

# ORGANIC CHEMISTRY FINAL EXAM

**Done by:** 

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1-Which of the following is used to prepare Benzoyl chloride from benzoic acid? **Options:** Cl2 and H2O So2 and cl2 Soci2 2-What is the maximum number of optical isomers for a cpmpound with 4 chiral carbons? **Options:** 16 12 4 None of the answers answer:16 3-Which is the following are not alcohol 1-(CH<sup>3</sup>)<sup>3</sup>COH 2-(CH3)<sup>2</sup>C(OH)CH<sup>3</sup> 3-CH<sup>3</sup>(CH<sup>2</sup>)<sup>2</sup>CHO all of the following4 answer:3 4-Hydrocarbon with all single bond are called **Aliphatic Alkanes Alkenes Aromatic** answer:alkanes 5-the number of electrons in the valence shell of aluminum: **A-1 B-2 C-3** 

### 6-what's the name of the alkane that has two carbon atoms:

- A-methane
- **B-ethane**
- **C-propane**
- **D-butane**

**Answer:b** 

# 7-What is the electron configuration of a carbon atom with a mass number of 6

- $1.1s^2 2s^2 2p^2$
- $2.1s^2 2s^2 2p^4$
- $3.1s^2 2s^1 2p^3$
- $4.1s^2 2s^2 3p^2$

answer:1

# 8-the most stable conformation of propane is:

- a) Eclipsed
- b) Staggered
- c) Antiperiplanar
- d) All conformations have the same stability

**Answer:b** 

# 9-the least stable conformation of propane is:

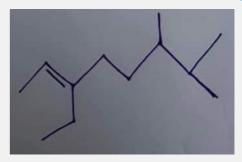
- 1. Eclipsed
- 2. Staggered
- 3. Boat
- 4. Chair
- 5. Planar

Answer:1



## Determine the correct IUPAC name to this picture

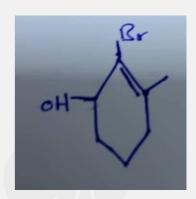
- a) (E)-3,6,7-trimethyloct-3-ene
- b) 3-methyl-6,7-octene-2-yne
- c) 4-ethyl-6,7-dimethyl octene
- d)3-ethyl-6,7-dimethyl octene



Answer:

### Determine the correct IUPAC name to this picture

- a. 1-bromo-2-hydroxy-3-methyl-1-hexene hydroxyl
- b. 2-Bromo-3-hydroxy-4-methylpentanol
- c. 1-(2-Hydroxyethyl)-4-bromo-3-methyl-1-butene
- d. 1-Bromo-2-hydroxy-3-methylhex-5-en-1-ol.



answer:a



اعزم وكد فإن مضيت فلا تقف، واصبر وثابر فالنجاح محقق ليس الموفق من تواتيم المُنى، لكن من رزق الثبات موفق خليل مطران