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RANGARAYA MEDICAL COLLEGE, KAKINADA**

**1<sup>ST</sup> MBBS question papers from 2010 to 2019 UNDER Dr NTRUHS,  
Vijayawada.**

**500-A**

**M.B.B.S. DEGREE EXAMINATION – JANUARY, 2010  
FIRST M.B.B.S. EXAMINATION  
BIOCHEMISTRY  
PAPER-I**

**Time : 2 1/2 Hours**

**Max. Marks: 50**

**Answer all questions**

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- 1) Outline the reactions of Hexose Monophosphate Shunt Pathway. In which tissues this pathway is operative? What is the significance of this pathway? **6+2+2=10**
- 2) How is NADH oxidized in the respiratory chain? Indicate the sites of oxidative phosphorylation. What is chemiosmotic theory? **4+3+3=10**

**WRITE SHORT NOTES ON:** **5x4=20**

- 3) Functions and deficiency of Niacin
- 4) Pyruvate dehydrogenase complex
- 5) Phospholipids and their functions
- 6) Glycogen storage diseases
- 7) Detoxification by conjugation

**WRITE BRIEFLY ON:** **5x2=10**

- 8) Functions of high density lipoprotein
- 9) Biochemically important compounds derived from cholesterol.
- 10) Proenzymes and their importance
- 11) What are ligases? Give two examples
- 12) Functions of ascorbic acid

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**M.B.B.S. DEGREE EXAMINATION – JANUARY, 2010**  
**FIRST M.B.B.S. EXAMINATION**  
**BIOCHEMISTRY**  
**PAPER-II**

**Time : 2 ½ Hours**

**Max. Marks : 50**

**Answer all questions**

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- 1) How is phenylalanine converted to tyrosine in the body? What is phenylketonuria? Outline the formation of thyroid hormones and catecholamines from tyrosine. 2+2+3+3=10
- 2) Give an account of Watson-Crick model of DNA. List the differences between DNA and RNA. How is DNA replicated? 4+2+4=10

**WRITE SHORT NOTES ON:** 5x4=20

- 3) Biochemical functions of copper.
- 4) Clearance Tests.
- 5) Characteristics of genetic code.
- 6) Paper Electrophoresis.
- 7) Metabolic acidosis.

**WRITE BRIEFLY ON:** 5x2=10

- 8) Definition and forces responsible for tertiary structure of a protein.
- 9) Name four important substances derived from glycine.
- 10) Name any two gastrointestinal hormones. What is their mechanism of action?
- 11) Functions of Plasma Albumin.
- 12) What do you mean by post translational modifications? - - -

**M.B.B.S. DEGREE EXAMINATION – JANUARY, 2010**  
**FIRST M.B.B.S. EXAMINATION**  
**ANATOMY**  
**PAPER-I**

**Time : 2 1/2 Hours****Max. Marks : 50****Note: Answer all questions****Illustrate your answers with suitable diagrams**

- 1) Describe cavernous sinus under the following headings:** **3+2+3+2=10**

- a) Relations
- b) Contents
- c) Tributaries
- d) Applied aspects

- 2) Describe axillary nerve under the following headings:** **3+2+3+2=10**

- a) Origin and course
- b) Relations
- c) Branches
- d) Applied aspects

**WRITE SHORT NOTES ON:** **5x4=20**

- 3) Lumbricals**
- 4) Histology of cardiac muscle**
- 5) Fertilization.**
- 6) Development of palate**
- 7) Anastomosis around elbow joint**

**WRITE BRIEFLY ON:** **5x2=10**

- 8) Branches of axillary artery**
- 9) Dorsal venous arch of hand**
- 10) Nuclei related to cerebellum**
- 11) Middle meatal openings**
- 12) Actions of superior oblique muscle of eye ball**

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**M.B.B.S. DEGREE EXAMINATION – JANUARY, 2010**  
**FIRST M.B.B.S. EXAMINATION**  
**ANATOMY**  
**PAPER-II**

**Time : 2 ½ Hours**

**Max. Marks: 50**

**Note: Answer all questions**

**Illustrate your answers with suitable diagrams**

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- 1) Describe typical intercostal space under the following headings:** **2+3+3+2=10**

- a) Boundaries
- b) Contents
- c) Relations
- d) Applied aspects

- 2) Describe stomach under the following headings:** **3+3+2+2=10**

- a) Ligaments related
- b) Blood supply
- c) Lymphatic drainage
- d) Applied aspects

**WRITE SHORT NOTES ON:** **5x4=20**

- 3) Histology of liver**
- 4) Karyotyping**
- 5) Interatrial septal development**
- 6) Ligaments related to knee joint**
- 7) Great saphenous vein**

**WRITE BRIEFLY ON:** **5x2=10**

- 8) Name the branches of femoral artery**
- 9) Openings in the second part of duodenum**
- 10) Coverings of testis**
- 11) Root of mesentery**
- 12) Insertion and action of peroneus longus**

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**M.B.B.S. DEGREE EXAMINATION – JANUARY, 2010**  
**FIRST M.B.B.S. EXAMINATION**  
**PHYSIOLOGY**  
**PAPER-I**

**Time : 2 1/2 Hours**

**Max. Marks: 50**

**Answer all questions**

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- 1) **Discuss the mechanism of formation of concentrated urine. Add a note on diuresis.** **8+2=10**
- 2) **Give the composition, functions of gastric juice. Explain the mechanism of secretion of gastric juice.** **2+2+6=10**

**WRITE SHORT NOTES ON:** **5x4=20**

- 3) **Conducting system of the heart**
- 4) **Oxygen dissociation curve**
- 5) **Effects of mismatched blood transfusion**
- 6) **Juxta glomerular apparatus**
- 7) **Regulation of body temperature**

**WRITE BRIEFLY ON:** **5x2=10**

- 8) **Insulin clearance test**
- 9) **Anti-Coagulants**
- 10) **Chylomicron**
- 11) **A.V. Node**
- 12) **Peripheral resistance**

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**M.B.B.S. DEGREE EXAMINATION – JANUARY, 2010**  
**FIRST M.B.B.S. EXAMINATION**  
**PHYSIOLOGY**  
**PAPER-II**

**Time : 2 1/2 Hours**

**Max. Marks : 50**

**Answer all questions**

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- |  |               |
|--|---------------|
| <b>1)</b> <b>Give an account of the connections and functions of Hypothalamus.</b>   | <b>5+5=10</b> |
| <b>2)</b> <b>Describe the functions of Placental Hormones.<br/>Discuss the diagnostic importance of Human Chorionic Gonadotropins?</b> | <b>7+3=10</b> |

**WRITE SHORT NOTES ON:** **5x4=20**

- 3) Parkinsonism**
- 4) Molecular basis of skeletal muscle contraction**
- 5) Myasthenia gravis**
- 6) Vestibular apparatus**
- 7) Brown-Sequard syndrome**

**WRITE BRIEFLY ON:** **5x2=10**

- 8) Depolarization and repolarization**
- 9) Wallerian degeneration**
- 10) Stretch reflex**
- 11) Hemiplegia**
- 12) Tremor**

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**500-A**

**M.B.B.S. DEGREE EXAMINATION – JULY, 2010  
FIRST M.B.B.S. EXAMINATION  
BIOCHEMISTRY  
PAPER-I**

**Time : 2 1/2 Hours**

**Max. Marks: 50**

**Answer all questions**

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- 1) Explain the formation, utilization and excretion of ketone bodies. What is ketoacidosis?  $4+2+2+2=10$**
- 2) How is acetyl CoA oxidized in citric acid cycle? What is it's energetics? Why it is called amphibolic pathway?  $6+2+2=10$**

**WRITE SHORT NOTES ON:**  $5 \times 4 = 20$

- 3) Isoenzymes**
- 4) Fatty Liver**
- 5) Inhibitors of respiratory chain**
- 6) Diagnostic importance of enzymes**
- 7) Biochemical functions of Vitamin D.**

**WRITE BRIEFLY ON:**  $5 \times 2 = 10$

- 8) Cori cycle.**
- 9) Hyaluronic acid and its functions.**
- 10) What is substrate level phosphorylation? Give two examples.**
- 11) Functions of cholesterol.**
- 12) What are lyases? Give two examples.**

