SC—2010

FIRST YEAR B.Sc. (M.L.T.) DEGREE EXAMINATION, 2002

PRINCIPLES OF PATHOLOGY AND MICROBIOLOGY

Time : Three Hours Maximum : 80 Marks

Answer Sections A and B in **separate** *answer-books.*
Your answers shall be specific to the questions asked.
Draw neat and labelled diagrams wherever necessary.

Section A (Pathology)

(40 marks)

I. Long Essays : (Answer any *one*)

1 What are the types of specimens received in a medical laboratory ? What are the types of fixatives used for preservation of specimens ? Add a note on technique of formalin fixation.

2 Write an essay on semen analysis and its clinical significance.

(1 × 10 = 10 marks)

II. Short Essays : (Answer any *four*)

3 What is decalcification ? How do you test completion of decalcification ?

4 What are the findings you record under physical examination of urine ? How do you measure specific gravity of urine sample ?

5 Write briefly about stool examination.

6 What is dehydration ? Write briefly about different types of dehydrating agents, their advantages and disadvantages.

7 Write briefly about organization of a quality control program for a small laboratory.

(4 × 5 = 20 marks)

III. Short Answers :

8 How do you test for occult blood in stool ?

9 What is mordant ? Give examples.

10 List types of urinary casts.

11 What is honing and stropping ?

12 How do you remove formalin pigment from tissue sections ?

(5 × 2 = 10 marks)

Section B (Microbiology)

(40 marks)

I. Long Essays : (Answer any *one*)

1 Classify bacterial culture media with examples. Add a note on transport media.

2 Classify various methods of sterilization. Write briefly about sterilization by moist heat.

(1 × 10 = 10 marks)

II. Short Essays : (Answer any *four*)

3 Robert Koch.

4 Cell wall.

5 Dark field microscope.

6 Transduction.

7 Spores.

(4 × 5 = 20 marks)

III. Short Answers :

8 Viable bacterial count.

9 Facultative anaerobes.

10 Disc diffusion sensitivity test.

11 Sugar fermentation test.

12 L-forms.

(5 × 2 = 10 marks)

38

SC—2008

FIRST YEAR B.Sc. (M.L.T. AND RADIOGRAPHY) DEGREE EXAMINATION, 2002

ANATOMY

Time : Three Hours Maximum : 80 Marks

Your answers shall be specific to the questions asked.
Draw neat and labelled diagrams wherever necessary.

I. Long Essays : (Answer any *two*)

1 Name the different muscular tissue. Describe the skeletal muscle in detail.

2 Describe the venous drainage of upper limb.

3 Name the different parts of urinary system. Describe the bladder in detail.

(2 × 10 = 20 marks)

II. Short Essays : (Answer any *eight*)

4 Blood supply of stomach.

5 Appendix.

6 Name the cranial nerves.

7 Brachial artery and its branches.

8 Sturcutures forming thoracic cage.

9 Hip bone.

10 Tongue.

11 Name the bony prominences in the lower limb.

12 Pulmonary circulation.

13 Lymph node.

(8 × 5 = 40 marks)

III. Short Answers :

14 Name the compartments of leg.

15 Name the *four* branches of femoral artery.

16 Name the bones of the wrist.

17 Name the different parts of pituitary gland.

18 Name any *four* facial muscles.

19 Name any *four* paranasal air sinuses.

20 Name different parts of lower end of Humerus.

21 Name the different parts of Aorta.

22 Name the boundaries of Axilla.

23 Name different simple epithelium.

(10 × 2 = 20 marks)

FIRST YEAR B.Sc. (M.L.T.) DEGREE EXAMINATION, 2002

PHYSIOLOGY AND BIOCHEMISTRY

Time : Three Hours Maximum : 80 Marks

Answer Sections A and B in **separate** *answer-books.*
Your answers shall be specific to the questions asked.
Draw neat and labelled diagrams wherever necessary.

Section A (Physiology)
(40 marks)

I. Long Essays : (Answer any *one*)

1 Describe the size, shape, functions, count and physiological variations of RBL count. What is Anaemia ?
2 Draw a neat diagram of nephron and label its parts. What are the functions of kidney ? What is GFR ?

(1 × 10 = 10 marks)

II. Short Essays : (Answer any *four*)

3 Composition and functions of bile juice.
4 Vital capacity.
5 Cretinism.
6 Pregnancy tests.
7 Refractive errors of eye and its correction.

(4 × 5 = 20 marks)

III. Short Answers :

8 Name the contractile proteins present in the muscle and name the chemical substance secreted at the neuromuscular junction.
9 Name the junctional tissues of heart.
10 Name the muscles of inspiration.
11 Name the permanent family planning methods in male and female.
12 Name the ascending tracts.

(5 × 2 = 10 marks)

Section B (Biochemistry)
(40 marks)

I. Long Essay :

1 Classify proteins. Give example for each class. Explain the structure of proteins.

(10 marks)

II. Short Essays : (Answer any *four*)

2 Nucleotides.
3 Uses of spectrophotometer.
4 pH meter.
5 Polysaccharides.
6 Compound lipids.

(4 × 5 = 20 marks)

III. Short Answers :

7 Calculate equivalent weight of sodium hydroxide.
8 Cleaning of laboratory glassware.
9 Milk sugar.
10 Name *two* differences between DNA and RNA.
11 Name the essential fatty acids.

(5 × 2 = 10 marks)

34

SC—2008

FIRST YEAR B.Sc. (M.L.T. AND RADIOGRAPHY) DEGREE EXAMINATION, 2002

ANATOMY

Time : Three Hours Maximum : 80 Marks

Your answers shall be specific to the questions asked.
Draw neat and labelled diagrams wherever necessary.

I. Long Essays : (Answer any *two*)

1 Name the different muscular tissue. Describe the skeletal muscle in detail.

2 Describe the venous drainage of upper limb.

3 Name the different parts of urinary system. Describe the bladder in detail.

(2 × 10 = 20 marks)

II. Short Essays : (Answer any *eight*)

4 Blood supply of stomach.

5 Appendix.

6 Name the cranial nerves.

7 Brachial artery and its branches.

8 Sturcutures forming thoracic cage.

9 Hip bone.

10 Tongue.

11 Name the bony prominences in the lower limb.

12 Pulmonary circulation.

13 Lymph node.

(8 × 5 = 40 marks)

III. Short Answers :

14 Name the compartments of leg.

15 Name the *four* branches of femoral artery.

16 Name the bones of the wrist.

17 Name the different parts of pituitary gland.

18 Name any *four* facial muscles.

19 Name any *four* paranasal air sinuses.

20 Name different parts of lower end of Humerus.

21 Name the different parts of Aorta.

22 Name the boundaries of Axilla.

23 Name different simple epithelium.

(10 × 2 = 20 marks)