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1075_2007_1_S03

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.

ONG 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

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

- Muscular artery-microscopic anatomy
- Amnion
- First rib
- Root of right lung-relations and structures forming it
- Mammary gland-lymphatic drainage and applied anatomy
- Inferior cerebellar peduncle and its components
- Orbicularis occuli-part, attachments, nerve supply and actions
- Anastomosis around elbow joint
- Right coronary artery
- Tongue-nerve supply

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

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

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1076_2007_1

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 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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1077_2007_1_S13

Rajiv Gandhi University of Health Sciences

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

: 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.

G ESSAY **2 X 10 = 20 Marks**

Marks Describe the mechanism of formation of urine.

Applied Discuss the regulation of cardiac output.

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

Explain rennin-angiotensin mechanism

Marks Explain the dynamics of capillary fluid exchange. How is it affected in hypoproteinemia?

Explain the factors affecting the affinity of oxygen to hemoglobin

Classify 'Hypoxia'. Give example for each type. Mention distinguishing features of each type of hypoxia

Explain respiratory distress syndrome. Add a note on 'pulmonary surfactant'

Explain why vitamin B12 deficiency causes anemia. Give the blood picture in this condition.

Complications of mismatched blood transfusion

Deglutition reflex

Gastric phase of gastric secretion

Functions of large intestine

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

Name the arterial baroreceptors. How are they stimulated? Mention **two** effects of stimulation of baroreceptors

Explain the triple response

Explain Herring-Brewer inflation reflex

Explain the morphology and functions of monocytes

What is prothrombin time? Explain its usefulness as a haemostatic test

Give the value of normal blood volume in adults. Explain the principle of measurement of blood volume

What is the normal plasma osmolarity?

Explain the genesis of peristalsis in small intestine

Mention the source, stimulus for release and actions of secretin

Draw diagram to show nerve supply to urinary bladder and its sphincters

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1078_2007_1_S02

Rajiv Gandhi University of Health Sciences

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

me : 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.

ONG ESSAY **2 X 10 = 20 Marks**

. Describe the steps in the biosynthesis and release of thyroid hormones and indicate the clinical application of this knowledge.

. Describe the immediate effects of complete transection of the spinal cord at midthoracic level and explain the basis of these effects.

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

. List four factors that inhibit growth hormone secretion. Name other hormones regulating growth.

. Explain the basis of two features that are seen in hyperfunctioning of the adrenal cortex.

. Explain the basis of:
   a) intensity discrimination
   b) localization of stimulus.

. In a tabular column compare the features of upper motor neuron lesion and lower motor neuron lesion.

. Draw diagrams to show image formation in the hypermetropic and myopic eye. Explain the basis of correction.

. Explain 'Dark adaptation'.

. Draw a diagram to show the pathway for light reflexes.

). Explain 'impendence matching' and give its significance.

.. Explain the genesis of resting membrane potentials.

:. Explain the length tension relationship in skeletal muscle.

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

:. List six secondary sexual characteristics in males.

·. List the actions of oestrogens on the mammary gland.

:. List the factors regulating spermatogenesis.

). Name the mechanism by which oral contraceptives prevent pregnancy.

'. Give the locations and role of thermoreceptors.

:. Compare the role of troponin and calmodulin.

). Explain the mechanism of action of local anaesthetics.

). Explain the role of synaptic inhibition.

. Draw a diagram to show the structure of the muscle spindle.

. Explain the basis of 'mass reflex'.

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1079_2007_1_S13

Rajiv Gandhi University of Health Sciences

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

Time: 3 Hours [Max. Marks: 100]

BIOCHEMSITRY (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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1075_2007_2_S12

Rajiv Gandhi University of Health Sciences, Karnataka

M.B.B.S. PHASE - I Degree Examination - August 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 axillary artery under the following headings:
   a) Beginning and termination b) Relations c) Branches d) applied anatomy
2. Describe the course branches and distribution of typical intercostal nerve.

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

3. Cavernous sinus.
4. Cerebellar peduncles.
5. Circle of Willis.
6. Pleural recesses.
7. Thoracic duct.
8. Clavipectoral fascia.
9. Scapular movements.
10. Boundaries and contents of cubital fossa.
11. Histology of thyroid gland
12. Hyoid bone.

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

13. Contents of carotid sheath.
14. Development of tongue.
15. Movements of protraction and retraction of mandible.
16. Enumerate the structures related to the first rib
17. Microsocopic structure of lymph node.
18. Spermatogenesis.
19. Epiphysis.
20. Primitive streak.
21. Nerve to Stapedius.
22. Blood supply to isthmus of thyroid

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1076_2007_2_S01

Rajiv Gandhi University of Health Sciences, Karnataka

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M.B.B.S. PHASE - I Degree Examination - August 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.