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**M.B.B.S. DEGREE EXAMINATION – JULY, 2010**  
**FIRST M.B.B.S. EXAMINATION**  
**BIOCHEMISTRY**  
**PAPER-II**

**Time : 2 1/2 Hours**

**Max. Marks : 50**

**Answer all questions**

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- 1) How is glycine degraded in the body? Outline the synthesis of creatine from glycine. Enumerate the metabolic diseases of glycine.** **4+3+3=10**
- 2) Explain transcription. Name the different types of RNA and indicate their functions.** **6+2+2=10**

**WRITE SHORT NOTES ON:** **5x4=20**

- 3) Biochemical functions of zinc and iodine.**
- 4) Nitrogen balance.**
- 5) Blood buffers and regulation of pH.**
- 6) Biologically active peptides.**
- 7) Recombinant DNA and its applications**

**WRITE BRIEFLY ON:** **5x2=10**

- 8) What is isoelectric pH of a protein? Mention two properties of a protein at this pH.**
- 9) What is creatine clearance? What is its diagnostic importance?**
- 10) Name any two Group I hormones. What is their mechanism of action?**
- 11) Write the functions of immunoglobulin G.**
- 12) What are tumor markers? Give two examples.**

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**M.B.B.S. DEGREE EXAMINATION – JULY, 2010**  
**FIRST M.B.B.S. EXAMINATION**  
**ANATOMY**  
**PAPER-I**

**Time : 2 1/2 Hours**

**Max. Marks : 50**

**Note: Answer all questions**

**Illustrate your answers with suitable diagrams**

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- 1) Describe the gross anatomy of mammary gland. Add a note on its development.** **8+2=10**
- 2) Enumerate the dural venous sinuses. Describe the tributaries, connections and applied anatomy of "Cavernous Sinus".** **3+7=10**

**WRITE SHORT NOTES ON:** **5x4=20**

- 3) Falx Cerebri**
- 4) Histology of Parotid salivary gland**
- 5) Lumbricals of hand**
- 6) Maxillary artery**
- 7) Spermatogenesis**

**WRITE BRIEFLY ON:** **5x2=10**

- 8) Coracoid process of scapula**
- 9) Association fibres of brain**
- 10) Facial cleft**
- 11) Ansa cervicalis**
- 12) Emissary veins**

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**M.B.B.S. DEGREE EXAMINATION – JULY, 2010**  
**FIRST M.B.B.S. EXAMINATION**  
**ANATOMY**  
**PAPER-II**

**Time : 2 ½ Hours**

**Max. Marks: 50**

**Note: Answer all questions**

**Illustrate your answers with suitable diagrams**

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|---|--------------------------------|
| <p><b>1) Describe the hip joint under following headings:</b></p> <ul style="list-style-type: none"> <li>a) Type &amp; formations</li> <li>b) Ligaments</li> <li>c) Relations</li> <li>d) Movements</li> <li>e) Applied anatomy</li> </ul><br><p><b>2) Describe the thoraco-abdominal diaphragm under following headings:</b></p> <ul style="list-style-type: none"> <li>a) Origin</li> <li>b) Insertion</li> <li>c) Nerve Supply</li> <li>d) Function &amp; Development</li> <li>e) Applied Anatomy</li> </ul> | $2+2+2+2=10$<br>$2+2+1+3+2=10$ |
|---|--------------------------------|

**WRITE SHORT NOTES ON:** **5x4=20**

- 3) Histology of testis**
- 4) Thoracic duct**
- 5) Coeliac Trunk**
- 6) Porto-caval anstomosis**
- 7) Hamstring muscles**

**WRITE BRIEFLY ON:** **5x2=10**

- 8) Transverse sinus of pericardium**
- 9) Blood supply of lungs**
- 10) Stomach bed**
- 11) Recto-uterine pouch**
- 12) In-vitro fertilization**

**503-A**

**M.B.B.S. DEGREE EXAMINATION – JULY, 2010  
FIRST M.B.B.S. EXAMINATION  
PHYSIOLOGY  
PAPER-I**

**Time : 2 1/2 Hours**

**Max. Marks: 50**

**Answer all questions**

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- |   |           |
|---|-----------|
| <b>1)</b> <b>Classify leucocytes. Give an account of development and functions of different Leucocytes.</b> | <b>10</b> |
| <b>2)</b> <b>Discuss the mechanism of regulation of our body temperature.</b>                               | <b>10</b> |

**WRITE SHORT NOTES ON:** **5x4=20**

- 3) Deglutition**
- 4) Korotkoff's sounds**
- 5) Hypoxia**
- 6) Lung surfactant and its applied aspects**
- 7) T cells v/s B cells**

**WRITE BRIEFLY ON:** **5x2=10**

- 8) Erythropoietin**
- 9) Bile salts**
- 10) Function of Gastrin**
- 11) Tidal volume**
- 12) P-R Interval**

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**M.B.B.S. DEGREE EXAMINATION – JULY, 2010**  
**FIRST M.B.B.S. EXAMINATION**  
**PHYSIOLOGY**  
**PAPER-II**

**Time : 2 1/2 Hours**

**Max. Marks : 50**

**Answer all questions**

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- 13) What are the actions of Thyroid Hormones on metabolism? Give an account of hyposecretion of thyroid hormone.** 10
- 14) Name the different parts of the Ear. Explain the mechanism of hearing.** 10

**WRITE SHORT NOTES ON:** **5x4=20**

- 15) Accommodation reflexes**
- 16) Ovulation**
- 17) Diabetes mellitus and diabetes Insipidus**
- 18) Contraceptive methods**
- 19) Resting membrane potential**

**WRITE BRIEFLY ON:** **5x2=10**

- 20) Menarche, Menopause**
- 21) Gigantism**
- 22) Astigmatism**
- 23) Waves of EEG**
- 24) Babinski Sign**

- - -

**500-A**

**M.B.B.S. DEGREE EXAMINATION – JANUARY, 2011  
FIRST M.B.B.S. EXAMINATION  
BIOCHEMISTRY  
PAPER-I**

**Time : 2 ½ Hours**

**Max. Marks: 50**

**Answer all questions**

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- 13) Describe the sources, dietary requirements, biochemical functions and deficiency manifestations of Vitamin A.**  $1+1+4+4=10$
- 14) Mention the pathways by which Glucose is metabolized in the body. Describe the steps of anaerobic glycogenesis and its energetics.**  $2+6+2=10$

**WRITE SHORT NOTES ON:**

**$5 \times 4 = 20$**

- 15) Schematically represent the Electron Transport Chain indicating the sites of ATP production and Inhibitors.**
- 16) Formation and fate of Bile pigments.**
- 17) Factors affecting enzyme activity.**
- 18) Abnormal Hemoglobins.**
- 19) Lipoproteins.**

**WRITE BRIEFLY ON:**

**$5 \times 2 = 10$**

- 20) Biological value of proteins.**
- 21) K<sub>m</sub> value and its significance.**
- 22) Dietary fiber.**
- 23) Detoxification by Oxidation.**
- 24) Lactose Intolerance.**

**- - -**

**M.B.B.S. DEGREE EXAMINATION – JANUARY, 2011**  
**FIRST M.B.B.S. EXAMINATION**  
**BIOCHEMISTRY**  
**PAPER-II**

**Time : 2 1/2 Hours**

**Max. Marks: 50**

**Answer all questions**

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- 13) Define a buffer. Explain the various mechanisms of regulation of acid-base balance. Add a note on acid-base disorders.** **1+7+2=10**
- 14) Describe the steps of eukaryotic replication of DNA. Add a note on Reverse transcription.** **8+2=10**

**WRITE SHORT NOTES ON:** **5x4=20**

- 15) Absorption and transportation of Iron.**
- 16) Purine salvage pathways.**
- 17) Outline the steps of biosynthesis of Urea.**
- 18) Mechanisms of hormone action.**
- 19) Renal Function Tests.**

