

# Hemchandracharya North Gujarat University, Patan

- Bachelor of Vocation

Pharmaceutical Chemistry Semester - II

End Term Examination, April, 2017

PC-213 – Biochemistry

Time: 2 hrs

Date:

Maximum marks: 50

**Q.1 Answer all questions. Each question carries 1 mark .**

(9\*1=9Marks)

- One of the following is not aldose  
a) Glucose b)Galactose c) Mannose d)Fructose
- What is the molecular formula for Glucose?  
a) CH<sub>3</sub>OH c)C<sub>12</sub>H<sub>22</sub>O<sub>11</sub>  
b) C<sub>6</sub>H<sub>12</sub>O<sub>6</sub> d)C<sub>6</sub>H<sub>12</sub>O<sub>5</sub>
- Which of the following is a polymer of fructose?  
a) Inulin b)Cellulose c)Dextrin d)Glycogen
- Give 2 examples of disaccharides.
- Triacylglycerols are  
a) soluble in water  
b) soluble in water at elevated temperature insoluble in water  
c) partially soluble in water  
d) Insoluble in water
- Amino acids are building blocks of  
a) Carbohydrates b) Protein c)Lipids d)Nucleic acids
- Define Enzyme
- Sulphure containing amino acid is  
a) alanine b) glycine c) threonine d) methionine
- The enzyme which can add water to a carbon-carbon double bond or remove water to create a double bond without breaking the bond is  
(A) Hydratase (B) Hydroxylase  
(C) Hydrolase (D) Esterase
- In enzyme kinetics K<sub>m</sub> implies  
(A) The substrate concentration that gives one half V<sub>max</sub>  
(B) The dissociation constant for the enzyme-substrate complex  
(C) Concentration of enzyme  
(D) Half of the substrate concentration required to achieve V<sub>max</sub>

**Q. 2 Answer any 5 questions. Each question carries 4 marks.**

(5\*4=20Marks)

- Define and classify carbohydrates with suitable examples.
- Write a note on functions of carbohydrates.
- Describe the biological functions of lipids.
- Explain the classifications of amino acids
- Write a note on role of proteins
- Describe the irreversible (Suicide) inhibition

**Q.3 Answer any 3 questions. Each question carries 7 marks.**

(3\*7=21Marks)

- Describe the structural classifications of proteins
- Write a note on Polysaccharides
- Explain the classification of lipids
- Derive M-M equations and give its modification.