**Sylhet Women’s Medical College**

**3rd Term Examination**

**Subject: Biochemistry**

**SWMC-09, (SAQ)**

**Full marks -80 Time – 2 hrs 40 min Date- 9.03.2015**

Answer any 8 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 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. Write short Notes on: i) Cell cycle ii) Wobble phenomenon 2.5+2.5

**GROUP –B**

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

4+1

1. Mention the liver function test. How can you differentiate different types of jaundice biochemically? 2+3
2. Define and classify hyper lipoproteinemias. What is fatty liver? 1+3+1
3. What are the thyroid function tests? Write down the biochemical features of hypo and hyperthyroidism. 2+3

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

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

1. Give an account of renal function tests with their normal values. How blood Urea differs from BUN? 3+2

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

1+4

1. Name five clinically important enzymes with their normal values. Mention the enzymes pattern in liver & myocardial diseases. 2+3

1. Write short notes on : a)Photometry 2.5+2.5

b)HbA1C