**WRITE BRIEFLY ON:** **5x2=10**

- 20) Define denaturation of proteins. Give examples of denaturing agents.**
- 21) What are plasma proteins and write their normal ranges?**
- 22) What are Oncogenes and give examples?**
- 23) Orotic acidurias.**
- 24) Mention the biochemical defects in:-**

- a. Alkaptonuria**
- b. Maple syrup urine disease**

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**M.B.B.S. DEGREE EXAMINATION – JANUARY, 2011**  
**FIRST M.B.B.S. EXAMINATION**  
**ANATOMY**  
**PAPER-I**

**Time : 2 ½ Hours****Max. Marks : 50****Note: Answer all questions****Illustrate your answers with suitable diagrams**

**13) Discuss Brachial plexus under following headings:** **2+3+3+2=10**

- a) Formation
- b) Relations
- c) Branches
- d) Applied aspects

**14) Discuss lateral wall of nasal cavity under following headings:** **5+2+2+1=10**

- a) Features
- b) Nerve supply
- c) Blood supply
- d) Applied aspect

**WRITE SHORT NOTES ON:** **5x4=20**

**15) Histology of thymus.**

**16) Ciliary ganglion.**

**17) Lateral pterygoid muscle.**

**18) Primitive streak.**

**19) Distribution of ulnar nerve in the hand.**

**WRITE BRIEFLY ON:** **5x2=10**

**20) Blood supply of mammary gland.**

**21) Jugular foramen – structures passing.**

**22) Name the cartilages of larynx.**

**23) Name all the muscles of pharynx.**

**24) Diagram of circle of Willis.**

- - -

**M.B.B.S. DEGREE EXAMINATION – JANUARY, 2011**  
**FIRST M.B.B.S. EXAMINATION**  
**ANATOMY**  
**PAPER-II**

**Time : 2 ½ Hours**

**Max. Marks: 50**

**Note: Answer all questions**

**Illustrate your answers with suitable diagrams**

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**13) Discuss right atrium under following headings:** **6+4=10**

- a) Gross features
- b) Development

**14) Discuss knee joint under following headings:** **3+3+3+1=10**

- a) Ligaments
- b) Movements
- c) Bursae
- d) Applied Anatomy

**WRITE SHORT NOTES ON:** **5x4=20**

**15) Down's syndrome.**

**16) Ureter.**

**17) Histology of spleen.**

**18) Ligaments of liver.**

**19) Classification of cartilage.**

**WRITE BRIEFLY ON:** **5x2=10**

**20) Sertoli cells.**

**21) Inguinal lymph nodes.**

**22) Trigone of urinary bladder.**

**23) Dorsalis paedis artery.**

**24) Name the branches of femoral nerve.**

**M.B.B.S. DEGREE EXAMINATION – JANUARY, 2011**  
**FIRST M.B.B.S. EXAMINATION**  
**PHYSIOLOGY**  
**PAPER-I**

**Time : 2 1/2 Hours**

**Max. Marks: 50**

**Answer all questions**

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- 13) Define arterial blood pressure. Mention its normal values. Explain the regulation of blood pressure.** **1+1+8=10**

- 14) Describe reabsorption of water in Renal tubules. Add a note on Diabetes insipidus.** **8+2=10**

**WRITE SHORT NOTES ON:** **5x4=20**

- 15) Various stages of Asphyxia.**

- 16) Functions of skin.**

- 17) Jaundice.**

- 18) Mechanism of Hydrochloric acid secretion in stomach.**

- 19) Erythrocyte Sedimentation Rate (ESR).**

**WRITE BRIEFLY ON:** **5x2=10**

- 20) Mitochondria.**

- 21) Fever.**

- 22) Classify anaemias.**

- 23) Residual volume.**

- 24) Define vital capacity and mention its values.**

- - -

**M.B.B.S. DEGREE EXAMINATION – JANUARY, 2011**  
**FIRST M.B.B.S. EXAMINATION**  
**PHYSIOLOGY**  
**PAPER-II**

**Time : 2 1/2 Hours**

**Max. Marks : 50**

**Answer all questions**

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**25) What is Referred Pain? Explain the theories of Referred Pain and mention few examples.** **2+5+3=10**

**26) Mention normal blood calcium level. Explain how it is regulated.** **2+8=10**

**WRITE SHORT NOTES ON:** **5x4=20**

**27) What is spermatogenesis? Mention factors which regulate spermatogenesis.**

**28) Visual pathway.**

**29) Mention the actions of chemicals at Neuro-muscular junctions.**  
a. Cholinesterase  
b. Curare  
c. Physostigmine

**30) Milk ejection reflex.**

**31) Light and dark adaptation of eyes.**

**WRITE BRIEFLY ON:** **5x2=10**

**32) Corpus luteum.**

**33) Vibration sense.**

**34) Functions of middle ear.**

**35) Aldosterone.**

**36) Hearing Tests.**

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**M.B.B.S. DEGREE EXAMINATION – JULY, 2011**  
**FIRST M.B.B.S. EXAMINATION**  
**BIOCHEMISTRY**  
**PAPER-I**

**Time : 2 1/2 Hours**

**Max. Marks: 50**

**Answer all questions**

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- 25) Describe the CITRIC ACID cycle with energetics. Explain the Amphibolic role of this cycle?      6+2+2=10**
- 26) Write the sources, daily requirements, functions and deficiency manifestations of Vitamin C?      2+1+4+3=10**

**WRITE SHORT NOTES ON:**      **5x4=20**

- 27) Chemiosmotic theory and oxidative phosphorylation.**

- 28) Porphyrias.**

- 29) Digestion and absorption of lipids.**

- 30) Competitive Inhibition and its clinical significance**

- 31) Enzyme markers in myocardial infarction.**

**WRITE BRIEFLY ON:**      **5x2=10**

- 32) Give two examples for phospholipids and write their functions.**

- 33) Specific Dynamic Action.**

- 34) MUTAROTATION.**

- 35) What are Antivitamins? Give any two examples with vitamin inhibited by them.**

- 36) Absolute specificity of Enzymes.**

- - -

**M.B.B.S. DEGREE EXAMINATION – JULY, 2011**  
**FIRST M.B.B.S. EXAMINATION**  
**BIOCHEMISTRY**  
**PAPER-II**

**Time : 2 1/2 Hours**

**Max. Marks : 50**

**Answer all questions**

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- 25) What is the normal pH of blood? Discuss the respiratory and renal regulation of pH.** 1+4+5=10
- 26) Explain the pathway of catabolism of Tyrosine. Write the important products synthesized from Tyrosine. Add a note on Albinism.** 5+3+2=10

**WRITE SHORT NOTES ON:** **5x4=20**

- 27) Replication.**
- 28) Fluid Mosaic Model of membrane structure.**
- 29) What is Recombinant DNA? What is the role of restriction endonuclease in Recombinant DNA technique?**
- 30) Name the plasma proteins. List any four functions of them in the human body.**
- 31) Creatinine Clearance test.**

**WRITE BRIEFLY ON:** **5x2=10**

- 32) Apoptosis.**
- 33) Oxytocin**
- 34) FLUOROSIS**
- 35) Vandenberg's Test.**
- 36) Anion gap.**

- - -

**M.B.B.S. DEGREE EXAMINATION – JULY, 2011**  
**FIRST M.B.B.S. EXAMINATION**  
**ANATOMY**  
**PAPER-I**

**Time : 2 ½ Hours****Max. Marks : 50****Note: Answer all questions****Illustrate your answers with suitable diagrams**

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- 25) Describe axillary artery under the following heading:** **2+4+2+2=10**  
 (a) Course (b) Relations (c) Branches  
 (d) Applied anatomy.
- 26) Name the muscles of mastication. Give the** **2+2+1+2+3=10**  
 (a) Origin (b) Insertion (c) Nerve supply  
 (d) Actions (e) Relations of – Lateral Pterygoid Muscle.

