

Rajiv Gandhi University of Health Sciences, Karnataka

M.B.B.S. PHASE - I Degree Examination - February 2007

Time : 3 Hrs.

[Max. Marks : 100]

ANATOMY - Paper I (Revised Scheme II)

QP Code: 1075

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 thyroid gland under the following headings:
a) Capsule b) Relations c) Blood supply d) Development
2. Describe the brachial plexus under the following headings:
a) Formation b) Parts c) Branches d) Applied anatomy

SHORT ESSAY**10 X 5 = 50 Marks**

3. Muscular artery-microscopic anatomy
4. Amnion
5. First rib
6. Root of right lung-relations and structures forming it
7. Mammary gland-lymphatic drainage and applied anatomy
8. Inferior cerebellar peduncle and its components
9. Orbicularis oculi-part, attachments, nerve supply and actions
10. Anastomosis around elbow joint
11. Right coronary artery
12. Tongue-nerve supply

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

13. Name any 3 foramina in the middle cranial fossa
14. Name any 3 anatomical events at sternal angle
15. Name any three air sinuses opening in the middle meatus of the nose
16. Name any three muscles get affected in oculomotor palsy
17. What are the fascial spaces of hand?
18. What is wrist drop?
19. What are the features of fibrocartilage?
20. Falx cerebri
21. Typical inter costal nerve
22. Coacoacromial arch - attachments and functions

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Rajiv Gandhi University of Health Sciences

M.B.B.S. PHASE - I Degree Examination - February 2007

Time: 3 Hrs.

[Max. Marks: 100]

ANATOMY - Paper II (Revised Scheme II)

QP Code: 1076

Your answers should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary.

LONG ESSAY

2 X 10 = 20 Marks

1. Describe ischiorectal fossa under the following headings
a) Boundaries b) Contents c) Applied anatomy.
2. Describe the pancreas under the following headings
a) Parts b) Arterial supply c) Microscopic anatomy.

SHORT ESSAY

10 X 5 = 50 Marks

3. Caecum
4. Femoral sheath
5. Epiploic foramen
6. Notochord
7. Adductor magnus muscle
8. Lobes of prostate
9. Turner's syndrome
10. Inversion & Eversion of foot
11. Hepato renal pouch
12. Microscopic structure of supra renal gland

SHORT ANSWERS

10 X 3 = 30 Marks

13. Any four derivatives of para mesonephoric duct
14. Dorsalis pedis artery
15. Structures passing through the aortic opening of diaphragm
16. Name any three branches of femoral nerve
17. Sex chromosomes
18. Name the coverings of testis
19. Ligaments of spleen
20. Name the glutei muscle and their nerve supply
21. Position and parts of uterus
22. Name bones forming medial longitudinal arch of foot

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Rajiv Gandhi University of Health Sciences

M.B.B.S. PHASE - I Degree Examination - February 2007

Time : 3 Hrs.

[Max. Marks: 100]

PHYSIOLOGY - Paper I (Revised Scheme II)

QP Code : 1077

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 mechanism of formation of urine.
2. Discuss the regulation of cardiac output.

SHORT ESSAY

10 X 5 = 50 Marks

3. Explain rennin-angiotensin mechanism
4. Explain the dynamics of capillary fluid exchange. How is it affected in hypoproteinemia?
5. Explain the factors affecting the affinity of oxygen to hemoglobin
6. Classify 'Hypoxia'. Give example for each type. Mention distinguishing features of each type of hypoxia
7. Explain respiratory distress syndrome. Add a note on 'pulmonary surfactant'
8. Explain why vitamin B12 deficiency causes anemia. Give the blood picture in this condition.
9. Complications of mismatched blood transfusion
10. Deglutition reflex
11. Gastric phase of gastric secretion
12. Functions of large intestine

