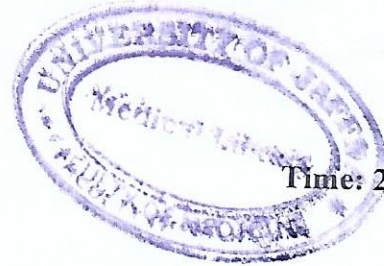


FACULTY OF MEDICINE, UNIVERSITY OF JAFFNA, SRI LANKA  
EXAMINATION FOR ALLIED HEALTH SCIENCES DEGREES

FIRST YEAR FIRST SEMESTER EXAMINATION- 2022

AHSBB1146-BASIC BIOCHEMISTRY

Paper II



Date: 07.12.2023

Time: 2 Hours

ANSWER ALL SIX QUESTIONS

Answer each Question on Separate Answer Book.

1. Regarding unconjugated hyperbilirubinaemia;
  - 1.1 List the different pathological conditions for the cause. (20 Marks)
  - 1.2 Explain the biochemical changes that are observed in the serum and urine. (35 Marks)
  - 1.3 Name the tests and give the principles of the tests to detect the bilirubin in serum and the expected metabolite in the urine. (25 Marks)
  - 1.4 Explain the causes for the changes in the faeces. (20 Marks)
  
2.
  - 2.1 List the probable causes of Type I diabetes mellitus. (30 Marks)
  - 2.2 Write short notes on glycosylated haemoglobin. (20 Marks)
  - 2.3 Give the principle of the specific method to measure plasma glucose level. (20 Marks)
  - 2.4 Untreated diabetes mellitus patients lose weight. Explain. (30 Marks)
  
3.
  - 3.1 Diagrammatically show the metabolism of VLDL. (30 Marks)
  - 3.2 Give reasons for the development of ketoacidosis. (30 Marks)
  - 3.3 Explain the role of liver and kidney in detoxifying ammonia. (40 Marks)

4. 4.1 Explain the different tests which could be carried out to test and confirm  
4.1.1 iron metabolic disorders. (35 Marks)  
4.1.2 thyroid function. (35 Marks)
- 4.2 Explain how NADH is oxidised in the respiratory chain to give ATP. (30 Marks)
5. 5.1 Explain the role of vitamin A in vision. (40 Marks)
- 5.2 Alcohol consumption by a person with glucose -6- phosphatase deficiency causes Hyperuricemia. Explain. (40 Marks)
- 5.3 Give examples for post-translations modifications of proteins. (20 Marks)
6. 6.1 Explain acquired immunity? (30 Marks)
- 6.2 Calculate the daily calorie requirement of a 50-year-old sedentary adult female with 170cm height and 75kg of weight. (35Marks)
- 6.3 Calculate the amounts (in grams) of carbohydrate, lipid and protein the female has to consume to obtain the calorie mentioned in **Section 6.2**. (15Marks)
- 6.4 Explain the process and advantages of parboiling the rice. (20 Marks)