**WRITE SHORT NOTES ON:** **5x4=20**

- 27) Nasal Septum**
- 28) Histology of Palatine Tonsil**
- 29) Mesodermal derivatives of II Branchial Arch**
- 30) Clavipectoral Fascia**
- 31) Floor of IV ventricle of brain**

**WRITE BRIEFLY ON:** **5x2=10**

- 32) Circumvallate papillae.**
- 33) Nerve supply and action of Deltoid**
- 34) Sinuses opening into middle meatus of nose.**
- 35) External jugular vein**
- 36) Styloid process.**

- - -

**M.B.B.S. DEGREE EXAMINATION – JULY, 2011**  
**FIRST M.B.B.S. EXAMINATION**  
**ANATOMY**  
**PAPER-II**

**Time : 2 1/2 Hours****Max. Marks: 50****Note: Answer all questions****Illustrate your answers with suitable diagrams**

- 25) Name the arches of foot. Describe the Medial Longitudinal Arch. Add a note on its applied anatomy.** **2+5+3=10**
- 26) Describe the Hip joint under the following headings:** **2+2+3+3=10**
- (a) Articular surfaces (b) Ligaments  
(c) movements (d) Applied anatomy.**

**WRITE SHORT NOTES ON:** **5x4=20**

- 27) Greater omentum-Attachments, contents and functions.**
- 28) Supports of uterus.**
- 29) Histology of duodenum.**
- 30) Karyotyping.**
- 31) Popliteus muscle.**

**WRITE BRIEFLY ON:** **5x2=10**

- 32) Mention the derivatives of mesonephric duct in male.**
- 33) Iliofemoral ligament.**
- 34) Epiploic foramen.**
- 35) Pleura.**
- 36) Mention the contents of the rectus sheath.**

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**M.B.B.S. DEGREE EXAMINATION – JULY, 2011**  
**FIRST M.B.B.S. EXAMINATION**  
**PHYSIOLOGY**  
**PAPER-I**

**Time : 2 1/2 Hours**

**Max. Marks: 50**

**Answer all questions**

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- 25) Explain the hormonal phase of Pancreatic juice secretion.** **10**

- 26) What is Hypoxia? Classify it. Explain them in brief.** **10**

**WRITE SHORT NOTES ON:** **5x4=20**

- 27) Anticoagulants.**

- 28) Erythroblastosis Foetalis**

- 29) Venous Return**

- 30) Artificial kidney**

- 31) Heart sounds**

**WRITE BRIEFLY ON:** **5x2=10**

- 32) Endocytosis**

- 33) Carotid bodies**

- 34) Sweat glands**

- 35) What is Tubular maximum for Glucose (TmG)**

- 36) Anti Diuretic Hormone (ADH)**

- - -

**M.B.B.S. DEGREE EXAMINATION – JULY, 2011**  
**FIRST M.B.B.S. EXAMINATION**  
**PHYSIOLOGY**  
**PAPER-II**

**Time : 2 1/2 Hours**

**Max. Marks : 50**

**Answer all questions**

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- 37) What is Puberty? Mention the changes that occur during puberty in females.** **2+8=10**
- 38) Mention the formation, composition and functions of Cerebro Spinal Fluid (C.S.F).** **3+3+4=10**

**WRITE SHORT NOTES ON:** **5x4=20**

- 39) Define Resting Membrane Potential. What is its ionic basis?**
- 40) List the differences between upper motor neuron lesion (UMN) and lower motor neuron lesion (LMN).**

- 41) List the important effects of Adrenaline on different tissues.**

- 42) Addison's disease.**

- 43) Mention common errors of Refraction, its causes and their corrections.**

**WRITE BRIEFLY ON:** **5x2=10**

- 44) Motor end plate.**
- 45) Mention the properties of Receptors.**
- 46) Functions of Iris.**
- 47) Myxoedema.**
- 48) Taste buds.**

**M.B.B.S. DEGREE EXAMINATION – JANUARY, 2012**  
**FIRST M.B.B.S. EXAMINATION**  
**BIOCHEMISTRY**  
**PAPER-I**

**Time : 2 1/2 Hours****Max. Marks: 50****Answer all questions**

- 37) Explain the various factors affecting the enzyme activity. Add a note on the significance of the  $k_m$  value of the enzyme.** **7+3=10**
- 38) Discuss the mitochondrial electron transport chain (E.T.C.) and the inhibitors at various sites of this chain.** **10**

**WRITE SHORT NOTES ON:** **5x4=20**

- 39) Detoxification by conjugation.**
- 40) Glycogen storage diseases.**
- 41) Fatty liver and lipotropic factors.**
- 42) Hemoglobinopathies with examples.**
- 43) Functions and deficiency features of Pyridoxine.**

**WRITE BRIEFLY ON:** **5x2=10**

- 44) Define isoenzymes. Give two examples and their diagnostic use.**
- 45) Functions of Bile Salts.**
- 46) Energetics of TCA (tricarboxylic acid) cycle.**
- 47) Define antioxidants. Which Vitamins have antioxidant function?**
- 48) Respiratory Quotient.**

- - -

**M.B.B.S. DEGREE EXAMINATION – JANUARY, 2012**  
**FIRST M.B.B.S. EXAMINATION**  
**BIOCHEMISTRY**  
**PAPER-II**

**Time : 2 ½ Hours****Max. Marks : 50****Answer all questions**

- 37) Describe the steps of transcription in Eukaryotes.** **8+2=10**  
**Give two examples for post transcriptional modifications.**
- 38) Discuss the metabolism of calcium under the following sections:** **1+1+4+2+2=10**  
**(a) sources (b) Recommended daily allowance**  
**(c) Functions (any 4) (d) Regulation of Plasma Level**  
**(e) Deficiency manifestations**

**WRITE SHORT NOTES ON:****5x4=20**

- 39) Plasma buffers and the role of buffers in the regulation of pH.**
- 40) Mechanisms of action of hormones.**
- 41) Active transport with 2 examples.**
- 42) Biological important products derived from glycine.**
- 43) Enumerate the liver function tests. Explain the detoxification of bilirubin by the liver.**

**WRITE BRIEFLY ON:****5x2=10**

- 44) Role of copper in iron metabolism.**
- 45) Orotic aciduria**
- 46) Bonds responsible for maintaining the higher levels of organization of protein structure.**
- 47) Ribozymes.**
- 48) Oncofetal antigens.**

- - -

**M.B.B.S. DEGREE EXAMINATION – JANUARY, 2012**  
**FIRST M.B.B.S. EXAMINATION**  
**ANATOMY**  
**PAPER-I**

**Time : 2 1/2 Hours****Max. Marks : 50****Note: Answer all questions****Illustrate your answers with suitable diagrams**

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- 37) Describe thyroid gland under the following headings:** **3+2+3+2=10**  
 (a) Gross features      (b) Relations  
 (c) Blood supply      (d) Applied aspects.

- 38) Describe the course, relations, branches and applied anatomy of ulnar nerve.** **2+3+3+2=10**

**WRITE SHORT NOTES ON:** **5x4=20**

**39) Flexor retinaculum of hand.**

**40) Lateral ventricle**

**41) Development of Tongue and its nerve supply**

**42) Histology of lymph node**

**43) Supinator muscle**

**WRITE BRIEFLY ON:** **5x2=10**

**44) Boundaries of cubital fossa.**

**45) Parotid duct**

**46) Cauda equina.**

**47) Formation and termination of superficial palmar arch**

**48) Branches of radial nerve in the radial groove.**

- - -

**M.B.B.S. DEGREE EXAMINATION – JANUARY, 2012**  
**FIRST M.B.B.S. EXAMINATION**  
**ANATOMY**  
**PAPER-II**

**Time : 2 1/2 Hours****Max. Marks: 50****Note: Answer all questions****Illustrate your answers with suitable diagrams**

- 37) Describe femoral artery under the following headings:** **3+3+3+1=10**  
 (a) Origin and course (b) Relations  
 (c) Branches (d) Clinical importance.
- 38) Describe uterus under the following headings:** **3+3+2+2=10**  
 (a) Ligaments (b) Blood supply  
 (c) Lymphatic drainage (d) Applied aspects.

