

Rajiv Gandhi University of Health Sciences

First Year B.Sc. (Nursing) (Basic) Degree Examination – May 2007

[Time: 3 Hours]

[Max. Marks: 80]

PHYSIOLOGY AND BIOCHEMISTRY (Old Scheme)

Your answer shall be specific to question asked. Draw neat and labelled diagrams wherever necessary.

Use separate answer books for section A and section B.

QP Code: 1652 - Section A - PHYSIOLOGY [40 Marks]

LONG ESSAY (ANSWER ANY ONE)

1 x 10 = 10 marks

1. Classify leucocytes. Describe their structure and functions. Mention pathological conditions producing Leukocytosis and leucopenia.
2. Explain the physiological functions of cortisol. List the clinical features of Cushing's syndrome.

SHORT ESSAY (ANSWER ANY FOUR)

4 x 5 = 20 marks

3. Explain the immunological test for pregnancy.
4. Discuss the effect of stimulation of sympathetic nervous system of cardio-vascular and digestive systems
5. Mention the methods of artificial respiration. Explain any one of them.
6. Draw a labeled diagram of E.C.G. Explain the cause for different waves.
7. What is action potential? Explain the ionic basis for action potential in skeletal muscle.

SHORT ANSWERS

5 x 2 = 10 marks

8. List the functions of liver
9. Mention any four gastro-intestinal hormones.
10. List any four substances absorbed in the proximal convoluted tubule of the kidney.
11. What are the receptors for a) Vision b) Audition c) Smell and d) Taste?
12. What is colour blindness? What are its types?

QP Code: 1653 - Section B - BIOCHEMISTRY [40 Marks]

Use separate answer book

LONG ESSAY (ANSWER ANY ONE)

1 x 10 = 10 marks

1. Classify liver function tests. Discuss any two liver function tests in detail.
2. Name the ketone bodies. Describe the pathways of ketone body formation and utilization. Add a note on ketosis.

SHORT ESSAY (ANSWER ANY FOUR)

4 x 5 = 20 marks

3. Coenzyme forms, metabolic functions and deficiency symptoms of vitamin B12 (Cobalamin)
4. What is a nucleotide? Give an example. Mention the functions of nucleotides.
5. Digestion of carbohydrates.
6. Oral glucose tolerance test
7. Differences between DNA and RNA

SHORT ANSWERS

5 x 2 = 10 marks

8. Importance of lipids in diet
9. Glutamine synthesis in brain
10. State the normal range of plasma levels of a) Calcium b) Phosphorus c) Cholesterol d) Sodium
11. What are heteropolysaccharides? Give four examples.
12. Biuret test.
