Index No:.....(80)

UNIVERSITY OF RUHUNA – FACULTY OF MEDICINE

ALLIED HEALTH SCIENCES DEGREE PROGRAMME

FIRST BPHARM PART II EXAMINATION – MAY 2015

PH 1232 BIOCHEMISTRY II (SEQ)

TIME: 2 HOURS

INSTRUCTIONS

- Answer all questions.
- No paper should be removed from the examination hall.
- Do not use any correction fluid.
- Use illustrations where necessary.

1. Explain the following statements.

   1.1 Regulation of metabolic pathways by feedback inhibition. ***(50 marks)***

1.2 Osmotic diarrhoea in lactose intolerance. ***(50 marks)***

2. Explain the biochemical basis of the following.

2.1 Occurrence of haemolytic anaemia in sickle cell disease. ***(50 marks)***

Index No:..... (81)

2.2 Association of immuneparesis with monoclonal gammopathy. ***(50 marks)***

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Index No:.....

3. Explain the following briefly.

3.1 Structural organization of DNA into chromosomes. ***(20 marks)***

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

3.2 Biosynthesis of urea from amino acids. ***(50 marks)***

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

3.3 Biochemical basis of skin hypopigmentation in phenylketonuria. ***(30 marks)***

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

4. Describe the following.

4.1 Basic structure of purine and pyrimidine nucleotides. ***(20 marks)***

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Index No:.....

4.2 *De novo* synthesis of purine and pyrimidine bases. ***(50 marks)***

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

4.3 Biochemical basis of allopurinol use in gout. ***(30 marks)***

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....