



الوقت  
راية

Final semester examination of first semester 2016-2017

- Q1)** Fill the following blanks: 15 marks
- 1- Amino acids are more ----- than they are in ether, dichloromethane, and other common organic solvents.
  - 2- ----- have only one type of monosaccharide units.
  - 3- Proteins form colloidal solution, this is due to ----- of protein molecules.
  - 4- At the isoelectric pH the protein exists as -----.
  - 5- Amino acids are ----- than most carboxylic acids and ----- than most amines.

- Q2)** 1- Draw the chemical structure of the following compounds: (answer two only) 5 marks
- a- Glucosamine    b- proline    c-  $\gamma$ -aminobutyric acid
- 2- Use the shorthand system to nomenclature the polypeptide chains which are consist of the following amino acids: (answer two only). 5 marks
- a- phenylalanine, tyrosine, cysteine, valine  
b- cysteine, proline, leucine, glycine  
c- methionine, lysine, histidine, arginine

- Q3)** Choose the correct answer: (answer five only) 15 marks
- 1- Amino acids with side chain containing basic groups are:
- a- tryptophan                      b- phenylalanine  
c- arginine                          d- histidine
- 2- The hydrogen: oxygen atom ratio in carbohydrates is:
- a-1:2            b-3:2            c-2:1            d-2:3
- 3- Denaturation of proteins results in:
- a- Disruption of primary structure  
b- Breakdown of peptide bonds  
c- Irreversible changes in the molecule  
d- Destruction of hydrogen bonds
- 4- the reaction of D-glucose with excess of phenylhydrazine give final product: (write the chemical structure of the correct choose).
- a-D-glucuronic acid                      b-L-glucosazone  
c-L-glucuronic acid                      d-D-glucosazone
- 5- The protein present in hair is:
- a- Keratin                      b- Elastin  
c- Myosin                      d- Tropocollagen
- 6- Which one of the following is an essential amino acid:
- a- glycine                      b- Phenylalanine  
c- Tyrosine                      d- Proline

  
Department head  
Dean of college