SHORT ANSWERS

10 X 3 = 30 Marks

13. Name the arterial baroreceptors. How are they stimulated? Mention two effects of stimulation of baroreceptors
14. Explain the triple response
15. Explain Herring-Brewer inflation reflex
16. Explain the morphology and functions of monocytes
17. What is prothrombin time? Explain its usefulness as a haemostatic test
18. Give the value of normal blood volume in adults. Explain the principle of measurement of blood volume
19. What is the normal plasma osmolarity?
20. Explain the genesis of peristalsis in small intestine
21. Mention the source, stimulus for release and actions of secretin
22. Draw diagram to show nerve supply to urinary bladder and its sphincters

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Rajiv Gandhi University of Health Sciences

M.B.B.S. PHASE - I Degree Examination - February 2007

Time : 3 Hrs.

[Max. Marks : 100]

PHYSIOLOGY - Paper II (Revised Scheme II)

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 steps in the biosynthesis and release of thyroid hormones and indicate the clinical application of this knowledge.
2. Describe the immediate effects of complete transection of the spinal cord at midthoracic level and explain the basis of these effects.

SHORT ESSAY

10 X 5 = 50 Marks

3. List four factors that inhibit growth hormone secretion. Name other hormones regulating growth.
4. Explain the basis of two features that are seen in hyperfunctioning of the adrenal cortex.
5. Explain the basis of:
a) intensity discrimination b) localization of stimulus.
6. In a tabular column compare the features of upper motor neuron lesion and lower motor neuron lesion.
7. Draw diagrams to show image formation in the hypermetropic and myopic eye. Explain the basis of correction.
8. Explain 'Dark adaptation'.
9. Draw a diagram to show the pathway for light reflexes.
10. Explain 'impedance matching' and give its significance.
11. Explain the genesis of resting membrane potentials.
12. Explain the length tension relationship in skeletal muscle.

SHORT ANSWERS

10 X 3 = 30 Marks

13. List six secondary sexual characteristics in males.
14. List the actions of oestrogens on the mammary gland.
15. List the factors regulating spermatogenesis.
16. Name the mechanism by which oral contraceptives prevent pregnancy.
17. Give the locations and role of thermoreceptors.
18. Compare the role of troponin and calmodulin.
19. Explain the mechanism of action of local anaesthetics.
20. Explain the role of synaptic inhibition.
21. Draw a diagram to show the structure of the muscle spindle.
22. Explain the basis of 'mass reflex'.

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Rajiv Gandhi University of Health Sciences^{BIOCHEM}

M.B.B.S. PHASE - I Degree Examination - February 2007

Time: 3 Hours

[Max. Marks: 100]

BIOCHEMISTRY (Revised Scheme II)

QP Code : 1079 – Paper I (Max. Marks: 50)

Your answer shall be specific to question asked. Draw neat and labelled diagrams wherever necessary. **Use separate answer books for section A and section B.**

LONG ESSAY

1 X 10 = 10 Marks

1. Explain the influence of various factors on enzyme activity.

SHORT ESSAY

5 X 5 = 25 Marks

2. Urea formation in liver
3. Glycogen storage diseases
4. Name any five products formed from glycine
5. Fatty liver and lipotropic factors
6. Purine salvage pathways

SHORT ANSWERS

5 X 3 = 15 Marks

7. Mechanism of oxidative phosphorylation
8. Functions of prostaglandins
9. Oncogenes
10. Mutarotation
11. Antioxidants

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

Use separate answer book

LONG ESSAY

1 X 10 = 10 Marks

1. Write in detail about the distribution of calcium in the body, its functions and regulation of serum levels

SHORT ESSAY

5 X 5 = 25 Marks

2. Chemistry, sources and daily requirements of folic acid
3. Renal mechanisms in acid base balance
4. Transcription
5. Genetic code
6. Catabolism of purines

SHORT ANSWERS

5 X 3 = 15 Marks

7. Clearance tests
8. Functions of albumin
9. Catabolism of heme
10. Trace elements
11. Mention the normal levels of serum proteins, urea and creatinine

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