Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination - JUNE-2019

Time: Three Hours | Max. Marks: 100 Marks

Anatomy – Paper I (RS2 & RS3)

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 boundaries and contents of posterior triangle of neck.
2. Describe Temporo Mandibular Joint under following headings:
   a) Formation
   b) Ligaments
   c) Relations
   d) Movements and muscles causing it
   e) Applied Anatomy

SHORT ESSAYS — 10 x 5 = 50 Marks

3. Thenar space
4. Development of Tongue
5. Insula
6. Clavipectoral Fascia
7. Major and minor openings of Diaphragm
8. Microscopy of Hyaline Cartilage
9. Spermatogenesis
10. Inferior Horn of lateral Ventricle
11. Nuclei of Cerebellum
12. Lymphatic drainage of Mammary gland

SHORT ANSWERS — 10 x 3 = 30 Marks

13. Contents of Carpal Tunnel
14. Sesamoid Bones
15. Supra-Sternal space
16. Osteon
17. Derivatives of Second Branchial Arch
18. Sarcomere
19. Draw a neat labeled diagram of Microscopic structure of Thymus.
20. Pulmonary Ligament
21. Results of Fertilization
22. Styloid apparatus

Rajiv Gandhi University of Health Sciences, Karnataka

First Phase MBBS Degree Examination – JUNE-2019

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 position, supports, blood supply and development of uterus.
2. Describe the hip joint under following heads: (1+2+3+4)

   a) Type b) Capsule and ligaments c) Relations and d) Movements and muscles acting.

SHORT ESSAYS 10 x 5 = 50 Marks

3. Microscopic anatomy of fundus of stomach
4. Interior of anal canal
5. Ligaments of liver
6. Superior mesenteric artery – origin and branches of distribution
7. Inguinal ligament
8. Development of pancreas
9. Gluteus maximus
10. Profunda femoris artery – origin, course and branches
11. Turner's syndrome
12. Second part of duodenum – relations and blood supply

SHORT ANSWERS 10 x 3 = 30 Marks

13. Saphenous nerve – origin, course and distribution
14. Cutaneous nerve supply of dorsum of foot
15. Saphenous opening
16. Leino renal ligament
17. Transverse colon
18. Positions of appendix
19. Microscopic structure of cortex of kidney
20. Differences between jejunum and ileum – gross and microscopic
21. Root of mesentery – attachments and contents
22. Sites of constrictions of ureter

*****

Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination - JUNE-2019

Time: Three Hours | Max. Marks: 100 Marks

Physiology – Paper 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. Define Cardiac output. Describe the various factors regulating cardiac output.
2. Describe the role of counter current mechanism in kidney function.

SHORT ESSAYS 10 x 5 = 50 Marks

3. Micturition reflex
4. Functions of plasma proteins
5. Surfactant
6. Movements of small proteins
   OR
   Movements of small **Intestine**
7. Regulation of GFR
8. Deglutition
9. Sodium – potassium pump
10. Juxta medullary nephron
11. Rh factor and its importance
12. Periodic breathing

SHORT ANSWERS 10 x 3 = 30 Marks

13. Ventilation – perfusion ratio
14. Tubular maximum for Glucose (Tm G)
15. Anticoagulants
16. P-R interval
17. Functions of Gastrin
18. Heart sounds
19. Dietary fiber
20. Facilitated diffusion
21. Morphological classification of anemias
22. Gap junctions

Rajiv Gandhi University of Health Sciences, Karnataka

First Phase MBBS Degree Examination – JUNE-2019

Time: Three Hours | Max. Marks: 100 Marks

Physiology-paper II (RS2 & RS3)

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. Draw a neat labeled diagram of 'slow pain' pathway from right lower limb. Explain 'descending analgesia system'
2. Describe the physiological actions & regulation of secretion of cortisol.

SHORT ESSAYS 10 x 5 = 50 Marks

3. Give the principal connections & functions of Basal Ganglia.
4. Explain the role of 'cochlea' in 'pitch discrimination'.
5. List the features of 'Brown Sequard syndrome'
6. Give the source, target organs and actions of 'calcitonin'
7. Draw the pathway for 'direct light reflex'
8. List the functions of thalamus.
9. Enumerate the hormones of posterior pituitary and explain the actions of ANY one
10. With examples explain 'positive feedback' control of hormones.
11. Neural pathway & the physiological role of taste sensation.
12. Explain the mechanism of neuromuscular transmission. Add a note on neuromuscular blockers.

