Rajiv Gandhi University of Health Sciences, Karnataka

Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination - JUNE 2016

Time: Three Hours | Max. Marks: 100 Marks

Anatomy – Paper I (Revised Scheme II)

Q.P. CODE: 1075

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

LONG ESSAYS 2 x 10 = 20 Marks

1. Describe the Elbow Joint under the following headings:
   a) Formation
   b) Ligaments
   c) Movements
   d) Blood supply
   e) Applied Anatomy
2. Describe the Thoraco-Abdominal Diaphragm with its congenital anomalies.

SHORT ESSAYS 10 x 5 = 50 Marks

3. Ansa Cervicalis
4. Microscopic structure of Elastic Cartilage
5. Red Nucleus
6. Draw neat labeled diagram of Medulla Oblongata at the level of Sensory Decussation.
7. Cubital Fossa
8. Development of Arch of Aorta
9. Primitive Streak
10. Structures under cover of Deltoid Muscle
11. Coronary Sinus
12. Describe a typical intercostal space.

SHORT ANSWERS 10 x 3 = 30 Marks

13. Nasolacrimal Duct
14. Development of tongue
15. Median Nerve in Carpal Tunnel
16. Anterior Interosseous Artery
17. Myotome
18. Secretomotor Fibres of Ciliary Ganglion
19. Foramen Ovale in middle cranial fossa
20. Retro-mandibular Vein
21. Septum Secundum
22. Draw a neat labeled diagram of Histology of Tonsil.

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Rajiv Gandhi University of Health Sciences, Karnataka

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First Phase MBBS Degree Examination – JUNE 2016

Time: Three Hours Max. Marks: 100 Marks

Anatomy – Paper II (RS2 & RS3)

Q.P. CODE: 1076

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

LONG ESSAYS 2 x 10 = 20 Marks

1. Describe the internal features, nerve supply, blood supply and applied anatomy of anal canal. (3+2+2+3)
2. Describe the gluteus maximus muscle under the following headings: origin, insertion, nerve supply and action. Add a note on structures under cover of gluteus maximus. (1+2+2+2+3)

SHORT ESSAYS 10 x 5 = 50 Marks

3. Microscopic anatomy of urinary bladder
4. The mesentery – attachments and contents
5. Stomach bed
6. Inferior vena cava – formation, tributaries and termination
7. Testis – development and developmental anomalies
8. Umbillicus
9. Applied anatomy of femoral canal
10. Inversion and eversion – joints involved and muscles acting
11. Numerical chromosomal anomalies
12. Medial arch of foot

SHORT ANSWERS 10 x 3 = 30 Marks

13. Plantar aponeurosis
14. Peroneus longus
15. Development of pancreas
16. Splenic artery
17. Ilioinguinal nerve
18. Cremaster
19. Trans pyloric plane
20. Differences between male and female bony pelvis
21. Ligamentum patellae
22. Derivatives of foregut – any three

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Rajiv Gandhi University of Health Sciences, Karnataka

Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination - JUNE 2016

Time: Three Hours | Max. Marks: 100 Marks

Physiology – I (RS2 & RS3)

Q.P. CODE: 1077

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

LONG ESSAYS 2 x 10 = 20 Marks

1. Classify T lymphocytes. Explain the mechanism of cellular immunity.
2. Briefly describe the transport of oxygen in blood.

SHORT ESSAYS 10 x 5 = 50 Marks

3. Facilitated diffusion
4. Mechanism of Fibrinolysis
5. Jugular venous pulse
6. Conducting system of the heart
7. Regulation of cerebral blood flow
8. Caissons disease
9. Enterohepatic circulation
10. Movements of intestine
11. Factors affecting GFR
12. Mechanism and regulation of micturition

SHORT ANSWERS 10 x 3 = 30 Marks

13. List six functions of plasma proteins.
14. What is the effect of sympathetic stimulation on pacemaker potential?
15. What is Bainbridge reflex?
16. What is postural hypotension?
17. What is Hering - Breuer reflex?
18. What is pulmonary edema? Name one condition where it is seen.
19. List the functions of Gastrin.
20. What is receptive relaxation?
21. What is the role of vasa recta in counter current mechanism?
22. Functions of large intestine

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Rajiv Gandhi University of Health Sciences, Karnataka

Rajiv Gandhi University of Health Sciences

M.B.B.S. PHASE - I Degree Examination – JUNE 2016

Time: 3 Hrs. [Max. Marks: 100]

PHYSIOLOGY - II (RS2 & RS3)

QP Code: 1078

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

LONG ESSAY 2 X 10 = 20 Marks

1. Describe the dorsal column tract and its functions. How its functions are affected in Brown Sequard's syndrome?
2. Describe the steps involved in the synthesis of thyroxine. Explain its physiological functions.

