UNIVERSITY OF JAFFNA, SRI LANKA
EXAMINATION FOR ALLIED HEALTH SCIENCES DEGREE
BASIC SCIENCES- FIRST YEAR FIRST SEMESTER- JULY, 2013
AHSBB1104- BASIC BIOCHEMISRTY

Date: 03.09.2013

Answer all questions.   **Time: 2 hours**

PAPER II

1.

1.1 The energy obtained by the oxidation of glucose under aerobic condition is higher than that obtained under anaerobic condition. Explain.   **(50 marks)**

1.2 Explain how would you prepare and perform the oral glucose tolerance test to a patient?   **(50 marks)**

2.

2.1 Diagrammatically show the metabolism of LDL.   **(50 marks)**

2.2 What are the biochemical tests you would perform to conform hypothyroidism.

(15 marks)

2.3 Diagrammatically show the thyroxin hormone biosynthesis.   **(35 marks)**

3.

3.1 Explain the factors which affect the oxygen dissociation curve of haemoglobin with figures.   **(50 marks)**

3.2 A 40 year old male presented with history of pale colour stool and dark colour urine for three days. His laboratory finding show that, total serum bilirubin level was 5.0 mg/dL. (Normal range 0.3-1.0 mg/dL).

3.2.1   What could be the clinical condition?   **(10 marks)**

3.2.2   Explain the tests that you would perform to confirm the above condition.

(40 marks)

4.

4.1 List the components needed for the protein synthesis. **(15 marks)**

4.2 Diagrammatically explain the initiation process of protein synthesis. **(45 marks)**

4.3 Give the different classes, distributions and functions of Immunoglobulin.

(40 marks)

5.

5.1 A 50 year old male presented with joint pain from morning, and previous day he had participated in a party and he consumed high amount of alcohol with meat. Give biochemical explanation to the above condition. **(50 marks)**

5.2 Briefly explain how ammonia produced during catabolism of aminoacid is detoxified in human body. **(50 marks)**

6.

6.1 Explain the importance of dietary fibers in different clinical conditions. **(40 marks)**

6.2 Write short notes on

    6.2.1   Supplementary action of protein. **(30 marks)**

    6.2.2   Nutritional requirement for pregnant mother. **(30 marks)**