**WRITE SHORT NOTES ON:** **5x4=20**

- 39) Pericardium.**
- 40) Histology of kidney.**
- 41) Turner's syndrome.**
- 42) Development of urinary bladder.**
- 43) Stomach bed.**

**WRITE BRIEFLY ON:** **5x2=10**

- 44) Name the derivatives of mesonephric duct.**
- 45) Perineal body.**
- 46) Hiltons Law.**
- 47) Openings in the diaphragm.**
- 48) Positions of Appendix.**

- - -

**M.B.B.S. DEGREE EXAMINATION – JANUARY, 2012**  
**FIRST M.B.B.S. EXAMINATION**  
**PHYSIOLOGY**  
**PAPER-I**

**Time : 2 1/2 Hours**

**Max. Marks: 50**

**Answer all questions**

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- 37) Describe the composition, functions and regulation of gastric juice secretion.**  $2+3+5=10$

- 38) Describe counter current multiplier system in the kidney.**  $10$

**WRITE SHORT NOTES ON:**  $5 \times 4 = 20$

- 39) Mention functions of Platelets.**

- 40) Cyanosis**

- 41) Surfactant and its functions**

- 42) Anaemias**

- 43) Draw and label waves of ECG (Electro Cardiogram)**

**WRITE BRIEFLY ON:**  $5 \times 2 = 10$

- 44) Secretory vesicles**

- 45) Functions of spleen**

- 46) Cross matching of blood**

- 47) Functions of lymph.**

- 48) Heart sounds.**

- - -

**504-A**

**M.B.B.S. DEGREE EXAMINATION – JANUARY, 2012  
FIRST M.B.B.S. EXAMINATION  
PHYSIOLOGY  
PAPER-II**

**Time : 2 1/2 Hours**

**Max. Marks : 50**

**Answer all questions**

---

**49) Explain the physiological actions of Insulin. 10**

**50) Describe the actions of ovarian hormones. 10**

**WRITE SHORT NOTES ON: 5x4=20**

**51) What is blood brain barrier? What is its functions and clinical importance?**

**52) What is Referred pain? Explain suitably.**

**53) Draw a neat diagram of Light reflex pathway and label it.**

**54) Functions of Limbic system.**

**55) Family planning methods in males.**

**WRITE BRIEFLY ON: 5x2=10**

**56) Draw a diagram of sarcomere and label it.**

**57) Refractory period.**

**58) Where is area number 44 located? What is its functions?**

**59) Functions of middle ear.**

**60) Adrenogenital syndrome.**

- - -

**500-A**

**M.B.B.S. DEGREE EXAMINATION – JULY, 2012  
FIRST M.B.B.S. EXAMINATION  
BIOCHEMISTRY  
PAPER-I**

**Time : 2 1/2 Hours**

**Max. Marks: 50**

**Answer all questions**

---

- 49) Explain the reactions of Glycogenesis and Glycogenolysis in liver. How are these pathways regulated?** **4+3+3=10**
- 50) Give an account of the sources, chemistry, biochemical functions, deficiency diseases and daily requirement of vitamin A.** **1+2+3+3+1=10**

**WRITE SHORT NOTES ON:** **5x4=20**

- 51) Ketogenesis**
- 52) Porphyrias**
- 53) Competitive inhibition.**
- 54) Kwashiorkor and marasmus**
- 55) Galactosemia**

**WRITE BRIEFLY ON:** **5x2=10**

- 56) Essential fatty acids.**
- 57) What are Isomerases? Give two examples.**
- 58) Sickle cell hemoglobin**
- 59) Enzyme defects in essential fructosuria and hereditary fructose intolerance.**
- 60) Sources and functions of Folic acid.**

- - -

**M.B.B.S. DEGREE EXAMINATION – JULY, 2012**  
**FIRST M.B.B.S. EXAMINATION**  
**BIOCHEMISTRY**  
**PAPER-II**

**Time : 2 ½ Hours**

**Max. Marks : 50**

**Answer all questions**

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- 49) Explain the pathway for the degradation of purine nucleotides and enumerate the associated metabolic disorders.** **6+4=10**
- 50) Give an account of transamination, deamination and transmethylation.** **4+3+3=10**

**WRITE SHORT NOTES ON:** **5x4=20**

- 51) Regulation of plasma calcium**
- 52) Metabolic and respiratory alkalosis**
- 53) Plasma proteins and their functions.**
- 54) Tumor markers.**
- 55) Secondary structure of proteins.**

**WRITE BRIEFLY ON:** **5x2=10**

- 56) Differences between amylose and amylopectin**
- 57) What are conjugated proteins? Give two examples.**
- 58) Biochemical functions of sodium.**
- 59) Base pairing rule**
- 60) Alkaptonuria**

- - -

**M.B.B.S. DEGREE EXAMINATION – JULY, 2012**  
**FIRST M.B.B.S. EXAMINATION**  
**ANATOMY**  
**PAPER-I**

**Time : 2 1/2 Hours****Max. Marks : 50****Note: Answer all questions****Illustrate your answers with suitable diagrams**

---

- 49) Describe the extra ocular muscles under the following headings:** **3+3+2+2=10**  
 (a)Origin (b) Insertion (c) Nerve supply  
 (d) action
- 50) Write about the gross anatomy, lymphatic drainage and applied aspects of mammary gland.** **4+3+3=10**

**WRITE SHORT NOTES ON:** **5x4=20**

- 51) Inferior horn of lateral ventricle**
- 52) Decidua**
- 53) First pharyngeal arch**
- 54) Microscopic appearance of muscular artery**
- 55) Fornix**

**WRITE BRIEFLY ON:** **5x2=10**

- 56) Axillary Sheath**
- 57) Middle radio-ulnar joint**
- 58) Little's area**
- 59) Foramen caecum**
- 60) Filum terminale**

- - -

**M.B.B.S. DEGREE EXAMINATION – JULY, 2012**  
**FIRST M.B.B.S. EXAMINATION**  
**ANATOMY**  
**PAPER-II**

**Time : 2 ½ Hours**

**Max. Marks: 50**

**Note: Answer all questions**

**Illustrate your answers with suitable diagrams**

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- |   |               |
|---|---------------|
| <b>49) Describe the pelvic diaphragm and its applied anatomy</b>                  | <b>6+4=10</b> |
| <b>50) Describe the internal feature of right atrium and give its development</b> | <b>5+5=10</b> |

**WRITE SHORT NOTES ON:** **5x4=20**

- 51) Dorsalis pedis artery**
- 52) Popliteus muscle**
- 53) Microscopic structure of lung**
- 54) Down syndrome**
- 55) Femoral sheath**

**WRITE BRIEFLY ON:** **5x2=10**

- 56) Metaphysis**
- 57) Douglas pouch**
- 58) Ligamentum arteriosum**
- 59) Trochanteric anastomosis**
- 60) Pulmonary ligament**

- - -

**M.B.B.S. DEGREE EXAMINATION – JULY, 2012**  
**FIRST M.B.B.S. EXAMINATION**  
**PHYSIOLOGY**  
**PAPER-I**

**Time : 2 1/2 Hours**

**Max. Marks: 50**

**Answer all questions**

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- 49) Define blood pressure, systolic pressure, diastolic pressure and pulse pressure with their normal values. Explain the baroreceptor reflex regulation of blood pressure with a suitable diagram.** **10**
- 2) What is the physiological basis of blood grouping? Explain the blood groups and their clinical importance. Add a note on cross matching.** **10**

**WRITE SHORT NOTES ON:** **5x4=20**

- 3) Erythropoiesis**
- 4) Pacemaker potential**
- 5) Coronary circulation**
- 6) Timed vital capacity in obstructive and restrictive disorders with diagram**
- 7) Enterohepatic circulation of bile salts.**

**WRITE BRIEFLY ON:** **5x2=10**

- 8) Dietary fiber**
- 9) Arteriovenous anastomoses**
- 10) Triple response**
- 11) Inulin clearance**
- 12) Chloride shift**

- - -

**504-A**

**M.B.B.S. DEGREE EXAMINATION – JULY, 2012**  
**FIRST M.B.B.S. EXAMINATION**  
**PHYSIOLOGY**  
**PAPER-II**

**Time : 2 1/2 Hours**

**Max. Marks : 50**

**Answer all questions**

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- 61) Draw a labelled diagram of neuromuscular junction. Enumerate the events which occur during its transmission and add a note on myasthenia gravis.** **10**
- 62) Name the functional divisions of cerebellum. Explain the connections and functions of it and add a note on cerebellar disease.** **10**

