1602_2012_1_S182

# Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. (M.L.T) Degree Examination – Feb / Mar 2012

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

## PHYSIOLOGY & BIOCHEMISTRY (RS 1)

## 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 mechanism of coagulation of blood. Add a note on anticoagulants.
2. Draw and label the oxygen dissociation curve of adult haemoglobin and explain the curve.

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

3. Enumerate the functions of CSF.
4. Explain the features seen in diabetes mellitus
5. With a well labeled graph explain the ionic basis of Action Potential.
6. Describe the functions of saliva
7. Functions of testosterone.

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

8. Define mitosis and meiosis.
9. List the components of the conducting system of the heart.
10. Draw a labeled diagram of a nephron
11. List 2 contraceptive methods in male.
12. Function of testosterone

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

**Use separate answer book**

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

1. What are lipids? Classify them with examples.
2. Describe in detail the different isomers of carbohydrates.

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

3. Write a note on functional classification or proteins.
4. Lipoproteins
5. pH meter.
6. Explain the different types of DNA.
7. Write in detail the different structural organization of proteins.

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

8. Mutarotation.
9. Monosaccharide
10. Chemical balance
11. Benedict's test
12. Name the sulphur containing amino acids.

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1604_2012_1_S041

# Rajiv Gandhi University of Health Sciences, Karnataka

I year B.Sc. (M.L.T) Degree Examination – Feb / Mar 2012

**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. When and how would you collect 24 hours urine? Name the preservatives used for such a sample
2. What is the principle of fixation? Describe processing of tissues for routine paraffin sections

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

3. Types of haematoxylins
4. Snop indexing
5. Waste disposal from a laboratory
6. Rothera's test
7. CSF findings in pyogenic meningitis

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

8. What is the role of Bee wax in histopathology laboratory?
9. Fixatives for electron microscopy
10. Name two counter stains
11. Enterotome
12. Tests to assess completion of Decalcification

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

**Use separate answer book**

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

1. Classify sterilization. Describe in detail the working principles of autoclave. Add a note on sterilization controls used
2. Classify bacteria according to morphology. Write briefly about bacterial growth curve and nutritional requirements

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

3. L.J medium
4. Bacterial flagella
5. Differential stains
6. Plasmid
7. Antiseptics and disinfectants

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

8. Dark ground microscopy
9. MacConkey's media
10. Difference between Prokaryotic and Eukaryotic cell
11. Autotrophs
12. Oxidase test

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1226_2012_1_S182

# Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. (M.L.T) Degree Examination – Feb / Mar 2012

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

## ANATOMY (RS-2)

## Q.P. CODE: 1226

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 urinary system and explain in detail about urinary bladder
2. Describe liver in detail
3. Classify joints. Give a detailed account of shoulder joint

**SHORT ESSAYS (Answer any Six)** **6 x 5 = 30 Marks**

4. Blood circulation to stomach
5. Vermiform appendix
6. Pericardium
7. MC burneys point
8. Tongue
9. Structure of neuron
10. Elastic cartilage
11. Ulna

**SHORT ANSWERS (Answer any Ten)** **10 x 3 = 30 Marks**

12. Name the parts of the uterus
13. Name the parts of A tooth
14. Name all the bones of human body
15. Name the opening present in the right atrium
16. Name the part of basal ganglia
17. Orbicularis oculi
18. Name the parts of stomach
19. Porta hepatic
20. Anatomical planes
21. Varicose veins
22. Name the ligaments of uterus
23. Name the cranial nerves

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# Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. M.L.T. Degree Examination – Sep 2012

**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 major lymphoid organs of the body. Describe the spleen under the following headings: (a) Location (b) Gross anatomy (c) Histology (d) Applied anatomy
2. Name the chambers of the heart. Describe the heart under the following headings: (a) External features (b) Interior (c) Blood supply (d) Applied aspects
3. Name the parts of female reproductive system. Describe ovary under the following headings: (a) Location (b) Gross anatomy (c) Histology (d) Applied aspects

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

4. Sternocleidomastoid muscle – origin, insertion, nerve supply and action
5. Draw a neat labeled diagram of microscopic structure of a compact bone
6. Pleura
7. Interior of analcanal with applied aspect
8. Lumbar puncture
9. Thyroid gland
10. Femoral artery
11. Supports of uterus

