

**GUJRANWALA BOARD**

**Chemistry (New Scheme) Paper: II (Group: II) Time: 15 Minutes Marks: 12**

**Code: 7486**

**Objective**

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1. Formula of urea is  
a.  $\text{NH}_2\text{COONH}_4$     b.  $\text{NH}_2\text{COONH}_2$     c.  $\text{NH}_2\text{CONH}_4$     d.  $\text{NH}_2\text{CONH}_2$
2. Which one of the following disease causes liver inflammation?  
a. Typhoid    b. jaundice    c. Cholera    d. hepatitis
3. Acid rain affects the aquatic life by clogging fish gills because of  
a. Lead metal    b. chromium metal    c. mercury metal    d. aluminum metal
4. Temporary hardness is because of  
a.  $\text{Ca}(\text{HCO}_3)_2$     b.  $\text{CaCO}_3$     c.  $\text{MgCO}_3$     d.  $\text{MgSO}_3$
5. Which one the following is reducing sugar?  
a. Glucose    b. maltose    c. succrose    d. Starch
6. Thousands of the amino acids polymerize to form  
a. Carbohydrates    b. proteins    c. lipids    d. vitamins
7. Alkenes are prepared from alcohols by a process called  
a) Dehydrogenation    b) dehalogenation    c) dehydration    d) dehydrohalogenation
8. The strong heating of coal in retorts in the absence of air is called  
a. Fractional distillation    b) Sublimation    c) roasting    d) distillation
9. The product of Lewis Acid Base reaction is called Adduct. The bond between the adduct specie is:  
a. Ionic    b. covalent    c. metallic    d. co-ordinate covalent
10. Dilute acids react with carbonates to produce the given products except  
a. Salt    b. water    c. carbon dioxide    d. hydrogen
11. The characteristics of reversible reactions are the following except:  
a. Products never recombine to form reactants  
b. They never complete  
c. They proceed in both ways  
d. They have a double arrow between reactants and products
12. Reactions which have comparable amount of reactants and products at equilibrium state have  
a. Very small  $K_c$  value  
b. Very large  $K_c$  value  
c. moderate  $K_c$  value  
d. none of these

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Note: Section I is compulsory. Attempt any two (2) questions from Sections II.

**SECTION - I**

**2. Write short answers to any FIVE (5) questions. (2 x 5 = 10)**

- i. How is dynamic equilibrium established?
- ii. What is relationship between active mass and rate of reaction?
- iii. Why at equilibrium state reaction does not stop?
- iv. Define a complete reaction.
- v. What is meant by neutralization reaction? Give an example.
- vi. Write down two uses of sodium chloride.
- vii. Define conjugate acid and conjugate base.
- viii. Why pure water is not a strong electrolyte?

**3. Write short answers to any FIVE (5) questions. (2 x 5 = 10)**

- i. How did Wholer prepare urea? Give its equation.
- ii. Give the condensed and structural formulas of  $C_2H_{14}$
- iii. What is functional group? Give an example.
- iv. Which functional groups are present in alkenes and alkynes?
- v. Write down any two sources of alkenes.
- vi. Write down the structural formula of glucose?
- vii. Write down tow disadvantages of fat soluble vitamins.
- viii. What does DNA stand for?

**4. Write short answers to any FIVE (5) questions. (2 x 5 = 10)**

- i. Why  $CO_2$  is called a green house gas?
- ii. Why the flood risks are increasing?
- iii. Write down tow effects of ozone depiction?
- iv. Explain the disease cholera.
- v. Define hard water.
- vi. Define metallurgy.
- vii. What is the principle of Solvay's process?
- viii. Describe the formation of petroleum.

**SECTION - II**

**5. (a) State law of mass action and derive an expression for equilibrium constant for given reaction: (5)**



**(b) Explain Lewis concept of acid and base. (4)**

**6. (a) Write down two methods for the preparation of alkanes. (5)**

**(b) Describe the uses of lipids. (4)**

**7. (a) Write down a note on fractional distillation of petroleum. (5)**

**(b) Explain four important waterborne diseases. How can these be prevented? (4)**