SHORT ESSAY 10 X 5 = 50 Marks

3. Regulation and actions of aldosterone
4. Clinical features of Cushing's syndrome
5. Hormonal functions of placenta
6. Dark adaptation and nyctalopia
7. Write about storage, release, functions and reuptake of ionic calcium in skeletal muscle.
8. Describe the process of neuromuscular transmission in skeletal muscle.
9. What is EEG? Discuss normal findings of Electro Encephalogram (EEG) in various sleep stages.
10. Difference between Upper Motor Neuron and Lower Motor Neuron lesions
11. Functions of middle ear
12. Body mechanisms activated with exposure to cold

SHORT ANSWERS 10 X 3 = 30 Marks

13. Draw the main connections of neocerebellum with cerebral cortex.
14. Enumerate any three functions of vestibular apparatus.
15. Name three touch receptors. Enumerate three properties of them.
16. Cause and effect of Leutinizing Hormone surge
17. Name two methods for detection of pregnancy. Write about their physiological basis.
18. Differentiate rods from cones.
19. Draw taste pathway from anterior 2/3 of tongue to the cortex.
20. Differentiate endolymph from perilymph
21. Write two functional differences between cardiac and skeletal muscle.
22. Write three differences between A and C type of nerve fibres.

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Rajiv Gandhi University of Health Sciences, Karnataka

Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination - JUNE 2016

Time: Three Hours Max. Marks: 50 Marks

Biochemistry – Paper I (RS2 & RS3)

Q.P. CODE: 1079

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

(Note: Both QP Codes 1079 and 1080 are to be, answered within total duration of three hours)

(Use separate Answer books for QP Code 1079 & 1080)

LONG ESSAYS 1 x 10 = 10 Marks

1. Give an account of Cholesterol biosynthesis with its regulation. Add a note on Atherosclerosis.

SHORT ESSAYS 5 x 5 = 25 Marks

2. What are Uncouplers? Mention the Uncouplers of Oxidative Phosphorylation.
3. Describe Tryptophan metabolism.
4. Define Glycosaminoglycans. Describe its biomedical importance.
5. Isoenzymes
6. Describe Glycogenolysis. How it is regulated?

SHORT ANSWERS 5 x 3 = 15 Marks

7. Biochemical changes in Starvation
8. Competitive inhibition of Enzyme activity
9. Rappaport Leubering cycle
10. Laboratory diagnosis for Hypothyroidism
11. Non-enzymatic Antioxidants

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Rajiv Gandhi University of Health Sciences, Karnataka

Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination - JUNE 2016

Time: Three Hours Max. Marks: 50 Marks

Biochemistry – Paper II (RS2 & RS3)

Q.P. CODE: 1080

Your answers should be specific to the questions asked

Draw neat, labeled diagrams wherever necessary

(Note: Both QP Codes 1079 and 1080 are to be, answered within total duration of three hours)

(Use separate Answer books for QP Code 1079 & 1080)

LONG ESSAYS 1 x 10 = 10 Marks

1. Describe the replication of DNA in Eukaryotes. Mention its inhibitors.

SHORT ESSAYS 5 x 5 = 25 Marks

2. Recombinant DNA Technology and its applications.
3. What are Buffers? Explain the Plasma Buffers in maintaining Acid Base balance.
4. What is Methemoglobin? How it is formed? Mention the causes for Methemoglobinemia. How it is detected?
5. What are Restriction Endonucleases? Give any two examples with their biomedical importance.
6. Describe how Bilirubin is metabolised in the body. Write the normal values of Serum bilirubin.

