Rajiv Gandhi University of Health Sciences, Karnataka

First year B.Sc. (M.L.T) Degree Examination – Feb/March 2011

Time: Three Hours **Max. Marks: 80 Marks**

PATHOLOGY & MICROBIOLOGY

Q.P. CODE: 1604 & 1605

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary

Use separate answer books for section A and section B

Q.P. Code: 1604 – Section A – PATHOLOGY (40 Marks)

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Describe process of decalcification and various agents used
2. Describe in detail the Cerebrospinal fluid analysis

SHORT ESSAYS (Answer any Four) **4 x 5 = 20 Marks**

3. Frozen section and its uses
4. Casts in urine
5. Fixatives
6. Semen analysis
7. Tissue processor

SHORT ANSWERS **5 x 2 = 10 Marks**

8. Name two clearing agents
9. Embedding meida
10. Types of mordants
11. Importance of indexing of reports
12. List the methods to demonstrate ova in stool

Q.P. Code: 1605 – Section B – MICROBIOLOGY (40 Marks)

Use separate answer book

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Describe the methods of genetic material transfer in bacteria
2. Define and classify sterilization. Discuss sterilization by moist heat above 100^0C

SHORT ESSAYS (Answer any Four) **4 x 5 = 20 Marks**

3. Cell wall
4. Laboratory diagnosis of urinary tract infections
5. Dark ground microscopy
6. IMViC tests
7. Bacterial growth curve

SHORT ANSWERS **5 x 2 = 10 Marks**

8. Functions of pili
9. Lyophilisation
10. Morphology of spores
11. Koch's postulates
12. Transport media

*****

Rajiv Gandhi University of Health Sciences, Karnataka

First year B.Sc. (M.L.T) Degree Examination – Feb/March 2011

Time: Three Hours **Max. Marks: 80 Marks**

PHYSIOLOGY & BIOCHEMISTRY

Q.P. CODE: 1602 & 1603

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary

Use separate answer books for section A and section B

Q.P. Code: 1602 – Section A – PHYSIOLOGY (40 Marks)

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Describe the ABO system of blood grouping. Add a note on hazzards of mismatched blood transfusion
2. Describe the composition, regulation and functions of pancreatic juice

SHORT ESSAYS (Answer any Four) **4 x 5 = 20 Marks**

3. Lung volumes and capacities
4. Functions of insulin
5. Micturition reflex
6. Composition and functions of Cerebro-Spinal Fluid
7. Neuro-Muscular transmission

SHORT ANSWERS **5 x 2 = 10 Marks**

8. Name any four clotting factors
9. Define blood pressure. Give the normal value
10. List any four functions saliva
11. List any four features of cretinism
12. Define : (A) Dyspnoea (B) Shock (C) GFR (D) Puberty

Q.P. Code: 1603 – Section B – BIOCHEMISTRY (40 Marks)

Use separate answer book

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Define proteins and classify them with suitable example
2. Derive Henderson – Hasselbach equation. Add a note on the biological significance of P^H

SHORT ESSAYS (Answer any Four) **4 x 5 = 20 Marks**

3. Add a note on polysaccharides
4. Functions of lipids
5. Nucleotides
6. Chemical balance
7. DNA

SHORT ANSWERS **5 x 2 = 10 Marks**

8. Define acids and bases
9. Isoelectric PH of proteins
10. Ribosomal RNA
11. Centrifuge
12. Define molality and molarity

*****

Rajiv Gandhi University of Health Sciences, Karnataka

First year B.Sc. M.L.T. Degree Examination – Feb/March 2011

Time: Three Hours **Max. Marks: 80 Marks**

ANATOMY – (Revised Scheme)

Q.P. CODE: 1601

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Mention the structures present in the oral cavity. Describe the gross anatomy of tongue
2. Name the parts of the large intestine. Describe the caecum in detail
3. Classify muscles with examples. Enumerate the differences between skeletal and cardiac muscle

SHORT ESSAYS **8 x 5 = 40 Marks**

4. Prostate gland
5. Differences between large arteries and veins microscopically
6. Right suprarenal gland
7. Coverings of testis
8. Branches of coeliac trunk
9. Cell division
10. Abdominal aorta
11. Bronchopulmonary segments of right lung with applied anatomy

SHORT ANSWERS **10 x 2 = 20 Marks**

12. Name four accessory male reproductive organs
13. Stratified squamous keratinized epithelium
14. Name four openings into the right atrium
15. Name four bones of facial skeleton
16. Name four bones of lower limb
17. Name the branches of left coronary artery
18. Draw the microscopic picture of L.S of compact bone
19. List four differences between lymphnode and palatine tonsil
20. Name the peritoneal ligaments (folds) attached to stomach
21. Name four organs related to right kidney

*****

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. M.L.T. Degree Examination – Aug / Sep 2011

Time: Three Hours **Max. Marks: 80 Marks**

ANATOMY – (Revised Scheme)

