

PARUL UNIVERSITY
PARUL INSTITUTE OF VOCATIONAL STUDIES
DEPARTMENT OF PARAMEDICAL AND HEALTH SCIENCES

Year : 1 - B.Sc.
Subject Code: 19100108
Subject Name: BIOCHEMISTRY

Date: (29/11/2018)
Time: 10:00 – 11:30am
Total Marks: 30

Instructions

- 1) All questions are compulsory.
- 2) The number to the right indicates full marks.
- 3) Draw diagrams wherever necessary.

Q - 1 Describe (any 2 out of 3)

7.5x2=15Marks

- 1) Definition, classification and properties of fatty acids. (1+3+3.5)
- 2) Enumerate the various hazards that can occur in a clinical lab & discuss about the hazards from dangerous chemicals.
- 3) Define: Carbohydrates. Give the classification of Carbohydrates with examples. Enlist the biomedical importance of carbohydrates. (1+4.5+2)

Q - 2 Short Notes (any of 2 out of 4)

5x2=10Marks

- 1) Explain three major buffer systems of the body. (2+1.5+1.5)
- 2) Explain dissociation of weak acid and weak base with examples. (2.5+2.5)
- 3) Difference between Starch & Glycogen. Add a note on hydrolysis of starch. (3+2)
- 4) (a) Write a short note on Disaccharides.
(b) How you will prepare 10% W/V NaCl Solution ?

Q - 3 Short questions (any 5 out of 7)

1x5=5Marks

- 1) What is formula for dilution?
- 2) What is K_w constant?
- 3) What is the major storage form of fatty acids in the body?
- 4) What is the difference between pK_a and pH ?
- 5) Define: Normality
- 6) Define: pH
- 7) If 5 liters of water is added to 2 moles of glucose to make a solution. What is the Molarity?