SHORT ANSWERS 5 x 3 = 15 Marks

7. Balanced Diet
8. Reference values
9. Plasma proteins
10. Tests of Renal Distal Tubular function
11. Specific Dynamic Action

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Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination - DEC 2016

Time: Three Hours | Max. Marks: 100 Marks

Anatomy – Paper I (Revised Scheme II)

Q.P. CODE: 1075

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

LONG ESSAYS 2 x 10 = 20 Marks

1. Describe Thyroid Gland under following heads:
   a) Situation
   b) Capsules
   c) Parts and relations
   d) Blood supply
   e) Development
   f) Applied Anatomy
2. Describe Shoulder Joint under following heads:
   a) Type
   b) Articulating Bones
   c) Ligaments
   d) Relations
   e) Movements and muscles producing movements
   f) Nerve supply
   g) Applied Anatomy

SHORT ESSAYS 10 x 5 = 50 Marks

3. Pleural recesses
4. Somites
5. Describe the Microscopic structure of Hyaline Cartilage
6. Draw and label Floor of 4th Ventricle.
7. Applied Anatomy of Scalp
8. Describe the Microscopic structure of Cornea.
9. Development and Nerve supply of Tongue
10. Lumbricals in Hand and their Nerve supply
11. Development of Inter-atrial Septum
12. Oblique Muscles of Eyeball, their origin, insertion, actions and Nerve supply

SHORT ANSWERS 10 x 3 = 30 Marks

13. Sarcomere
14. Mention branches of the Posterior Cord of the Brachial Plexus
15. End Arteries
16. Major Openings in Respiratory Diaphragm and structures passing through them
17. Derivatives of 1st Pharyngeal Arch, Pouch and Cleft
18. Crus Cerebri
19. Dangerous area of Face
20. Draw and label microscopic structure of Serous Salivary Gland.
21. Name the Abductors of Vocal Cord.
22. Blastocyst

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Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination - DEC 2016

Time: Three Hours | Max. Marks: 100 Marks

Anatomy – Paper II (RS2 & RS3)

Q.P. CODE: 1076

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

LONG ESSAYS 2 x 10 = 20 Marks

1. Describe Rectus Sheath under following heads: (4+3+3)
   a) Formation
   b) Contents
   c) Applied Anatomy
2. Describe Medial Longitudinal Arch of Foot in detail. Add a note on its applied Anatomy. (7+3)

SHORT ESSAYS 10 x 5 = 50 Marks

3. Trisomy 21
4. Describe the Microscopic structure of Pancreas.
5. Paramesonephric Duct
6. Ischiorectal Fossa
7. Femoral Sheath
8. Thermoregulation of Testis
9. Perineal Body
10. Abductors of Hip Joint
11. Development of Urinary Bladder
12. Lesser Omentum

SHORT ANSWERS 10 x 3 = 30 Marks

13. Trans-pyloric plane
14. Blood supply of Stomach
15. Mendel's Law of Independent Assortment with example
16. Spring Ligament
17. Draw and label microscopic structure of Spleen.
18. Ligaments of Spleen
19. Broad ligament of Uterus
20. Meckel's Diverticulum
21. Define Eversion of Foot. Name Evertors of Foot and give their Nerve supply.
22. Medial Meniscus

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Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination - DEC 2016

Time: Three Hours | Max. Marks: 100 Marks

Anatomy – Paper II (RS2 & RS3)

Q.P. CODE: 1076

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

LONG ESSAYS 2 x 10 = 20 Marks

1. Describe Rectus Sheath under following heads: (4+3+3)
   a) Formation
   b) Contents
   c) Applied Anatomy
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SHORT ESSAYS 10 x 5 = 50 Marks

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SHORT ANSWERS 10 x 3 = 30 Marks

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18. Ligaments of Spleen
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22. Medial Meniscus

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Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination - DEC 2016

Time: Three Hours | Max. Marks: 100 Marks

Physiology – I (RS2 & RS3)

Q.P. CODE: 1077

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

LONG ESSAYS 2 x 10 = 20 Marks

1. Write the name of coagulation factors. Describe the extrinsic pathway with the help of a diagram. Add a note on hemophilia.
2. Describe the nervous regulation of respiration in an adult. Add a note on periodic breathing.

