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SC—1730

FIRST YEAR B.Sc. (M.L.T. AND RADIOGRAPHY) DEGREE EXAMINATION, 2001

ANATOMY

(Common for B.Sc., M.L.T. and Radiography)

Time : Three Hours | Maximum : 80 Marks

Your answer shall be specific to the questions asked.
Draw neat and labelled diagrams wherever necessary.
Answer the question completely in one place only.

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

1 Describe a typical animal cell.

2 Name the chambers of heart. Explain the blood supply and nerve supply of heart.

3 Describe the liver and biliary apparatus.

(2 × 10 = 20 marks)

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

4 Sternum.

5 Brachial plexus.

6 Inferior vena cava.

7 Deltoid muscle.

8 Islet's of Langerhan's.

9 Trachea.

10 Elbow joint.

11 Duramater.

12 Prostate gland.

13 Urinary bladder.

(8 × 5 = 40 marks)

III. Short Answers :

14 Name any *four* cranial nerves.

15 Name any *four* carpal bones.

16 Name any *four* parts of large intestine.

17 Name any *four* muscles of abdominal wall.

18 Name any *four* branches of external carotid artery.

19 Name any *four* structures whose length is eighteen inches.

20 Name any *four* endocrine glands.

21 Name any *four* folds of cranial duramater.

22 Name any *four* law of ossification.

23 Name any *four* special sensory organs.

(10 × 2 = 20 marks)

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SC—1732

FIRST YEAR B.Sc. (M.L.T.) DEGREE EXAMINATION, 2001

PATHOLOGY AND MICROBIOLOGY

Time : Three Hours

Maximum : 80 Marks

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

Section A (Pathology)

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

1 Write an essay on what you will do if you are asked to do a "urine detail" examination.

2 Write an essay on detailed stool examination.

(1 × 10 = 10 marks)

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

3 Write about important records to be maintained in a laboratory.

4 Describe briefly what is paraffin impregnation in processing a tissue sample.

5 What are the precautions to be taken in examining a CSF sample ?

6 How do you prepare decalcifying fluid ?

7 What are the various casts found in urine ?

(4 × 5 = 20 marks)

III. Short Answers :

8 Name the uses of formaldehyde.

9 Name the uses of rectified spirit.

10 Steps in cleaning a microscope.

11 Name the instruments used in grossing.

12 Name some parasitic ova/eggs seen in stool samples.

(5 × 2 = 10 marks)

Section B (Microbiology)

I. Long Essays :

1 Describe the moist heat methods of sterilisation.

(1 × 10 = 10 marks)

II. Short Essays :

2 Enriched media.

3 Bacterial spores.

4 Bacterial growth curve

5 Robert Koch.

(4 × 5 = 20 marks)

III. Short Answers :

6 Facultative an-aerobes.

7 Accessory growth factors.

8 Incineration.

9 Catalase test.

10 Uses of bacterial filters.

(5 × 2 = 10 marks)

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FIRST YEAR B.Sc. (M.L.T.) DEGREE EXAMINATION, 2001

PHYSIOLOGY AND BIOCHEMISTRY

Time : Three Hours Maximum : 80 Marks

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

Section A (Physiology)

I. Long Essays : (Answer any *one* of the following)

1 Describe the classification, size, shape, functions, count, and physiological variations of WBC with neat diagrams.

2 Mention the hormones produced by the posterior pituitary gland. What are its actions ? What is diabetes insipidus ?

(1 × 10 = 10 marks)

II. Short Essays : (Write a brief relevant notes on any *four* of the following)

3 Functions of saliva.

4 GFR.

5 Draw a neat diagram of spirogram and show the various volumes and caracities.

6 Composition and functions of cerebro spinal fluid.

7 Mention the properties of cardiac muscle. What is meant by greater circulation and lesser circulation ?

(4 × 5 = 20 marks)

III. Short Answers : (Write most appropriate answer for the following)

8 Mention the abnormal constituents of urine.

9 What is ovulation ? Mention the tests for ovulation.

10 Mention the tests for hearing.

11 What is the normal blood glucose level and blood calcium level ?

12 Draw a neat diagram of neuron and label its parts.

(5 × 2 = 10 marks)

Section B (Biochemistry)

I. Long Essays :

1 Define Carbohydrates. Classify carbohydrates with examples.

(10 marks)

II. Short Essays : (Write short notes on any *four*)

2 Conjugated proteins.

3 Photoelectric colorimeter.

Turn over

4 Buffers.

5 Phospholipids.

6 Preparation of 0.1 N sodium hydroxide solution.

(4 × 5 = 20 marks)

III. Short Answers :

7 Define Atomic weight.

8 Use of hot air oven.

9 Composition of succrose.

10 Name the different types of pipettes.

11 Functions of m-RNA.

(5 × 2 = 10 marks)

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SC—1284

FIRST YEAR B.Sc. (M.L.T. AND RADIOGRAPHY) DEGREE EXAMINATION, 2001

ANATOMY

(Common for B.Sc., M.L.T. and Radiography)

Time : Three Hours

Maximum : 80 Marks

Your answer shall be specific to the question asked.
Draw neat and labelled diagrams wherever necessary.
Answer the question completely in one place only.