SHORT ANSWERS 10 x 3 = 30 Marks

13. Mention the part of retina with highest visual acuity and give reasons for the same.
14. Indicators of ovulation
15. List the functions of placenta.
16. Impedance matching by the middle ear.
17. Prolactin
18. Superfemale
19. Physiological mechanisms of heat gain
20. Explain the physiological basis of any ONE test to investigate the cause of infertility in a female
21. Rigor mortis
22. Oligodendrocytes

*****

Rajiv Gandhi University of Health Sciences, Karnataka

SHORT ANSWERS 10 x 2 = 20 Marks

13. Parapsychology
14. Paraesthesia
15. Stress
16. Sublimation
17. Ambivert
18. Types of genes
19. Concept of IQ and its formula
20. Conditioned esponse
21.
22. Types of distraction

Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination - JULY-2019

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 phenylalanine and tyrosine and inborn errors associated with it.

SHORT ESSAYS 5 x 5 = 25 Marks

2. Describe the steps of beta oxidation of fatty acids from palmitic acid to acetyl CoA.
3. Classify carbohydrates with two examples for each class and subclass.
4. Draw a labeled structure of cell with two organelles. Describe the functions of four organelles.
5. Fatty liver
6. Temperature and pH as factors affecting velocity of enzyme catalysed reactions, with examples

SHORT ANSWERS 5 x 3 = 15 Marks

7. Fasting and glucose tolerance test criteria for diagnosis of diabetes mellitus
8. Specialized products formed from glycine
9. Anapleurotic reactions of citric acid cycle for three intermediates
10. Site specific inhibitors of electron transport chain with one example for each site
11. Phase two reactions of detoxification

*****

Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination - JULY-2019

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. Write in detail the process of translation in Eukaryotes. Add a note on post translational modifications and its inhibitors.

SHORT ESSAYS — 5 x 5 = 25 Marks

2. Coenzymes of Cobalamin and its functions
3. Polymerase chain reaction
4. BMR
5. Porphyrias
6. Metabolic acidosis

SHORT ANSWERS — 5 x 3 = 15 Marks

7. Different types of RNA with their function
8. Scurvy
9. Reference values
10. Oncogenes
11. Gout.

*****

Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase - I Degree Examination – OCT-2019

Time: Three Hours | Max. Marks: 100 Marks

Anatomy – Paper I (RS2 & RS3)

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 parotid gland under following headings: relations, structures passing within it and applied anatomy.
2. Describe the blood supply of heart and give its applied aspect.

SHORT ESSAYS 10 x 5 = 50 Marks

3. Microscopic anatomy of pituitary gland
4. Nasal septum
5. Pectoralis major
6. Fertilization
7. Fourth ventricle
8. Development of tongue with nerve supply
9. Thoracic duct
10. Caudate nucleus
11. Erb's point
12. Bronchopulmonary segments

SHORT ANSWERS 10 x 3 = 30 Marks

13. First branchial arch derivatives
14. Median nerve in Carpal tunnel
15. Tonsillar bed
16. Movements of shoulder joint
17. Paracentral lobule
18. Dangerous area of face
19. Median cubital vein
20. Draw a neat labeled diagram of microscopic structure of cornea
21. Sternal angle
22. Costodiaphragmatic recess of pleura

*****

Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination – OCT-2019

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. Boundaries, contents and clinical aspects of Femoral Triangle
2. Describe the external and internal features, relations, development and congenital anomalies of urinary bladder. (4+2+4=10)

SHORT ESSAYS — 10 x 5 = 50 Marks

3. Parts and blood supply of stomach
4. Microscopic structure of pancreas
5. Pelvic diaphragm
6. Prostate
7. Anterior relations of kidneys
8. Chromosomes
9. Adductor magnus
10. Development and congenital anomalies of uterus
11. Deep perineal pouch
12. Caecum

SHORT ANSWERS — 10 x 3 = 30 Marks

13. Microscopic structure of vermiform Appendix
14. Blood supply of suprarenal glands
15. Coverings of testis
16. Turner's syndrome
17. Epiploic foramen
18. Contents of rectus sheath
19. Development of spleen
20. Inguinal lymph nodes
21. Lyon's hypothesis
22. Perineal muscles

*****

Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination - OCT-2019

Time: Three Hours | Max. Marks: 100 Marks

Physiology – Paper 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 oxygen transport in detail. Add a note on acclimatization.
2. Describe in detail how urine is concentrated in the kidney. Add a note on renal function tests.