2 X 10 = 20 Marks

)NG ESSAY

. Describe the stomach under the following headings:
   a) Peritoneal folds b) Relations c) Blood supply d) Lymphatic drainage

. Describe the femoral artery under the following headings:
   a) Origin b) Course and relations c) Branches of distribution d) Nastomoses

10 X 5 = 50 Marks

HORT ESSAY

4. Portal – systemic anastomoses
5. Interior of anal canal
6. Microscopic structure of duodenum
7. Development of spleen
8. Deltoid ligament of ankle joint
9. Sex chromatin
10. Relations of right kidney
11. Write a picture of the trigone of the urinary bladder and add a note on its development
12. Mesentery
13. Microscopic structure of uterus

10 X 3 = 30 Marks

SHORT ANSWERS

13. Trisomy
14. Name the bones forming medial longitudinal arch
15. Normal positions of appendix
16. Mutation
17. Transpyloric plane
18. Bare area of liver
19. Annular pancreas
20. Name any three branches of internal pudendal nerve
21. Name the muscles attached to the greater trochanter
22. Name the muscles forming urogenital diaphragm

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1077_2007_2_S32

Rajiv Gandhi University of Health Sciences, Karnataka

M.B.B.S. Phase I Degree Examination - August 2007

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

PHYSIOLOGY - PAPER I
(Revised Scheme 2)

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. Draw the scheme of coagulation cascade and explain the salient features of this system. Add a note on commonly occurring bleeding disorders
2. Explain the cardiovascular adjustments following
   a) moderate exercise
   b) Haemorrhage

   Add a note on 'Irreversible shock'

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

3. Describe conducting system of the heart
4. Regulation of cerebral circulation
5. Functions of upper respiratory passage
6. Factors affecting gaseous diffusion in lungs
7. Oxygen-dissociation curve
8. Functions of stomach
9. Proteolytic enzymes of pancreas
10. Functions of bile
11. Sodium reabsorption in renal tubules
12. Determination of glomerular filtration rate (GFR)

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

13. What is 'Vagal tone'? What determines it?
14. What is 'Angina Pectoris'? Explain the basis of it with a diagram of neuronal circuit
15. Give the volume of carbondioxide transported in arterial and venous blood. What is the significance of arterial PCO_2?
16. Name the Agglutinogens and agglutinins present in blood in a person of O +ve group. What is "Bombay Blood Group"?
17. Explain the steps in 'Phagocytosis'
18. Give the source and actions of "Erythropoietin". How is its secretion regulated?
19. Write briefly on 'Erythrocyte Sedimentation Rate'
20. List the stimulants of gastrin secretion.
21. Draw a graph to illustrate pressure changes within urinary bladder as it is gradually filled
22. Explain functions of collecting ducts of nephrons

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(29) 1078_2007_2_S

Rajiv Gandhi University of Health Sciences

M.B.B.S. PHASE - I Degree Examination - August 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. What is the normal calcium level in blood? Name the hormones required for calcium homeostasis. Discuss in brief the actions of any one of them.
2. Describe the excitation – contraction coupling in skeletal muscle. What is the phenomenon of muscle fatigue?

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

3. Hypothyroidism
4. Stretch reflex
5. Diagrammatic representation of visual pathway
6. Resting membrane potential
7. Three tuning fork tests of hearing
8. Indicators of ovulation
9. Summation and occlusion in synaptic transmission
10. Processes by which heat is lost from the body
11. Cardio-respiratory changes in the mother during third trimester
12. Referred pain

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

13. Addison's disease
14. Milk ejection reflex
15. Classification of nerve fibers by Erlanger and gasser
16. Puberty
17. Factors causing movements of sperms
18. Pacinian corpuscles
19. Near response of eye
20. Alpha block in EEG recording
21. Brown fat
22. Chorea

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1079_2007_2_S02

Rajiv Gandhi University of Health Sciences

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

Time: 3 Hours [Max. Marks: 100]

BIOCHEMSITRY (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. Define glycogenesis & glycogenolysis. Write the reactions of glycogenesis & glycogenolysis in Liver. How are these two pathways reciprocally regulated ?

SHORT ESSAY **5 X 5 = 25 Marks**

2. Explain competitive & noncompetitive inhibition. Mention significance of competitive inhibition.
3. What is Fatty Liver? Explain its causes.
4. Give an account on organization of Electron Transport Chain (ETC).
5. Tumor Markers.
6. Explain the steps of Urea Cycle & Mention the names of its disorders.

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

7. Explain enzyme profile in Myocardial infarction.
8. What is normal serum level of cholesterol? Name its four biological functions?
9. What are Antioxidants. Name chain breaking and preventive antioxidants.
10. Give metabolic functions of Endoplasmic Reticulum & Mitochondria.
11. Explain detoxication by conjugation with two examples.

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

Use separate answer book

LONG ESSAY **1 X 10 = 10 Marks**

1. What are nucleotides? Explain the catabolism of purine nucleotides. Write briefly on the metabolic disorders associated with purine metabolism.

SHORT ESSAY **5 X 5 = 25 Marks**

2. How bilirubin is formed & detoxified in the body.
3. Explain metabolic role of Calcitriol.
4. What is plasmid ? what is its applications in recombitant DNA technology
5. Give an account of storage and transport of iron.
6. Explain metabolic & respiratory acidosis.

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

7. Which are inhibitors of protein biosynthesis.
8. Protein calorie malnutrition.
9. Significance of non-protein nitrogenous substances.
10. Functions of pyridoxal phosphate.
11. Types of RNA & their functions.

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