SHORT ESSAYS 10 x 5 = 50 Marks

3. T-lymphocyte
4. Physiologic basis for treatment of peptic ulcer
5. Digestion and absorption of fats
6. Types of jaundice with examples
7. Describe phases of Deglutition
8. Oxy-hemoglobin dissociation curve
9. Describe the properties of cardiac muscle.
10. Regulation of cerebral circulation
11. Triple response
12. Conducting system of the heart

SHORT ANSWERS 10 x 3 = 30 Marks

13. Intrinsic factor
14. PR interval
15. Diuretics
16. Suicidal bags of a cell
17. Intercellular communication
18. Peristalsis
19. Bohr effect
20. Name the methods of artificial respiration
21. Windkessel effect
22. What is the role of augmented limb leads?

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Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination - DEC 2016

Time: Three Hours | Max. Marks: 100 Marks

Physiology – Paper II (RS2 & RS3)

Q.P. CODE: 1078

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

LONG ESSAYS 2 x 10 = 20 Marks

1. Define myoneural junction. Describe the transmission of impulse from the nerve to the muscle with the help of a diagram. Write about the factors affecting transmission at myoneural junction.
2. What are steps in secretion of glucocorticoids? Write about the mechanism of action of glucocorticoids and about their functions. Add a note on Addison's disease.

SHORT ESSAYS 10 x 5 = 50 Marks

3. Functions of hypothalamus
4. Describe the structure and functions of muscle spindle.
5. Regulation of secretion of Thyroid hormones
6. Spermatogenesis
7. Acromegaly
8. Pregnancy tests
9. Sources and actions of Glucagon
10. Dwarfism
11. Indicators of ovulation
12. Stages and features of Spinal shock

SHORT ANSWERS 10 x 3 = 30 Marks

13. Denervation hypersensitivity
14. Kernicterus
15. Actions of Aldosterone
16. Wallerian degeneration
17. Postural hypotension
18. "All or None" law
19. Synaptic delay
20. Bell magendie law
21. Presbycusis
22. Anovulatory cycles

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Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination - DEC 2016

Time: Three Hours | Max. Marks: 50 Marks

Biochemistry – Paper I (RS2 & RS3)

Q.P. CODE: 1079

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary
(Note: Both QP Codes 1079 and 1080 are to be, answered within total duration of three hours)
(Use separate Answer books for QP Code 1079 & 1080)

LONG ESSAYS 1 x 10 = 10 Marks

1. Explain the effect of different factors on the rate of Enzyme Catalyzed reactions.

SHORT ESSAYS 5 x 5 = 25 Marks

2. Define Gluconeogenesis. Explain the key reactions of Gluconeogenesis.
3. What are Essential Fatty Acids? What are the functions of Essential Fatty Acids?
4. Briefly discuss the Transamination reactions with examples.
5. β-oxidation of Palmitic acid
6. Explain the synthesis of Catecholamines.

SHORT ANSWERS 5 x 3 = 15 Marks

7. Explain the relationship between Km and Affinity.
8. What is meant by Denaturation of Proteins? What are the causes of Denaturation of Proteins?
9. Galactosemia
10. Discuss the role of Glutathione.
11. List the site inhibitors of Electron Transport Chain.

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Rajiv Gandhi University of Health Sciences, Karnataka

First Phase MBBS Degree Examination – DEC 2016

Time: Three Hours Max. Marks: 100 Marks

BIOCHEMISTRY (RS2 & RS3)

QP Code: 1080 – Paper II (Max.Marks:50)

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

LONG ESSAYS 1 x 10 = 10 Marks

1. Discuss RDA, Functions and Deficiency manifestations of Folic acid. How is it interlinked to Vitamin B12?

SHORT ESSAYS 5 x 5 = 25 Marks

2. Post translational modifications
3. Biochemical basis of Gout and its features
4. Recombinant DNA technology
5. Iron absorption and transport
6. Causes and general features of Porphyrias

SHORT ANSWERS 5 x 3 = 15 Marks

7. Protein Energy Malnutrition
8. Marker enzymes of liver function test
9. Alkalosis
10. Diagnosis importance of serum protein electrophoresis
11. RNA polymerases

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