**WRITE SHORT NOTES ON:** **5x4=20**

- 63) Spermatogenesis**
- 64) Features of Cushing's syndrome**
- 65) Role of hypothalamus in regulation of food intake**
- 66) Parkinsonism and physiological basis of a drug used in its treatment**
- 67) Colour vision**

**WRITE BRIEFLY ON:** **5x2=10**

- 68) Flight or fight reaction**
- 69) Actions of gonadotrophic hormone in males and females**
- 70) Renshaw cell inhibition**
- 71) Functions of blood testis barrier**
- 72) Physiological basis of anovulatory menstrual cycle**

- - -

**500-A**

**M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2012**

**FIRST M.B.B.S. EXAMINATION  
BIOCHEMISTRY  
PAPER-I**

**Time : 2 ½ Hours**

**Max. Marks: 50**

**Answer all questions**

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**61) Describe the biochemical changes in carbohydrate and lipid metabolism in prolonged starvation.** 5+5=10

**62) Describe the formation, transport and metabolic fate of ammonia in the body. What is ammonia toxicity?** 2+2+4+2=10

**WRITE SHORT NOTES ON:** 5x4=20

**63) Isoenzymes and their clinical importance**

**64) Folate trap (Methyl trap)**

**65) Define basal metabolic rate (BMR) and list the factors affecting BMR.**

**66) Advantages and disadvantages of intake of polyunsaturated fatty acids**

**67) Structure and function of glutathione**

**WRITE BRIEFLY ON:** 5x2=10

**68) Dietary fibre**

**69) Two main causes of Fatty liver**

**70) Main sources of sucrose and lactose.**

**71) Mention four Biochemical functions of vitamin K**

**72) Any four functions of phospholipids**

**M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2012**  
**FIRST M.B.B.S. EXAMINATION**  
**BIOCHEMISTRY**  
**PAPER-II**

**Time : 2 ½ Hours**

**Max. Marks : 50**

## **Answer all questions**

- 61) Describe the process of DNA replication. Enumerate the DNA repair mechanisms.** 8+2=10

**62) Write the causes and biochemical findings in metabolic acidosis. Explain the compensatory mechanism.** 2+3+5=10

**WRITE SHORT NOTES ON:** **5x4=20**

- 63) Gout**
  - 64) Gastric function tests**
  - 65) Structure of plasma membrane**
  - 66) Creatinine clearance test**
  - 67) Biochemical functions of Copper in the body.**

**WRITE BRIEFLY ON:** **5x2=10**

- 68) Mention the essential component (rare element) and precursor of T<sub>3</sub>&T<sub>4</sub>**

**69) Functions of t-RNA**

**70) Name the four distinct phases of cell cycle**

**71) Genetic code**

**72) Four factors affecting absorption of iron**

- - -

**M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2012  
FIRST M.B.B.S. EXAMINATION  
ANATOMY  
PAPER-I**

**Time : 2 ½ Hours**

**Max. Marks : 50**

**Note: Answer all questions**

**Illustrate your answers with suitable diagrams**

---

**61) Describe the tongue under following headings:** **3+3+2+2=10**

- a) Surface features
- b) Musculature
- c) Nerve Supply
- d) Development

**62) Describe Brachial plexus under the following headings:** **2+3+2+3=10**

- a) Formation
- b) Relations
- c) Branches
- d) Applied anatomy

**WRITE SHORT NOTES ON:** **5x4=20**

**63) Supinators of Forearm**

**64) Notochord**

**65) Draw a section of spinal cord and label the internal structures.**

**66) Microscopic appearance of thin skin**

**67) Lacrimal apparatus**

**WRITE BRIEFLY ON:** **5x2=10**

**68) Action of Lumbricals**

**69) Winging of Scapula**

**70) Insula**

**71) Arcuate Nuclei**

**72) Rotator Cuff**

- - -

**M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2012**  
**FIRST M.B.B.S. EXAMINATION**  
**ANATOMY**  
**PAPER-II**

**Time : 2 ½ Hours****Max. Marks: 50****Note: Answer all questions****Illustrate your answers with suitable diagrams**

- 61) Describe the boundaries and contents of popliteal fossa. Describe origin, course and branches of popliteal artery.** **5+5=10**
- 62) Describe the uterus under the following headings:** **2+2+4+2=10**
- a) Gross features
  - b) Relations
  - c) Supports
  - d) Development

**WRITE SHORT NOTES ON:** **5x4=20**

- 63) Differences between the left and right lungs.**
- 64) Arterial supply of heart.**
- 65) Microscopic Anatomy of Suprarenal Gland**
- 66) Histology of testis**
- 67) Femoral Sheath**

**WRITE BRIEFLY ON:** **5x2=10**

- 68) Types of Ossification**
- 69) Definition of Mesentery**
- 70) Movements at ankle joint**
- 71) Cribriform Fascia**
- 72) Contents of Spermatic Cord**

- - -

**M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2012**  
**FIRST M.B.B.S. EXAMINATION**  
**PHYSIOLOGY**  
**PAPER-I**

**Time : 2 1/2 Hours**

**Max. Marks: 50**

**Answer all questions**

---

- 50) Enumerate the respiratory centers. Explain the neural and chemical regulation of respiration.** **2+4+4=10**
- 2) Give an account of various factors involved in blood coagulation. Write a note on fibrinolytic system.** **6+4=10**

**WRITE SHORT NOTES ON:** **5x4=20**

- 3) Action potential of ventricular muscle**
- 4) Describe the composition and functions of Bile.**
- 5) Composition and functions of Saliva**
- 6) Regulation of glomerular filtration rate**
- 7) Lung volumes and capacities with their normal values.**

**WRITE BRIEFLY ON:** **5x2=10**

- 8) Reactive hyperemia**
- 9) Distribution of body fluids**
- 10) Cause for production of heart sounds**
- 11) Define Cyanosis. Where it is seen?**
- 12) Intra pleural pressure**

- - -

504-A

**M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2012**  
**FIRST M.B.B.S. EXAMINATION**  
**PHYSIOLOGY**  
**PAPER-II**

**Time : 2 ½ Hours**

**Max. Marks : 50**

## **Answer all questions**

73) Name the anterior pituitary hormones. What are the functions and mechanism of action of growth hormone?

$$4+4+2=10$$

**74) Draw a labelled diagram of corticospinal tracts. Explain the effect of decerebration on their function.**

$$5+5=10$$

## **WRITE SHORT NOTES ON:**

$$5 \times 4 = 20$$

## **75) Types of muscle fibers**

## **76) Thyroid function tests**

## **77) Functions of thalamus**

## **78) Neuromuscular junction**

### **79) Signs of ovulation**

## **WRITE BRIEFLY ON:**

$$5 \times 2 = 10$$

**80) Mention the functions of middle ear.**

**81) Name the Contraceptive methods in females**

### **82) Taste buds**

## **83) Aphasia – Definition and types**

#### **84) Milk ejection reflex**

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500-A

**M.B.B.S. DEGREE EXAMINATION – JULY, 2013**  
**FIRST M.B.B.S. EXAMINATION**  
**BIOCHEMISTRY**  
**PAPER-I**

## **Time : 2 ½ Hours**

**Max. Marks: 50**

**Answer all questions**

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- 73) Explain the reactions of citric acid cycle emphasizing energy yield and amphibolic use of intermediates. Add a note on the energetics.** **6+4=10**
- 74) Describe the ketogenesis pathway and explain its significance. What are the tests done to detect the presence of ketone bodies in urine?** **5+4+1=10**

**WRITE SHORT NOTES ON:** **5x4=20**

- 75) Both cellulose and starch are homopolysaccharides of glucose yet humans digest only starch. Explain why?**
- 76) Porphyrias**
- 77) Type I glycogen storage disease.**
- 78) Serum lipoproteins**
- 79) High energy compounds**

