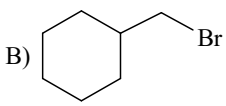
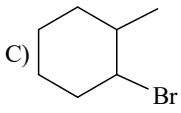
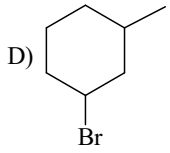
11. The compound with the highest boiling point is …….

A) 
B) 
C) 
D) 

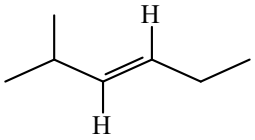
12. At room temperature, alkanes from C_1 to C_4 are …….

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

13. The major product of the following reaction  **is ……**

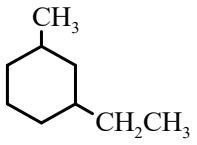
A) 
B) 
C) 
D) 

14. The IUPAC name of the following structure is …….



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

15. The IUPAC name for the following formula is …….

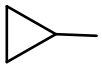
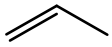
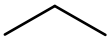


A) 1-Ethyl-3-methylcyclohexane
B) 1-Ethyl-5-methylcyclohexane
C) 3-Ethyl-1-methylcyclohexane
D) 1-Ethyl-3-methylhexane

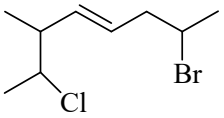
16. Which of the following compounds shows geometrical isomerism?

A) $H_2C{=}CH\text{-}CH_3$ B) $H_2C{=}C(CH_3)\text{-}CH_3$ C) $CH_3\text{-}CH{=}CH\text{-}CH_3$ D) $CH_3\text{-}C(CH_3){=}C(CH_3)\text{-}CH_3$

17. Hydrogenation of cyclopropane gives …….

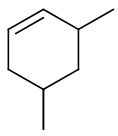
A)  B)  C)  D) 

18. The Correct name of the following compound is …….



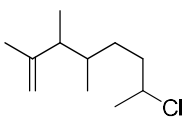
A) 7-bromo-2-chloro-3-methyl-4-octene.
B) 2-bromo-5-Chloro-2-ethyl-4-octene.
C) 2-bromo-7-chloro-6-methyl-4-octene
D) 6-bromo-3-Chloro-2-ethyl-4-heptene.

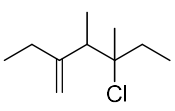
19. What is the correct IUPAC name of the given structure?

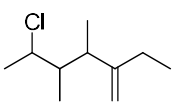


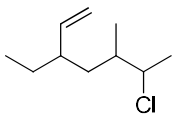
A) 4, 6-Dimethylcyclohexene
B) 3, 5-Dimethylcyclohexane
C) 1, 5-Dimethylcyclohexene
D) 3, 5-Dimethylcyclohexene

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

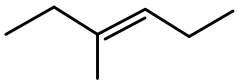
A) 

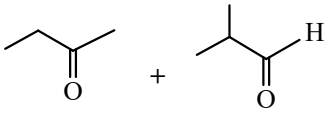
B) 

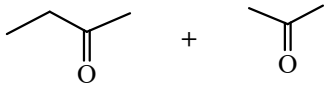
C) 

D) 

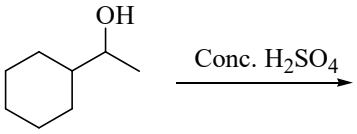
21. Ozonoloysis of the following compound gives …….

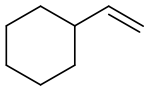
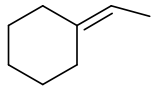
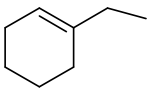
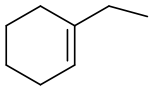


A)  B) 

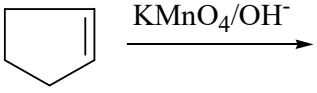
C)  D) 

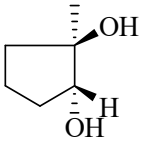
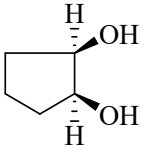
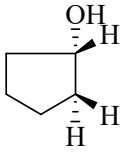
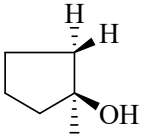
22. The major product for the following reaction is …….



A)  B)  C)  D) 

23. The product of the following reaction is …….

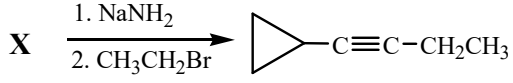


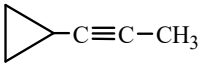
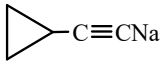
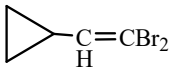
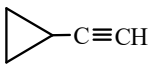
A)  B)  C)  D) 

24. Reaction of alkynes with HBr is an example of …….

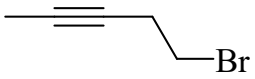
A) Electrophilic substitution reaction.
B) Free radical addition reaction.
C) Electrophilic addition reaction.
D) Nucleophilic substitution reaction

25. The unknown compound <u>X</u> is …….



A)  B)  C)  D) 

26. The correct IUPAC name of the given compound is …….

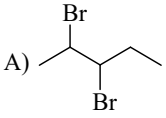


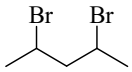
A) 1-Bromo-4-pentyne
B) 5-Bromo-2-pentyne
C) 1-Bromo-3-pentyne
D) 5-Bromo-3-pentyne

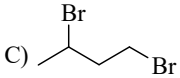
27. The addition of 2 mol HBr to 1-Butyne gives …….

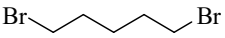
A) 2,3-Dibromobutane
B) 1,3-Dibromobutane
C) 1,1-Dibromobutane
D) 2,2-Dibromobutane

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

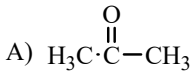
A) 

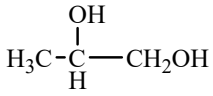
B) 

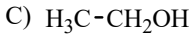
C) 

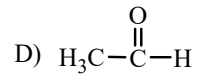
D) 

29. The addition of water to acetylene in the presence of $H_2SO_4/HgSO_4$ gives ……

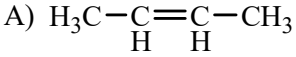
A) 

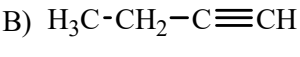
B) 

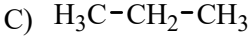
C) 

D) 

30. Which of the following compounds is more acidic?

A) 

B) 

C) 

D)