Q.P. CODE: 1601

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Name the parts of excretory system. Describe kidney under the following headings: (a) Location (b) Parts (c) Relations (d) Blood supply (e) Applied anatomy
2. Name the parts of gastro – intestinal tract (GIT). Describe stomach under the following headings: (a) Location (b) Parts (c) Blood supply (d) Nerve supply (e) Applied aspects
3. Name the endocrine glands present in the body. Describe the thyroid gland under the following headings: (a) Location (b) Parts (c) Blood supply (d) Histology (e) Applied aspects

SHORT ESSAYS **8 x 5 = 40 Marks**

4. Brachial plexus
5. Histology of uterus. Neat labelled diagram with salient features
6. Gluteus maximus origin, insertion, nerve supply, action, appledanatomy
7. Interior of right atrium
8. Paranasal air sinuses
9. Liver prostate gland
10. Blood supply of heart, both arterial supply and venous drainage
11. Spinal cord

SHORT ANSWERS **10 x 2 = 20 Marks**

12. Name the ventricles of brain
13. Name any four carpal bones
14. Name the layers of pleura. Give any one clinical condition
15. Name the branches of arch of aorta
16. Name the parts of brain stem
17. Name any two forearm muscles
18. Name any two veins which drains the lower limb
19. Name the movement occurring at the elbow joint
20. Draw a neat labeled diagram of microscopic structure of trachea (histology)
21. Name the muscles of respiration

*****

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. (M.L.T) Degree Examination – Aug / Sep 2011

Time: Three Hours **Max. Marks: 80 Marks**

PHYSIOLOGY & BIOCHEMISTRY

Q.P. CODE: 1602 & 1603

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary

Use separate answer books for section A and section B

Q.P. Code: 1602 – Section A – PHYSIOLOGY (40 Marks)

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. State landsteiner's law. Explain erythroblastosis of foetalis
2. Explain the counter-current mechanism of kidney

SHORT ESSAYS (Answer any Four) **4 x 5 = 20 Marks**

3. Explain the mechanism of Neuro-muscular transmission
4. Write briefly on the secondary sexual characteristic in males
5. Briefly discuss the functions of middle ear
6. Explain the different phases of cardiac cycle
7. Enumerate the functions of Bile

SHORT ANSWERS **5 x 2 = 10 Marks**

8. Enumerate any four functions of skin
9. Name hormones secreted by anterior pituitary
10. Draw the ECG waves. Mention their causes.
11. Define GFR and give its normal value
12. Name four contraceptive method in males

Q.P. Code: 1603 – Section B – BIOCHEMISTRY (40 Marks)

Use separate answer book

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Define colorimetry. Briefly discuss Beer – Lambert's Law. Explain the components of colorimeter with schematic diagram
2. what are lipids? Classify them giving suitable examples. List the important functions of lipids

SHORT ESSAYS (Answer any Four) **4 x 5 = 20 Marks**

3. Use, care and maintenance of a PH meter
4. Use, care and maintenance of a centrifuge
5. Give the procedural steps in weighing a chemical compound using physical balance
6. Define anomers and epimers with one example each
7. Explain the clover leaf structure of tRNS

SHORT ANSWERS **5 x 2 = 10 Marks**

8. Dessicator
9. Principle and procedure of biuret test
10. Uses of standard solution in laboratory
11. Primary structure of protein
12. Non reducing sugars

*****

Rajiv Gandhi University of Health Sciences, Karnataka

I year B.Sc. (M.L.T) Degree Examination – Aug / Sep 2011

Time: Three Hours **Max. Marks: 80 Marks**

PATHOLOGY & MICROBIOLOGY

Q.P. CODE: 1604 & 1605

Your answers should be specific to the questions asked. Draw neat labeled diagrams wherever necessary

Use separate answer books for section A and section B

Q.P. Code: 1604 – Section A – PATHOLOGY (40 Marks)

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Describe the steps in tissue processing of a formalin fixed specimen
2. Describe in detail the physical examination of urine. Add a note on the preservatives for urine examination

SHORT ESSAYS (Answer any Four) **4 x 5 = 20 Marks**

3. Mountants
4. Care of microtome knives
5. H & E stain
6. Semen analysis
7. CSF findings in tuberculous meningitis

SHORT ANSWERS **5 x 2 = 10 Marks**

8. Name two decalcifying agents
9. Preparation of buffered formalin
10. Types of wax
11. Indexing of reports
12. Sputum findings in asthma

Q.P. Code: 1605 – Section B – MICROBIOLOGY (40 Marks)

Use separate answer book

LONG ESSAYS (Answer any One) **1 x 10 = 10 Marks**

1. Define and classify sterilization. Discuss hot air oven in detail
2. Discuss the procedure and principle of (A) Kirby Bauer disc diffusion AST (B) Stoke method

SHORT ESSAYS (Answer any Four) **4 x 5 = 20 Marks**

3. Robert koch
4. Bacterial growth curve
5. Anaerobic culture media
6. Bacteriology of water
7. Transduction

SHORT ANSWERS **5 x 2 = 10 Marks**

8. Lawn culture
9. Name four enriched culture media
10. Principle of christensen's urease test
11. Structure & arrangement of flagella
12. Phenotypic variation

*****