Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination - AUG 2017

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 Shoulder Joint under the following headings:
   a) Formation
   b) Ligaments
   c) Movements and muscles causing them
   d) Nerve and blood supply
   e) Applied Anatomy
2. Describe the gross features, relations, blood supply and applied Anatomy of Thyroid gland.

SHORT ESSAYS **10 x 5 = 50 Marks**

3. Broncho Pulmonary segments of Right Lung
4. Sulci and Gyri of supero-lateral surface of Cerebrum
5. Histology of Lymph Node
6. Notochord
7. Typical Intercostal Nerve
8. Corpus Callosum
9. Development of Palate
10. Lymphatic drainage of Mammary gland
11. Nasal Septum
12. Lateral Pterygoid Muscle

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Anastomosis around the knee joint
14. Perichondrium
15. Red Nucleus
16. Name the branches of External Carotid Artery.
17. Ligamentum Denticulatum
18. Prime Movers with examples
19. Anatomical Snuff box
20. Coronary Sinus
21. Mention the Derivatives of Third Branchial Arch.
22. Dorsal Digital Expansion of Hand

Rajiv Gandhi University of Health Sciences, Karnataka

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Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase - I Degree Examination - AUG 2017

Anatomy - Paper I .

Q.P. CODE: 1075

CORRECTION

Replace Question No. 13 as

Atypical features of 1st Rib

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Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination - AUG-2917

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 Anal Canal under following headings: (3+3+4)
   a) Gross Anatomy
   b) Development
   c) Applied Anatomy
2. Describe Hip Joint under the following headings: (2+3+2+3)
   a) Formation and Ligaments
   b) Movements and Muscles producing the movements
   c) Neurovascular supply
   d) Applied Anatomy

SHORT ESSAYS **10 x 5 = 50 Marks**

3. Recto Uterine Pouch of Douglas
4. Describe the Microscopic structure of Kidney.
5. Development of Pancreas
6. Klinefelter's syndrome
7. Superficial Perineal Pouch
8. Boundaries and Defensive mechanism of Inguinal Canal
9. Femoral Nerve
10. Cruciate Ligaments of Knee Joint
11. Cloaca
12. Biceps Femoris Muscle

SHORT ANSWERS **10 x 3 = 30 Marks**

13. The Mesentery – attachments and contents
14. Draw and label microscopic structure of Fallopian Tube.
15. Femoral Canal
16. Endometrium
17. Locking and unlocking of Knee Joint
18. Development of Extra Hepatic Biliary System
19. Mendel's Law of Independent Assortment with example
20. Thermoregulation of Testis
21. Vitellointestinal Duct
22. Prostatic Urethra

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Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination - AUG-2017

Anatomy – Paper II
Q.P. CODE: 1076
Corrections

Replace Question No. 20 as

"contents of spermatic cord"

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Rajiv Gandhi University of Health Sciences, Karnataka

First Phase MBBS Degree Examination – AUG-2017

Time: Three Hours **Max. Marks: 100 Marks**

PHSIOLOGY-PAPER I
(RS2 & RS3 SCHEME)
QP 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. Name the important plasma proteins & explain their functions.
2. Draw a labeled diagram of the conducting system of heart. Explain its importance

SHORT ESSAYS **10 x 5 = 50 Marks**

3. Intercellular connections
4. Timed vital capacity and its clinical significance
5. Explain the pharyngeal phase of deglutition
6. Classify Hypoxia. Explain any two of them
7. Four functions of stomach
8. Jugular Venous Pulse (J.V.P)
9. Chloride shift
10. Saliva
11. Peculiarities of cerebral circulation
12. Acidification of urine

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Explain exocytosis and endocytosis with an example for each
14. Resting membrane potential
15. Central cyanosis
16. Cystometrogram
17. List the factors influencing glomerular filtration rate
18. Enumerate any two functions of juxtra glomerular apparatus
19. Explain facilitated diffusion with an example
20. Functions of T-Lymphocyte
21. Functions of thrombocytes
22. P – R interval in ECG

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Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination - AUG-2017

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. Describe any four functions of hypothalamus. Add a note on anorexia nervosa and hypothalamic obesity.
2. Describe the endometrial changes during a normal menstrual cycle. Explain the role of different hormone in each phase. Add a note on tests for ovulation.

