

BCH 333 (Physical Biochemistry)

Second semester 1432 – 1433 AH

Mid Term Exam (*Theoretical*)

Student name: ………………………………………………………………………………………

Academic ID number: …………………………………

**Q1: Answer the following statements with True or False and correct the false one:**

1. All amino acids give a purple positive result with biuret. ( )
2. Estimation of protein concentration by colorimetric methods is depending on the absorbance of the colored product of U.V light. ( )
3. A higher A280/A260 value of protein sample means a lower nucleic acid percentage in this sample. ( )

**Q2: Choose the correct statement:**

1. Salting out:
2. High protein–protein interaction.
3. High protein–solvent interaction.
4. Low protein–protein interaction.
5. Spectroscopic method of protein estimation
6. Biuret method.
7. A280/A260 method.
8. Bradford method.
9. Dialysis:
10. Removal of salt molecules from a protein solution.
11. Separate DNA from protein.
12. Precipitates the protein.

1. Ammonium sulphate:
2. Safe on most of proteins.
3. Low soluble in water.
4. Sensitive to temperature effect.

**Q3: Matching each term in the column A to the appropriate phrase in column B:**

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| --- | --- | --- |
| **A** |  | **B** |
| 1- Differential centrifugation. |  | Lactate dehydrogenase |
| 2- Salting out. |  | Subcellular isolation |
| 3- Dialysis. |  | Rupture the cell membranes |
| 4- Cytosol (cytoplasm). |  | Increase protein solubility |
| 5- Biuret |  | Rupture the organelle membranes |
| 6- Tissue homogenization |  | Desalting proteins |
|  |  | Protein precipitation |
|  |  | Acid phosphatase |
|  |  | Protein estimation |