**WRITE BRIEFLY ON:** **5x2=10**

- 80) Explain why Thiamine deficiency is one of the causes for lactic acidosis**
- 81) Effect of temperature on enzyme activity**
- 82) Sources and deficiency manifestations of Vit.A**
- 83) Proenzymes**
- 84) Name different types of  $\alpha$ -Thalassemias**

**M.B.B.S. DEGREE EXAMINATION – JULY, 2013**  
**FIRST M.B.B.S. EXAMINATION**  
**BIOCHEMISTRY**  
**PAPER-II**

**Time : 2 1/2 Hours****Max. Marks : 50****Answer all questions**

- 73) With the help of a diagram, describe the process of transcription. Add a note on post transcriptional modifications.** **6+4=10**
- 74) Enumerate kidney function tests and liver function tests. Write in detail about one kidney function test and one liver function test.** **2+2+3+3=10**
- WRITE SHORT NOTES ON:** **5x4=20**
- 75) Explain the absorption, transport and storage of dietary iron in the body.**
- 76) Requirement, sources and biochemical functions of Selenium.**
- 77) Describe Polymerase Chain Reaction (PCR) with diagram and list out two uses of it.**
- 78) Compare and contrast (1 similarity and 2 differences) DNA polymerase and RNA polymerase**
- 79) Androgens – Biosynthesis and Physiological and Biochemical functions.** **5x2=10**
- WRITE BRIEFLY ON:**
- 80) Chemical Carcinogens**
- 81) Biochemical functions of oxytocin**
- 82) How oxalates in diet inhibit absorption of iron and calcium ?**
- 83) Define Osmolarity and Osmolality**
- 84) Serum alpha fetoprotein and carcinoembryonic antigen**

- - -

**M.B.B.S. DEGREE EXAMINATION – JULY, 2013**  
**FIRST M.B.B.S. EXAMINATION**  
**ANATOMY**  
**PAPER-I**

**Time : 2 1/2 Hours****Max. Marks : 50****Note: Answer all questions****Illustrate your answers with suitable diagrams**

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**73) Classify white matter of cerebrum. Write in detail about corpus callosum.** **3+7=10**

**74) Describe the ulnar nerve under the following headings** **2+3+3+2=10**  
**a) Course**  
**b) Relations**  
**c) Branches**  
**d) Applied anatomy**

**WRITE SHORT NOTES ON:** **5x4=20**

**75) Ligamentum denticulatum**

**76) Maxillary Air Sinus**

**77) Development of Hypophysis Cerebri**

**78) Microscopic Anatomy of Hyaline Cartilage**

**79) Nasopharynx**

**WRITE BRIEFLY ON:** **5x2=10**

**80) Chorion**

**81) Artery of cerebral Hemorrhage**

**82) Prochordal plate**

**83) Actions of Thenar muscles**

**84) Corpora Quadrigemina**

- - -

**M.B.B.S. DEGREE EXAMINATION – JULY, 2013**  
**FIRST M.B.B.S. EXAMINATION**  
**ANATOMY**  
**PAPER-II**

**Time : 2 ½ Hours**

**Max. Marks: 50**

**Note: Answer all questions**

**Illustrate your answers with suitable diagrams**

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- |   |                 |
|---|-----------------|
| <b>73) Describe the arches of foot and its applied Anatomy</b>  | <b>6+4=10</b>   |
| <b>74) Describe the visceral surface of the liver.</b><br><b>Add a note on the development and microscopic appearance of liver.</b> | <b>4+3+3=10</b> |

**WRITE SHORT NOTES ON:** **5x4=20**

- 75) Coronary Sinus**
- 76) Internal Mammary Artery.**
- 77) Development of Pancreas**
- 78) BARR - BODY**
- 79) Relations and Histology of Ovaries**

**WRITE BRIEFLY ON:** **5x2=10**

- 80) Pleural recesses**
- 81) Foramen of Winslow**
- 82) Cruciate anastomosis**
- 83) Tensor Fascia Lata**
- 84) Sinuses of Pericardium**

- - -

**M.B.B.S. DEGREE EXAMINATION – JULY, 2013**  
**FIRST M.B.B.S. EXAMINATION**  
**PHYSIOLOGY**  
**PAPER-I**

**Time : 2 1/2 Hours**

**Max. Marks: 50**

**Answer all questions**

---

- 51) Name the blood group systems. Explain basis for its classification. Add a note on its clinical importance.** **3+4+3=10**
- 2) Define cardiac out put, mention the factors affecting cardiac out put, describe one method of measurement of cardiac out put.** **1+4+5=10**

**WRITE SHORT NOTES ON:** **5x4=20**

- 3) Properties of cardiac muscle**
- 4) Composition and functions of Gastric Juice.**
- 5) Juxta medullary nephron**
- 6) Heat loss mechanism**
- 7) Secondary active transport**

**WRITE BRIEFLY ON:** **5x2=10**

- 8) Land Steiner's Law**
- 9) P.R Interval**
- 10) Artificial respiration**
- 11) Control of Salivary Secretion**
- 12) Respiratory distress syndrome**

- - -

**504-A**

**M.B.B.S. DEGREE EXAMINATION – JULY, 2013  
FIRST M.B.B.S. EXAMINATION  
PHYSIOLOGY  
PAPER-II**

**Time : 2 1/2 Hours**

**Max. Marks : 50**

**Answer all questions**

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- 85) Define pain. Describe the pathway for pain sensation with neat diagram. Explain referred pain.** **1+6+3=10**
- 86) Name the hormones produced by supra renal glands. Describe the secretion regulation and action of any one of them.** **2+8=10**

**WRITE SHORT NOTES ON:** **5x4=20**

- 87) Colour blindness**
- 88) Hyperglycemic hormones**
- 89) Excitation contraction coupling**
- 90) Spermatogenesis**
- 91) Contraceptive methods in females**

**WRITE BRIEFLY ON:** **5x2=10**

- 92) Tests for hearing**
- 93) REM sleep**
- 94) Corpus luteum**
- 95) Myopia**
- 96) Cretinism**

- - -

**500-A**

**M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2013  
FIRST M.B.B.S. EXAMINATION  
BIOCHEMISTRY  
PAPER-I**

**Time : 2 1/2 Hours**

**Max. Marks: 50**

**Answer all questions**

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- 85) Explain the components of electron transport chain and the flow of electrons through them. Add a note on inhibitors and uncouplers.**  $3+3+2+2=10$
- 86) Define 'glycogenesis' and 'glycogenolysis'. Describe glycogenesis in detail. How is it regulated?**  $2+5+3=10$

**WRITE SHORT NOTES ON:**  $5 \times 4 = 20$

- 87) Sickle cell haemoglobin**
- 88) Therapeutic enzymes**
- 89) Functions of cholesterol**
- 90) Wald's Visual cycle**
- 91) Biochemical functions of Vitamin B12**

**WRITE BRIEFLY ON:**  $5 \times 2 = 10$

- 92) Metalloenzymes**
- 93) Acute intermittent porphyria**
- 94) Pyruvate dehydrogenase complex**
- 95) Liposomes**
- 96) Specific dynamic action**

**M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2013**  
**FIRST M.B.B.S. EXAMINATION**  
**BIOCHEMISTRY**  
**PAPER-II**

**Time : 2 1/2 Hours****Max. Marks : 50****Answer all questions**

- 85) Explain how recombinant DNA is formed. What are the applications of recombinant DNA technology in medicine?      5+5=10**
- 86) Describe the formation of uric acid. What is the normal serum uric acid level? Explain the disease associated with its accumulation. Write the ways for lowering serum uric acid level.      4+1+3+2=10**

**WRITE SHORT NOTES ON:****5x4=20**

- 87) Urea cycle**
- 88) Nucleosomes**
- 89) Structure of collagen**
- 90) Fluid mosaic model**

- 91) Functions of albumin in the body.**

**WRITE BRIEFLY ON:****5x2=10**

- 92) Functions of Thyroid stimulating hormone**
- 93) Reverse transcriptase**
- 94) Biochemical functions of zinc in the body**
- 95) Oncogenes**
- 96) Biochemical functions of estrogens**