SHORT ESSAYS **10 x 5 = 50 Marks**

3. Accommodation reflex
4. Aqueous humor
5. Dark adaptation
6. Complete transection of the spinal cord
7. Differences between UMN and LMN lesions
8. Functions of Oxytocin
9. Functions of cortisol
10. Functions of growth hormone
11. Neuromuscular blocking agents
12. Isotonic and isometric contraction in skeletal muscle

SHORT ANSWERS **10 x 3 = 30 Marks**

13. List the hormones of placenta.
14. What is a Motor unit?
15. Mechanisms of heat loss
16. Define chronaxie and rheobase.
17. What is Endocochlear potentials?
18. List the Thyroid function tests.
19. What is Inverse-stretch reflex?
20. List the functions of Aldosterone.
21. List the Endocrine functions of testis.
22. What is Addison's disease?

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Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination - AUG - 2017

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. Describe the metabolism of Phenyl Alanine. Add a note on its inborn errors.

SHORT ESSAYS **5 x 5 = 25 Marks**

2. Glycogen storage disorders
3. Define Isoenzymes. Describe its biomedical importance citing any three examples.
4. Describe the Decarboxylation reactions of Amino acids with four examples. Give its significance.
5. Define Detoxification. Give any four reactions of Phase II Detoxification.
6. What is HMP Shunt? Give its significance.

SHORT ANSWERS **5 x 3 = 15 Marks**

7. Pellagra
8. Ketosis
9. Components of Electron Transport Chain
10. Hartnup's disease
11. Lipoproteins

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Rajiv Gandhi University of Health Sciences, Karnataka

First Phase MBBS Degree Examination – AUG - 2017

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 the process of protein biosynthesis. Name three inhibitors of protein biosynthesis.

SHORT ESSAYS **5 x 5 = 25 Marks**

2. Describe heme synthesis and add a note on its regulation.
3. Describe recombinant DNA-technology. Mention its applications.
4. Define biological value of protein. What do you mean by complementary proteins? Give examples. What is the requirement of protein in diet?
5. Define codon. What are the salient features of a genetic code?
6. List any **three** trace elements with their biological function.

SHORT ANSWERS **5 x 3 = 15 Marks**

7. Mutagens.
8. Okazaki fragments.
9. Provitamins.
10. Cell cycle.
11. Tests to assess renal tubular function

Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination – OCT-2017

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 Extraocular Muscles and discuss the movements of Eye Ball.
2. Describe the Blood supply of Heart with development of Interatrial Septum.

SHORT ESSAYS **10 x 5 = 50 Marks**

3. Carotid Sheath
4. Microscopic structure of Trachea
5. Superior Colliculus
6. Third Ventricle
7. Lymphatic drainage of Breast
8. Superior Mediastinum
9. Implantation
10. Pectoralis Minor
11. Otic ganglion
12. Rhomboideus Major Muscle

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Frontal Sinus
14. Chordae Tendinae
15. Radial Nerve in Spiral Groove
16. Cephalic Vein
17. Sclerotome
18. Lung root
19. Nasion
20. Facial Vein
21. Spiral Septum
22. Draw a neat labeled diagram of Histology of Thymus.

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Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination – OCT-2017

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 boundaries and contents of Inguinal Canal. Add a note on its clinical importance. (3+3+4)
2. Enumerate structures under cover of Gluteus Maximus. Describe in detail Sciatic Nerve and its applied Anatomy. (4+3+3)

SHORT ESSAYS **10 x 5 = 50 Marks**

3. Adductor Canal
4. Portocaval Anastomosis
5. Perineal Membrane
6. Describe the Microscopic structure of Liver.
7. Development of Kidney
8. Supports of Uterus
9. Karyotyping
10. Lesser Sac
11. Dorsalis Pedis Artery
12. Development of Pancreas

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Chromosome
14. Positions of Appendix
15. Trigone of Urinary Bladder
16. Contents of Superficial Perineal Pouch
17. Femoral Canal
18. Cruciate Ligaments
19. Boundaries and contents of Popliteal Fossa
20. Draw and label microscopic structure of Testis.
21. Derivatives of Foregut
22. Development of Spleen

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Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination - OCT-2017

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. Describe in detail the digestion and absorption of fats. Add a note on Steatorrhea.
2. Describe the leads of ECG, various waves, intervals and segments of a normal ECG

SHORT ESSAYS **10 x 5 = 50 Marks**

3. Factors affecting Venous return
4. Functions of Gastric juice secretion
5. Mismatched Blood transfusion reactions
6. Functions of Reticulo – endothelial system
7. Functions of T-lymphocytes
8. Counter current multiplier system in kidney
9. Cystometrogram
10. Lung compliance
11. Locations and functions of centres of respiration
12. Explain dyspnoea and apnoea with examples.