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

12. Name the different types of cells seen in the islets of Langerhans
13. Name the different parts of ear
14. Anatomical position of the body – define
15. Name the arteries involved in the formation of circle of Willis
16. Name the parts of the extra – billiary apparatus
17. Name the extra ocular muscles of eye
18. Draw a neat labeled diagram of a neuron
19. Name the different types of papilla seen on the tongue
20. Name the bones forming the elbow joint
21. Draw a neat labeled diagram of microscopic structure of ureter (Histology) (diagram only)

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# Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. (M.L.T) Degree Examination – Sep 2012

**Time: 3 Hours** **Max. Marks: 40 Marks**

## Physiology

## Q.P. Code : 1602

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

**(Note : Both QP Codes 1602 and 1603 are to be answered within total duration of 3 hours)**

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

1. Explain the chemical regulation of respiration
2. Describe the composition, regulation and functions of gastric juice

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

3. Describe the following under ESR (A) Definition (B) Any two factors affecting ESR (C) Significance (D) Values in males and females
4. Describe the steps in the synthesis of thyroid hormone
5. Briefly discuss on erthroblastosis fetalis
6. A list any five metabolic functions of the liver
7. Enumerate any five functions of testosterone

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

8. Structure of respiratory membrane
9. Name the bile salts and list their functions
10. Give the chemical classification of endocrine hormones with examples
11. Define (A) Vital capacity (B) Annemia (C) Dysbarsim (D) Cardiac output
12. List four functions of plasma proteins

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# Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. (M.L.T) Degree Examination – Sep 2012

**Time: 3 Hours** **Max. Marks: 40 Marks**

## Biochemistry

## Q.P. Code : 1603

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

**(Note : Both QP Codes 1602 and 1603 are to be answered within total duration of 3 hours)**

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

1. Define carbohydrates. Classify carbohydrates with examples
2. Define equivalent weight. How is the equivalent weight determined? Draw a neat diagram of PH meter

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

3. Denaturation of protein
4. Add a note on different types of balances
5. Functions of Nucleotides
6. Watson – crick model of DNA structure
7. Isoelectric PH of proteins

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

8. Epimerism
9. How do you prepare 100ml of 0.05N $H_2SO_4$
10. t RNA
11. Ion selective electrode
12. Non reducing sugars

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# Rajiv Gandhi University of Health Sciences, Karnataka

I year B.Sc. (M.L.T) Degree Examination – Sep 2012

**Time: 3 Hours** **Max. Marks: 40 Marks**

## Pathology

## Q.P. Code : 1604

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

**(Note : Both QP Codes 1604 and 1605 are to be answered within total duration of 3 hours)**

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

1. How do you gross a tissue sample? Name the tissue bits required to be taken from a resected specimen of uterus
2. Name the various samples received in a laboratory. Describe examination of a sample of Ascitic fluid and its clinical significance

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

3. Methods of decalcification
4. Snop indexing
5. Bile pigments in urine
6. Qualities of an ideal fixative
7. Azoospermia

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

8. Name two types of microtomes
9. Name two bile stained ova
10. Sizes of coverslips
11. Constituents of buffered formalin
12. Types of mountants

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# Rajiv Gandhi University of Health Sciences, Karnataka

I year B.Sc. (M.L.T) Degree Examination – Sep 2012

**Time: 3 Hours** **Max. Marks: 40 Marks**

## Microbiology

## Q.P. Code : 1605

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

**(Note : Both QP Codes 1604 and 1605 are to be answered within total duration of 3 hours)**

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

1. Write an essay on methods of sterilization with special emphasis on dry heat sterilization. Add a note on sterility check
2. Describe in detail various methods of gene transfer in bacteria

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

3. Sugar fermentation media
4. Antibiotics acting on cell wall of bacteria
5. Imvic reaction
6. Louis Pasteur
7. Polymerase Chain Reaction (PCR)

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

8. Selective media for growing bacteria
9. Gas-Pak technique
10. Special stains
11. Differential media
12. Antibiotics acting on protein synthesis

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