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

**الاختبار الفصلى الثاني- مقرر 145 كيم - الفصل الدراسي الثاني (1437-1438هـــ)**

**الزمن: ساعة ونصف اسم الدكتور/**

**اسم الطالب: رقم الطالب:**

**نموذج الإجابة**

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

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

1. **The structural formula of the tertiary alkyl bromide is \_\_\_\_\_\_\_\_\_**



1. **Glycols have \_\_\_\_\_\_\_\_\_ hydroxyl group(s).**

**A)** two **B)** one **C)** four **D)** three

1. **Among the following, which is the least acidic?**



1. **The IUPAC name of**   **is \_\_\_\_\_\_\_\_\_\_**

A**)**1-Bromo-3-methylcyclohexanol **B)** 4-Bromo-2-methylcyclohexanol

**C)** 3-Bromo-1-methylcyclohexanol **D)** 2-Methyl-4-bromocyclohexanol

1. **The compound with the highest boiling point is \_\_\_\_\_\_\_\_\_\_**

**A)** CH3Cl **B)** CH3F **C)** CH3Br **D)** CH3I

1. **The IUPAC name of**  **is \_\_\_\_\_\_\_\_\_\_**

**A)** 4-Ethyl-2-heptyn-5-ol. **B)** 4-Ethyl-5-heptyn-3-ol.

**C)** 4-Ethyl-5-hexyn-2-ol. **D)** 4-Ethyl-2-hexyn-5-ol.

1. **Choose the correct name of the following compound.**

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**A)** 2-Hydroxy-6-heptanone. **B)** 6-Hydroxy-2-octanone.

**C)** 6-Hydroxy-2-heptanone. **D)** 2-Hydroxy-6-octanone.

1. **The following reaction** **gives\_\_\_\_\_\_\_**

**A)** 3-Bromo-2-butanol **B)** 2-Bromo-3-butanol.

**C)** 1-Bromo-2-butanol. **D)**. 2-Bromobutanoxide.

1. **The structure of *p*-methyl anisole is \_\_\_\_\_\_\_\_\_\_**



1. **The product of following reaction** **is \_\_\_\_\_\_\_**

**A)** 1,2-Dichlorobutane. **B)** Dibutylether.

**C)** Butene. **D)** 1-Chlorobutane.

1. **What is the best reagent needed for the reaction below?**



**A)** i) O3, ii) Zn/ H2O **B)** O2/ Zn **C)** PCC **D)** LiAlH4

1. **Which of the following is called *p*-bromobenzyl alcohol?**



1. **The product of the following reaction is \_\_\_\_\_\_\_\_\_\_**



1. **The correct order of increasing boiling point is \_\_\_\_\_\_\_\_\_**

**A)** Propane <Diethyl ether < ethanol **B)** Ethanol < Diethyl ether< propane

**C)** Ethanol < propane < Diethyl ether **D)** Diethyl ether < propane < ethanol

1. **What are the products obtained when isopropyl methyl ether is reacted with excess HI?**



1. **The following reaction**  **yields \_\_\_\_\_\_**

**A)** *o*-Bromophenol **B)** 2,4,6-Tribromophenol**.**

**C)** *m*-Bromophenol **D)** 2,4-Dibromophenol

1. **Which of the following alcohols would be oxidized to 2-propanone?**

**A)** 2-propanol **B)** 2-methyl-2-propanol **C)** 1-butanol **D)** Ethanol

1. **Among the following alkenes, which one produces tertiary butyl alcohol upon acid-catalyzed hydration?**

**A)** CH3 – CH2 – CH = CH2 **B)** (CH3)2C = CH2

**C)** CH3 – CH = CH2 **D)** CH3 – CH = CH – CH3

1. **Formation of diethyl ether from ethanol is based on a \_\_\_\_\_\_\_\_**

**A)** hydrogenation reaction **B)** oxidation reaction

**C)** dehydrogenation reaction **D)** dehydration reaction

1. **The correct IUPAC name of the following structure**  **is \_\_\_\_**

**A)** 4,6-Dimethyl-2-heptenal **B)** 5-Isopropyl-4-methyl-2-pentenal

**C)** 2,4-Dimethyl-7-heptenal **D)** 2,4-Dimethyl-5-heptanal

1. **Ether is more volatile than an alcohol having the same molecular formula. This is due to \_\_\_\_\_\_\_\_**

**A)** Hydrogen bonding in ethers

**B)** Alcohols having resonance structures

**C)** Hydrogen bonding in alcohols

**D)** Dipolar character of ethers

1. **In the following sequence of reactions,**



**The compound ‘C’ is \_\_\_\_\_\_\_\_\_**

**A)** propanal **B)** *n*-propyl alcohol

**C)** isopropyl alcohol **D)** *n*-butyl alcohol

1. **Treatment of Acetone with excess of ethanol in the presence of hydrochloric acid (H+) yields \_\_\_\_\_\_\_\_\_**



1. **The following reaction**  **gives \_\_\_\_\_\_\_**



1. **What is the product of the following reaction?**



**A)** 2,5-Dimethyl-4-hexanol **B)** 2-Methylhexanal

**C)** 2,5-Dimethyl-3-hexanol **D)** 2-Methylhexane

1. **Bromoethane reacts with X to form diethyl ether. What is X?**

**A)** Na2S2O3 **B)** H2SO4 **C)** NaOH **D)** C2H5ONa

1. **The common name for the following structure**  **is \_\_\_\_\_\_\_\_\_**

**A)** 3-Propoxypropene **B)** Allyl propyl ether

**C)** Vinyl propyl ether **D)** Allyl butyl ether

1. **The following reaction**  **gives \_\_\_\_\_\_\_**



1. **The product of the following reaction**  **is \_\_\_\_\_\_\_**



1. **Which of the following reaction sequences would be the correct for the synthesis of 2-pentanone?**

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