

Name.....

Date: - 06 – 05 – 2020

**Chemistry: - 2<sup>nd</sup> Year Test # 4 Time: - 20min..... Marks 17**

- I. Which one nitrogenous base is not present in Ribonucleic acid: (a) Thiamine (b) Uracil (c) Adenine (d) Cytosine
- II. Which of the following pairs has same type of linkage between their structural units?  
(a) PVC and Bakelite (b) Proteins and Nylon (c) Nylon and polyethylene (d) Protein and PVC
- III. Macronutrients per acre required in quantity ranging from: (a) 2 – 200 Kg (b) 3 – 200 Kg (c) 4 – 200 Kg (d) 5 – 200 Kg
- IV. The word paper is derived from the name of which reedy plant (a) rose (b) sun flower (c) papyrus (d) popular
- V. Which is not a calcarious material (a) lime (b) clay (c) marble (d) marine shell
- VI. Which one is not the property of CO? (a) Help in photosynthesis (b) Lighter than air (c) water soluble (d) highly toxic
- VII. Average residence time of methane in atmosphere is (a) 3 – 7 years (b) 1 – 2 years (c) 3 – 4 years (d) 3 – 5 years
- VIII. Which one contents of waste water mobilize the bound toxic ions like  $Pb^{+2}$ ,  $Cd^{+2}$  &  $Hg^{+2}$  from sediments into water? (a) Live stock waste (b) Oil spoilage (c) detergents (d) pesticides
- IX. A single chloride free radical can destroy how many ozone molecules (a)  $10^2$  (b)  $10^3$  (c)  $10^4$  (d)  $10^5$
- X. Newspaper can be recycled again and again by how many times? (a) 2 (b) 3 (c) 4 (d) 5
- XI. Two moles of ethanoic acid are heated with  $P_2O_5$ , the product formed is:  
(a) butanoic acid (b) acetic anhydride (c) two moles of ethanal (d) two moles of ethanol
- XII. Glacial acetic acid at low temperature is a (a) semi solid (b) snow like solid (c) viscous liquid (d) thin liquid
- XIII. The nature of Gly is (a) acid (b) basic (c) neutral (d) weakly acidic
- XIV. Which of the following is the other name of lactic acid (a)  $\alpha$ -hydroxy propionic acid (b)  $\beta$ -hydroxy propionic acid (c) propionic acid (d) Butyric acid
- XV. Palmitic acid is (a)  $C_{17}H_{33}COOH$  (b)  $C_{15}H_{31}COOH$  (c)  $C_{15}H_{29}COOH$  (d)  $C_6H_5COOH$
- XVI. Ethanoic acid reacts with  $LiAlH_4$  to give (a)  $C_2H_6$  (b)  $C_3H_7OH$  (c)  $C_6H_5CH_2OH$  (d)  $C_2H_5OH$
- XVII. Which one is the origin of fatty acids? (a) Milk (b) Butter (c) Red ants (d) Oils and fats

**Chemistry: - (Subjective) 2<sup>nd</sup> Year Test # 4**

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Section- II Time: 2hrs: 40 min....

22 x 2 = 44

**Q. No 2. Attempt all 8 questions**

8x2=16

- i. What is peptide bond? How is it formed?
- ii. How will you convert iodomethane into ethanoic acid?
- iii. What are the fatty Acids?
- iv. How will you convert 2- Butene into ethanoic acid?
- v. What types of reactions are shown by carboxylic Acids?
- vi. Justify amphoteric behavior of amino acids
- vii. Discuss the term "rancidity".
- viii. Give difference between thermoplastics and thermosetting plastics.

**Q. No 3. Attempt all 8 questions**

8x2=16

- i. What are the Zwitterions? Are they amphoteric?
- ii. How will you convert Chloromethane into Acetic Acid?
- iii. What types of reactions are shown by carboxylic Acids?
- iv. Give mechanism of Acid amide formation.
- v. Point out the difference between Sucrose and maltose.
- vi. What do we mean acid number and iodine number?
- vii. What is the difference between Glycoside linkage and peptide linkage?
- viii. In what way fats and oils are different?

**Q. No 4 Attempt all 6 questions**

6x2=12

- i. What are the fertilizers? Why are they needed?
- ii. What do you understand by term "setting of cement"?
- iii. What is the composition of a good Portland cement?
- iv. What are the essential raw materials used in the production of pulp?
- v. What is the effect of spilled oil on marine life?
- vi. What are landfills and leachates?

**Section- III**

**Note:** Attempt all questions

3x8 = 24

- Q. No 5.** (a) Describe the 'Acid rain and Smog' 4  
(b) Describe the chemistry and importance of Ozone 4
- Q. No 6.** (a) Describe methods and importance of Recycling of Wastes 4  
(b) What is environment? Discuss its various components? 4
- Q. No 7.** (a) Describe incineration of solid waste along with its disadvantages 4  
(b) How water is made potable? Discuss in detail 4