SHORT ANSWERS **10 x 3 = 30 Marks**

13. What is the physiological basis of Autorhythmicity?
14. Define Frank-Starling's law.
15. What is the normal platelet count? Give two functions of platelets.
16. List the functions of Neutrophils
17. What are Chylomicrons? What are their functions?
18. Secondary active transport
19. Name the buffers of renal tubules.
20. Sinus arrhythmia
21. List three functions of saliva.
22. What is Ventilation : Perfusion ratio (VA/Q)? Give its normal value.

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Rajiv Gandhi University of Health Sciences, Karnataka

First Phase MBBS Degree Examination – OCT-2017

Time: Three Hours **Max. Marks: 100 Marks**

PHSIOLOGY-PAPER II
(RS2 & RS3 SCHEME)
QP 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. Classify receptors. Explain their properties.
2. Describe the physiological actions & regulation of secretion of aldosterone.

SHORT ESSAYS **10 x 5 = 50 Marks**

3. Functions of semicircular canals.
4. Describe the effects of cerebellar lesion.
5. Explain the effect of lesion of a) dorsal nerve root, b).upper motor neuron on muscle tone
6. Give the source, target organs and actions of 'Follicle Stimulating Hormone'
7. Functions of middle ear
8. How the speech of a person is affected with a lesion in 'Wernicke's area'
9. Explain the electrical changes and ionic basis of different phases of a nerve action potential.
10. Regulation of thyroid hormones
11. Importance of maintaining normal intraocular pressure.
12. Explain the regulation of secretion of Anti diuretic hormone

SHORT ANSWERS **10 x 3 = 30 Marks**

13. Explain the image formation & the method of its correction in hypermetropia with the help of a diagram.
14. Enumerate the factors affecting spermatogenesis.
15. Indicators of ovulation
16. Name the primary taste sensations. Explain the mechanism of perception of any one taste sensation.
17. Functions of Sertoli cells
18. Electromyogram (EMG)
19. Eccrine sweat glands.
20. Differences between skeletal muscle and smooth muscle
21. Dwarfism
22. Motor homunculus

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Rajiv Gandhi University of Health Sciences, Karnataka

First Phase MBBS Degree Examination – OCT-2017

Time: Three Hours **Max. Marks: 100 Marks**

BIOCHEMISTRY (RS2 & RS3)

QP Code: 1079 – Paper I (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. Describe the reactions of glycolysis indicating the enzymes. Add a note on net yield of ATP under aerobic and anaerobic conditions.

SHORT ESSAYS **5 x 5 = 25 Marks**

2. Describe the fate and formation of glycine. List **four** compounds formed from glycine.
3. What are isoenzymes? Explain the clinical significance giving **two** examples.
4. What are nitrogen-producing substances in the body? Explain how they are excreted from the body.
5. Describe the fluid mosaic model of membrane structure.
6. Name the ring structure present in cholesterol. Write the key regulatory step in the synthesis of cholesterol. Name **four** compounds derived from cholesterol.

SHORT ANSWERS **5 x 3 = 15 Marks**

7. Detoxification.
8. Chemiosmotic hypothesis.
9. Von Gierkes disease.
10. Multi enzyme complex.
11. Rappaport-Leubring cycle.

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Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination - OCT-2017

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. What are the sources, functions, deficiency manifestations and daily-recommended allowance of Thiamine?

SHORT ESSAYS **5 x 5 = 25 Marks**

2. Define Point Mutation. Explain the effects of Point Mutation.
3. Briefly explain the Lac Operon concept.
4. Discuss the features of Genetic Code.
5. Discuss the regulation of Water by Rennin-Angiotensin system.
6. What is Wilson's disease? State the cause and the treatment policy.

SHORT ANSWERS **5 x 3 = 15 Marks**

7. Hypoalbuminemia
8. What are DNA probes? Mention the types of DNA probes.
9. Describe how Plasma Proteins are separated in the Clinical laboratory.
10. Discuss the nutritional role of Milk and Dairy products.
11. Discuss the role of Carbonic Anhydrase in the Acid Base regulation.

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