**جامعة الملك سعود - كلية العلوم – قسم الكيمياء**

**الفصل الدراسي الأول 9143 -8143 هـــ**

**الاختبار الفصلي الأول في مقرر 145 كيم Repeating**

**الزمن: ساعه و نصف**

**أسم الطالب: رقم الطالب:**

**أستاذ المقرر: الأستاذ الدكتور /**

***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 .**

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

1. **The compound X in the following reaction is:**



1. Propane C) Propyne
2. 2-Chloropropane D) Acetylene
3. **The common name of methylbenzene is:**
4. Toluene C) *p*-Cresol
5. Anisol D) Xylene
6. **How many σ and π bonds are in the following structure:**



1. 12 sigma and 4 pi bond C)11 sigma and 2 pi bond
2. 6 sigma and 2 pi bond D) 10 sigma and 4 pi bond
3. **The major product of the following reaction is:**



1. **The type of hybridization of the indicated carbon in the following structure is:**



1. sp C) sp3d
2. sp3 D) sp2
3. **Which of the following structures is aromatic?**



1. **The compound with the highest boiling point is:**
2. Hexane C) 2-Methylpentane
3. Pentane D) 2,2-Dimethylbutane
4. **Addition of 2 moles HBr to 1-pentyne gives:**
5. *1-Bromopentene* C) 2,2-Dibromopentene
6. 1,2-Dibromopentane D) 2,2-Dibromopentane
7. **One of the expected products of the following reaction is:**



1. **The major product of the following reaction is:**



1. **The halogenation of benzene is:**
2. Electrophilic substitution C) Electrophilic addition
3. Nucleophilic addition D) Nucleophilic substitution
4. **Addition of HBr to cyclopropane gives:**



1. **Oxidation of m-xylene by KMnO4 yields:**



1. **The structure of *p*-chlorobenzylbromide is:**



1. **The product of the following reaction is:**





1. **The product from the reaction of with FeBr3/Br2 is:**



1. **Ozonoloysis of 1-methylcyclopentene gives:**



1. **What is the correct IUPAC name of the given structure?**



1. 4, 6-Dimethylcyclohexene C) 3, 5-Dimethylcyclohexane
2. 1, 5-Dimethylcyclohexene D) 3, 5-Dimethylcyclohexene
3. **The number of isomers for the molecular formula C4H10 is:**

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

1. **The product of the following reaction is:**



1. 1-Bromopentane C) 1-Bromopropane
2. Pentane D) Octane
3. **Methylcetylene is the Common name for?**
4. Ethene C) Ethyne
5. Propyne D) Propene
6. **The correct IUPAC name of the given compound is :**



1. 1-Bromo-4-pentyne C) 5-Bromo-2-pentyne
2. 1-Bromo-3-pentyne D) 5-Bromo-3-pentyne
3. **The most reactive compound in alkylation of the following substituted benzenes is:**



1. **Which of the following compounds has the shortest carbon-carbon bond?**

A) CH2CH2 B) CH3CH3 C) CHCH D) CH3CH2CH3

1. **The reagent used in the following transformation**

is:

1. Cl2/Light B) Cl2/FeCl3 C) HCl D) HCl/H2O
2. **Which of the following molecules has the smallest dipole moment?**

A) CHF3 B) CBr4 C) CHCl3 D) CH2Cl2

1. **The carbon bearing a positive charge is called:**

A) Carbanion C) Carbocation

B) Anion D) Free radical

1. **The product of the following reaction is :**



A) *cis*-2-Butene C) *trans*-2-Butene

B) Cyclobutane D) Butane

1. **The geometry of the carbon in acetylene is:**

A) Octahedral C) Linear

B) Tetrahedral D) Trigonal planar

1. **Reaction of 1,2-dibromopentane with Zn/acetic gives**

A) Pentene C) Pentane

B) Pentyne D) 2-Bromopentane