SHORT ESSAYS 10 x 5 = 50 Marks

3. Draw a schematic diagram to show the intrinsic pathway of blood clotting. Add a note on bleeding time.
4. Frank-Starling's law of heart
5. Anticoagulants and their mode of action
6. Digestion and absorption of Proteins
7. Chylomicron
8. Defecation reflex
9. Draw and explain a Spirogram
10. Refractory period in Heart muscle
11. What is the normal P-R interval? What is its significance?
12. Describe the functions of platelets.

SHORT ANSWERS 10 x 3 = 30 Marks

13. Phagocytosis
14. Autorhythmicity
15. Mismatched blood transfusion
16. Dead space
17. Tubuloglomerular feedback
18. Composition and functions of bile
19. All or none law in Heart
20. Apoptosis
21. Juxtaglomerular apparatus
22. Gastric phase of gastric juice secretion

*****

Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase - I Degree Examination – OCT-2019

Time: Three Hours | Max. Marks: 100 Marks

Physiology - PAPER II (RS2 & RS3)

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. Describe the connections and functions of Basal Ganglia. Add a note on Parkinson's disease.
2. Describe the mechanisms of hormonal action. Add a note on Feedback regulation of hormone secretion.

SHORT ESSAYS 10 x 5 = 50 Marks

3. Radio immunoassay
4. Scotopic vision
5. Milk ejection reflex
6. Blood-testis barrier
7. Wallerian degeneration
8. Second messenger
9. Difference between UMN and LMN lesions
10. Olfactory pathway
11. Papez circuit
12. Weber Fechner Law

SHORT ANSWERS 10 x 3 = 30 Marks

13. Waves of EEG
14. Circadian rhythm
15. Adaptation of sensory receptors
16. Stereognosis
17. Babinski's sign
18. Functions of sertoli cells
19. Sarcomere
20. Visual acuity
21. Motor unit
22. Attenuation reflex

*****

Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase – I Degree Examination - OCT-2019

Time: Three Hours Max. Marks: 50 Marks

Biochemistry – Paper I (RS2 & RS3)

QP 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. What is Gluconeogenesis? Write the steps involved in formation of Glucose from Alanine? Add a note on its regulation.

SHORT ESSAYS 5 x 5 = 25 Marks

2. Monosaccharides
3. Products from Arachidonic acid and their function
4. Conjugation in detoxification
5. Chemiosmotic theory of ATP formation
6. Digestion and absorption of lipids

SHORT ANSWERS 5 x 3 = 15 Marks

7. Functions and markers for Lysosomes
8. Isoelectric pH
9. What are Coenzymes? Mention 3 with their functions.
10. Hyperglycemic hormones and their mode of action
11. Sphingolipids

*****

Rajiv Gandhi University of Health Sciences, Karnataka

First Phase MBBS Degree Examination – OCT-2019

Time: Three Hours | Max. Marks: 100 Marks

BIOCHEMISTRY (RS2 & RS3)
QP Code: 1080 – Paper II

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 steps of initiation, elongation and termination of transcription. Add a note on post transcriptional modification of RNA.

SHORT ESSAYS 5 x 5 = 25 Marks

2. What is the primary defect in metabolic acidosis? List the causes of metabolic acidosis.
3. Name the different types of hemoglobin variants indicating their defects.
4. Name the protein energy malnutrition disorders. Write important differences between them.
5. Classify liver function tests. Describe the tests based on excretory functions.
6. How are purine nucleotide degraded? Mention the causes of hyperuricemia.

SHORT ANSWERS 5 x 3 = 15 Marks

7. List the differences between RNA and DNA.
8. Mention the causes of orotic aciduria.
9. Explain the features of genetic code.
10. How is iron absorbed and transported. Add a note on hemochromatosis.
11. Write the causes and biochemical explanations for deficiency manifestations of vitamin B12.

*****