**Sylhet Women’s Medical College**

**3rd Term Examination**

**Subject: Biochemistry**

**SWMC-09, (SAQ)**

**Full marks -100 Time – 3hrs Date- 25.03.2015**

Answer any 10 questions from each group. All questions carry equal marks.

**GROUP –A**

1. Define Nucleic acids. Briefly mention the structure of DNA. State the organization of DNA into chromosome. 1+2+2
2. Define Replication.What are the requirements of replication? What is okazaki fragement? 1+3+1

1. Define gene. What are its regulatory sequences? Mention their location. What is RELP?

1+2+1+1

1. Define transcription. How termination of transcription occurs. What is transcription unit?

1+3+1

1. Mention the differences between.

a) Sense codon and nonsense codon. b) Genetic code and codon 2.5+2.5

1. Define translation. What are the components required for translation? Mention the initiation steps of translation. 1+2+2
2. What are the types of DNA damage? How it is repaired? 3+2
3. What is recombinant DNA technology? Mention the basic steps and uses of PCR. 1+2+2

1. Define mutation. What are the types of mutation? Mention the consequence of altering the nucleotide sequence of codons. 1+2+2
2. Mention the type & function of RNA polymerase.Draw & lebel the structure of tRNA. 3+2
3. Write short Notes on: i) Plasmid ii) DNA library 2.5+2.5

**GROUP –B**

1. What investigations would you suggest for diagnosis and monitoring of DM? What is IGR?

4+1

2.Define SI unit. Enumerate the basic units with their symbols. 1+4

3.Mention the liver function test. How can you differentiate different types of jaundice

biochemically? 2+3

4.Define and classify hyper lipoproteinemias. What is fatty liver? 1+3+1

5.What are the thyroid function tests? Write down the biochemical features of hypo and hyperthyroidism.

2+3

6.Define lipid profile. Mention the normal values of lipid profile in SI unit & conventional unit.

Wright down the function of HDL. 1+3+1

7. Give an account of renal function tests with their normal values. How blood Urea differs from

BUN? 3+2

8. Define quality control. What do you mean by precession, accuracy, sensitivity and specificity?

1+4

9. Name five clinically important enzymes with their normal values. Mention the enzymes pattern in

liver & myocardial diseases. 2+3

10. Mention the common lab hazards. How you can minimize this in clinical lab? 2.5+2.5

11. Write short notes on : a)Photometry b)HbA1C 2.5+2.5