

**Sheet Exam**

*First year*

*Date: 19/9/2011*

*Time allowed : 15 min*

*Student name:*

*Student number:*

*Mention by name only :-*

**1- Two examples of milk proteins.**

a)

b)

**2- Two types of lipids of milk.**

a)

b)

**3- Two components of whey of milk clot.**

a)

b)

**As regards DNA extraction**

**4- SDS act by .....**

**5- Ethanol causes .....**

**6- High concentration of salts ( 2M NaCl) causes.....**

**7- Aim of DNA extraction is .....**



**Mansoura University**  
**Faculty of Medicine**  
**Medical Bioch. Dep.**  
**First year –Final Reset Exam**

**19/09/2011**

**Total marks: 75**  
**Time allowed: 3 hours**

**Answer the following questions:-**

- 1- Explain the following:-
  - a-Four applications of PCR (2marks )
  - b- Nutritional classification of amino acids (2marks )
  - c- Post-translation modifications of proteins. (2marks )
  - d-Okazaki fragments (3marks )
  - e-Three Characteristics of genetic codons (3marks)
- 2- Give a short note on each of the following:-
  - a- Oligomeric proteins. (2marks)
  - b- Mutation: types& causes (4marks)
  - c- Three Posttranscriptional modification of mRNA. (3marks)
  - d- Hydrophobic bonds in protein structure. (2marks)
  - e-Two functions of histones (2marks )
- 3- Analyze the following:-
  - a-Sources of reactive oxygen species (2marks each)
  - b- Four Co- dehydrogenases
  - c- Four functions of nucleotides
  - d- Fractionation of proteins.
  - e- Mitochondrial DNA
- 4- Describe each of the following :-
  - a- Mutarotation (2marks each)
  - b- Biomedical importance of dermatan sulfate
  - c- Charged polar amino acids
  - d- Biological importance of lipids.
  - e- Prevention of rancidity.
- 5- Summarize and revise :-
  - a- Activation of proenzymes. (2marks each)
  - b- Group specificity of enzymes.
  - c- Functions of folic acid.
  - d- Functions of vitamin A.
  - e- Gene therapy.
- 6- Compare between each pair of the following :-
  - a- Folliculation & Coagulation of proteins. (2marks each)
  - b- Essential & Non essential fatty acids.
  - c- Proteoglycans& Glycoproteins( four aspects only).
  - d- Ribozymes &Antienzymes.
  - e- House keeping genes & tissue specific genes.
- 7- Enumerate Two functions for each of the following :-
  - a- Dextran (2marks each)
  - b- Lipoproteins
  - c- Cerebrosides.
  - d- Tocopherol.
  - e- 1,25 dihydroxycholecaliferol.

**GOOD LUCK**