56

Total No. of Pages : 1]

Code No.: RC-2930

Ist B.Sc. MEDICAL LABORATORY TECHNOLOGY EXAMINATION OF NOVEMBER 2003 (RS) ANATOMY - THEORY PAPER

Time : 3 Hours]

[Max. Marks : 80

N.B. *:*

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

I. *Long Essays: (Answer any two) :* [2x10=20]

1) Name different parts of respiratory system. Describe Larynx.
2) Write various parts of urinary system. Describe urinary bladder.
3) Mention all the endocrine glands. Describe anatomy of pituitory gland.

II. *Short Essays : (Answer any eight) :* [8x5=40]

4) Structure of Eye.
5) Mention all cranial nerves in order.
6) Testes.
7) Typical intercostal space.
8) Supra renal gland.
9) Anal canal with its surgical importance.
10) Superior vena cava.
11) Brachial plexus.
12) Hip bone.
13) Histology of hyaline cartilage.

III. *Short Answers : (Answer all questions)* [10x2=20]

14) Name different parts of pharynx.
15) Name four lymphoid glands of body.
16) Name arteries supplying blood to heart.
17) Name bones of forearm and leg.
18) Name any four branches of descnding aorta.
19) Name any four cranial nerves.
20) Name different parts of Nephron.
21) Name four epithelium.
22) Name structures passing through porta hepatis.
23) Name different Pericardiums.

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55

Total No. of Pages : 2]

Code No.: RC-2931

Ist B.Sc. MEDICAL LABORATORY TECHNOLOGY EXAMINATION OF NOVEMBER, 2003

PHYSIOLOGY AND BIOCHEMISTRY - PAPER - 1 - A (RS)

Time : 3 Hours] *[Max. Marks : 80*

SECTION - A

PHYSIOLOGY

I. ***Long Essay:*** *(Answer any one).* [1x10=10]

1) Describe briefly the structure and functions of WBC (White blood cells).

2) Describe briefly the Regulation of Respiration.

II. ***Short Essays*** *: (Answer any four).* [4x5=20]

3) Composition and Functions of Gastric Juice.

4) ECG (Electro Cardio gram) in Healthy Adult Persons.

5) Functions of INSULIN.

6) Origin and Functions of Pyramidal Tract.

7) Neuro muscular junction.

III. ***Short Answers*** *:* [5x2=10]

8) What are the causes of I and II heart sounds.

9) Mention two functions of Testosterone.

10) Name two Anticoagulants and a function of each.

11) What is GFR (Glomerular Filtration Rate) and what is its normal value.

12) Mention the functions of Rods and Cones of Retina.

P.T.O.

SECTION - B

BIO-CHEMISTRY

I. ***Long Essay:*** [1x10

1) What are proteins. Classify proteins with examples.

II. ***Short Essays :*** [4x5

2) pH meter and its uses.

3) Polysaccharides.

4) Isomerism.

5) Buffers.

III. ***Short Answers :*** [5x

6) Normal solution.

7) Molecular weight.

8) Basic Amino Acids.

9) Conjugated proteins.

10) DNA

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54

Total No. of Pages : 2] **Code No.: RC-2932**

1st B.Sc. MEDICAL LABORATORY TECHNOLOGY EXAMINATION OF NOVEMBER 2003

PATHOLOGY I AND MICROBIOLOGY I - PAPER - A (RS)

Time : 3 Hours] *[Max. Marks : 80*

SECTION - A

PATHOLOGY

I. ***Long Essays:*** *(Answer any one).* [1x10=10]

1) Describe briefly processing of tissue for paraffin sectioning. What are different embedding media ? Add a note on technique of paraffin embedding.

2) Write an essay on examination of body fluids. Add a note on its clinical significance.

II. ***Short Essays*** *: (Answer any four).* [4x5=20]

1) Write briefly about grossing technique.

2) How do you examine cerebrospinal fluid ?

3) How do you test for sugar and ketone bodies in the urine ?

4) Describe the steps involved in record keeping from the time of receipt of specimen to despatch of report.

5) How do you prepare Harris's Hematoxylin ?

III. ***Short Answers*** *:* [5x2=10]

1) How do you test for protein in Urine ?

2) List the permanent mounting media.

3) Fixatives used in electron microscopy.

4) Types of microscopes.

5) What is Azoospermia ?

P.T.O.

SECTION - B

MICROBIOLOGY

I. ***Long Essay:*** *(Answer any one).* [1x10=10]

1) Discuss bacterial growth curve. Add a note on bacterial nutrition.

2) Describe the genetic mechanisms of drug resistance in bacteria.

II. ***Write Short Essays*** **:** *(On any four).* [4x5=20]

1) Louis Pasteur

2) Differential media

3) Flagella

4) Lysogenic conversion

5) Polymerase chain reaction

III. ***Write Short Answers*** **:** [5x2=10]

1) Indicator media

2) Eukaryotes

3) Glutaraldehyde

4) Methyl red test

5) Sterlisation control

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(Pages : 2)

RC—2597

FIRST YEAR B.Sc. (M.L.T.) DEGREE EXAMINATION, 2003

PHYSIOLOGY AND BIOCHEMISTRY

Time : Three Hours

Maximum : 80 Marks

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

Section A (Physiology)

(*Maximum : 40 Marks*)

I. Long Essay. (Answer any *one* question)

1 Describe briefly the mechanism of coagulation of blood.

2 Describe the regulation of arterial blood pressure.

(1 × 10 = 10 marks)

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

3 Composition and functions of gastric juice.

4 Transport of oxygen in blood.

5 Structure and function of a nephron.

6 Functions of thyroxine.

7 Draw a diagram of Visual pathway and label its parts.

(4 × 5 = 20 marks)

III. Short Answers :

8 Name *two* anticoagulants and their actions.

9 Mention *two* functions of the skin.

10 Name the respiratory centres.

11 What is GFR (Glomerular filtration rate). What is its normal value ?

12 Mention *two* functions of plasma proteins.

(5 × 2 = 10 marks)

Section B (Biochemistry)

(*Maximum : 40 Marks*)

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

1 What is colorimetery ? Explain the principles and uses of colorimetery.

2 Derive an equation for rotation of $[H^+]$ and $[OH^-]$ in solutions and pH values.

(1 × 10 = 10 marks)

II. Short Essays. Answer any *four* questions :

3 Define the Equivalent weight. Calculate the equivalent weight of Sulphuric Acid.

Turn over

4 Indicators.

5 Chemical balance.

6 Classification of lipids with examples.

7 Explain the preparation of (i) 0.1 N NaOH ; and (ii) 2N HCl.

(4 × 5 = 20 marks)

III. Short Answers :

8 How do you prepare 10 % NaCl solution ?

9 Draw the diagram of Bunsen burner.

10 Use of standard curve.

11 Define the terms (i) Normality ; and (ii) Molarity.

12 What is standard solution ? Draw the diagram of the apparatus used for the preparation of standard solution.

(5 × 2 = 10 marks)