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

1 Name the parts of a long bone. Give its blood supply and development.

2 Name the parts of respiratory system. Describe the pleura.

3 Name all the endocrine glands. Describe briefly the thyroid gland.

(2 × 10 = 20 marks)

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

4 Carpal bones.

5 Vagus nerve.

6 Brachial artery.

7 Gluteus maximus muscle.

8 Vermiform appendix.

9 Diaphragm.

10 Ankle joint.

11 Cerebrospinal fluid.

12 Spermatogenesis.

13 Uterine tubes.

(8 × 5 = 40 marks)

III. Short Answers :

14 Name any *four* openings in the right atrium.

15 Name any *four* accessory male reproductive organs.

16 Name the parts biliary apparatus.

17 Name any *four* branches of abdominal aorta.

18 Name any *four* structures of spermatic cord.

19 Name the *four* stages in mitotic cell division.

20 Name any *four* muscles of facial expression.

21 Name any *four* examples of epithelial tissue.

22 Name any *four* synovial joints of upper limb.

23 Name any *four* nerves present in the orbit.

(10 × 2 = 20 marks)

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SC—1285-A

FIRST YEAR B.Sc. (M.L.T.) DEGREE EXAMINATION, 2001

PHYSIOLOGY AND BIOCHEMISTRY

Time : Three Hours

Maximum : 80 Marks

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

Section A (Physiology)

(40 marks)

I. Long Essays. (Answer any *one* of the following) :

1 Mention the clotting factors in proper order and describe the intrinsil mechanism of blood coagulation. Name the clotting disorders.

2 Describe the composition, functions and regulation of gastric juice secretion.

(1 × 10 = 10 marks)

II. Write a brief relevant notes on any *four* of the following :—

3 Myxoedema.

4 Viyal capacity.

5 Juxta glomerular apparatus.

6 Draw a neat diagram of ECG and lablel its parts.

7 Spermatogenesis.

(4 × 5 = 20 marks)

III. Write most appropriate answer for the following :—

8 Four hormones that increases the blood sugar level.

9 Cause of first heart sound and second heart sound.

10 Mention the functions of middle ear.

11 Define Reflex action.

12 Four functions of skin.

(2 × 5 = 10 marks)

Section B (Biochemistry)

(40 marks)

I. Long Essay :

What are lipids ? Classify lipids giving examples. (10 marks)

II. Write short notes on any *four* :

1 Explain the structure of proteins.

2 Name the disaccharides. What is its composition and name the linkags present in them.

Turn over

3 How would you prepare and standardise in sodium hydroxide ?

4 Photo electric colorimeter.

5 Classify RNA and explain the function of each.

(4 × 5 =

III. Write Short Answers :

1 Define Acid and Base.

2 Uses of indicators.

3 Use of pH meter.

4 Amylose and amylopectin.

5 DNA.

(2 × 5 =

13

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FIRST YEAR B.Sc. (M.L.T.) DEGREE EXAMINATION, 2001

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 Write an essay on how you will ensure quality control in your laboratory.

2 What is a fixative ? What are the ideal qualities of a fixatives ? Write a note on the various fixatives you know ?

(1 × 10 = 10 marks)

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

1 Write a note on the physical examination of urine.

2 Write a note on record keeping in a laboratory.

3 Describe briefly the eggs of taenia solium, trichuris trichura, ankylostoma duodenale and ascaris lumbricoides.

4 How do you prepare decalcifying fluid ? How do you put it to use ?

5 What are the tests for bilirubin and urobilinogen ?

(4 × 5 = 20 marks)

III. Short Answers :

1 How do you do Benedict's test ?

2 Name the different crystals found in urine.

3 What is floatation technique of stools examination ?

4 Name the instruments required for grossing of histopathology specimens.

5 How do you prepare eosin stain ?

(5 × 2 = 10 marks)

Section B (Microbiology)

(R.S.)

(40 marks)

I. Long Essays :

'Describe the morphology of a bacterial cell.

(10 marks)

Turn over

II. Short Essays :

1 Uses of Water bath in the microbiology laboratory.

2 Autoclave.

3 Transformation.

4 Koeh's postulates.

(4 × 5 = 20 m

III. Short Answers :

1 Bacterial growth curve.

2 Enrichment medium.

3 Hot-air oven.

4 Preservation of cultures.

5 Urease test.

(5 × 2 = 10 m