- - -

**M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2013  
FIRST M.B.B.S. EXAMINATION  
ANATOMY  
PAPER-I**

**Time : 2 ½ Hours**

**Max. Marks : 50**

**Note: Answer all questions**

**Illustrate your answers with suitable diagrams**

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**85) Describe the scalp under the following headings.                                    3+2+3+2=10**

- A) Layers
- B) Blood supply
- C) Nerve supply
- D) Applied Anatomy

**86) Describe the shoulder joint under the following headings.                                    2+2+1+3+2=10**

- A) Type and articular surfaces
- B) Ligaments
- C) Relations
- D) Movements with muscles involved
- E) Applied anatomy

**WRITE SHORT NOTES ON:**

**5x4=20**

**87) Axillary nerve**

**88) Contents, boundaries and applied anatomy of middle ear.**

**89) Development and anomalies of the palate**

**90) External features and applied anatomy cerebellum**

**91) Internal Capsule**

**WRITE BRIEFLY ON:**

**5x2=10**

**92) Mention four branches of external carotid artery**

**93) Implantation**

**94) Osteocytes**

**95) Visual cortex**

**96) Boundaries of digastric triangle**

**M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2013**  
**FIRST M.B.B.S. EXAMINATION**  
**ANATOMY**  
**PAPER-II**

**Time : 2 1/2 Hours****Max. Marks: 50****Note: Answer all questions****Illustrate your answers with suitable diagrams**

- 85) Describe the Anal canal under the following headings:** **1+3+4+2=10**

- A) Situation and extent
- B) Interior
- C) Musculature
- D) Applied Anatomy

- 86) Describe the bronchopulmonary segments under the following headings:** **3+5+2=10**
- A) Definition and general features
  - B) Bronchopulmonary segments of the right lung
  - C) Applied Anatomy

**WRITE SHORT NOTES ON:** **5x4=20**

- 87) Common bile duct – Course and relations**
- 88) Histology of the pancreas.**
- 89) Development and anomalies of the kidney**
- 90) Psoas major muscle – Origin, insertion and actions**
- 91) Common peroneal nerve – Course, branches and applied anatomy**

**WRITE BRIEFLY ON:** **5x2=10**

- 92) Meiosis**
- 93) Classification of bones**
- 94) Turner's syndrome**
- 95) Arterial supply of the suprarenal gland**
- 96) Mention supports of the uterus**

**M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2013**  
**FIRST M.B.B.S. EXAMINATION**  
**PHYSIOLOGY**  
**PAPER-I**

**Time : 2 1/2 Hours**

**Max. Marks: 50**

**Answer all questions**

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- 52) Name the clotting factors. With the help of a schematic diagram, explain the mechanism of blood coagulation. Add a note on any two important bleeding disorders.** **3+4+3=10**
- 2) Describe the composition, functions and regulation of secretion of pancreatic juice.** **2+4+4=10**

**WRITE SHORT NOTES ON:** **5x4=20**

- 3) Movements of small intestine**
- 4) Second Heart Sound**
- 5) Poiseuille's Hagen formula in circulation**
- 6) Juxtaglomerular apparatus**
- 7) Pace maker potential**

**WRITE BRIEFLY ON:** **5x2=10**

- 8) Functions of lymph**
- 9) Secondary active transport**
- 10) Chronic effects of hypcapnia**
- 11) Jugular venous pulse**
- 12) Hypoxia – Definition and types**

- - -

**504-A**

**M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2013  
FIRST M.B.B.S. EXAMINATION  
PHYSIOLOGY  
PAPER-II**

**Time : 2 1/2 Hours**

**Max. Marks : 50**

**Answer all questions**

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- 97) Draw a labelled diagram of muscle spindle. Explain the effects of stretch and stimulation of gamma motor neuron on spindle activity.** **2+8=10**
- 98) Discuss the hormonal, ovarian and uterine changes during menstrual cycle.** **2+4+4=10**

**WRITE SHORT NOTES ON:**

**5x4=20**

- 99) Refractive errors in eye and their correction**
- 100) Hormones regulating plasma calcium level**
- 101) Seminal fluid**
- 102) Milk ejection reflex and parturition reflex**
- 103) Diseases of basal ganglia**

**WRITE BRIEFLY ON:**

**5x2=10**

- 104) Nerve action potential**
- 105) Anti-inflammatory effect of glucocorticoids**
- 106) Features of hypothyroidism in adults**
- 107) Two common sleep disorders**
- 108) Tympanic reflex**

- - -

**500-A**

**M.B.B.S. DEGREE EXAMINATION – JULY/AUGUST, 2014  
FIRST M.B.B.S. EXAMINATION  
BIOCHEMISTRY  
PAPER-I**

**Time : 2 1/2 Hours**

**50**

**Max. Marks:**

## Answer all questions

- 97) What are the different types of lipoproteins? Discuss their role in cholesterol transport. 5+5=10

98) Describe the tricarboxylic acid cycle and explain its significance. Add a note on the energetics. 3+3+4=10

**WRITE SHORT NOTES ON:** 5x4=20

- 99) Porphyrias
  - 100) Competitive inhibition with examples.
  - 101) Calorific value.
  - 102) Detoxification by conjugation.
  - 103) Functions of Vitamin C.

**WRITE BRIEFLY ON:** \_\_\_\_\_ **5x2=10**

- 104) Essential fatty acids.
  - 105) Sickle cell anemia.
  - 106) Dietary fibre and its role.
  - 107) Allosteric enzymes.
  - 108) Define Epimers. Name two Epimers.

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M.B.B.S. DEGREE EXAMINATION – JULY/AUGUST, 2014  
FIRST M.B.B.S. EXAMINATION  
BIOCHEMISTRY  
PAPER-II

Time : 2 ½ Hours  
50

Max. Marks :

Answer all questions

- 
- 97) What are the types of DNA? Describe the structure of B-DNA. How is DNA organized in the nucleolus? 3+3+4=10

- 98) Describe the various biochemical liver function tests. 5+5=10  
Explain the biochemical findings in different types of jaundice.

WRITE SHORT NOTES ON: 5x4=20

- 99) Role of lungs in maintenance of body pH.

- 100) Creatinine clearance

- 101) Polymerase chain reaction

- 102) Role of parathormone in calcium homeostasis

- 103) Tumor markers

WRITE BRIEFLY ON: 5x2=10

- 104) Anion gap

- 105) Mention four biochemical functions of zinc

- 106) Wobble hypothesis

- 107) Oncogenes

- 108) Maple syrup urine

**M.B.B.S. DEGREE EXAMINATION – JULY/AUGUST, 2014**  
**FIRST M.B.B.S. EXAMINATION**  
**ANATOMY**  
**PAPER-I**

Time : 2 ½ Hours

### **Max. Marks**

: 50

**Note:** Answer all questions

Illustrate your answers with suitable diagrams

- 97) Describe the thyroid gland under the following headings: 1+1+4+2+2=10

  - E) Parts
  - F) Capsule
  - G) Relations
  - H) Blood supply
  - I) Applied anatomy

98) Describe ulnar nerve in the hand under the following headings: 4+2+2+2=10

  - F) Course and relations
  - G) Branches
  - H) Distribution
  - I) Applied anatomy

## **WRITE SHORT NOTES ON:**

$$5 \times 4 = 20$$

- 99) Inferior horn of the lateral ventricle
  - 100) Geniculate bodies
  - 101) Mesodermal derivatives of the first arch
  - 102) Histology of Lymph node
  - 103) Circle of Willis

**WRITE BRIEFLY ON:**

$$5 \times 2 = 10$$

- 104] Nerve supply and actions of the cricothyroid muscle
  - 105] Median cubital vein
  - 106] Conus medullaris
  - 107] Applied anatomy of scaphoid bone
  - 108] Coracoid process of the scapula



M.B.B.S. DEGREE EXAMINATION – JULY/AUGUST, 2014  
 FIRST M.B.B.S. EXAMINATION  
 ANATOMY  
 PAPER-II

Time : 2 ½ Hours Max. Marks: 50

Note: Answer all questions

Illustrate your answers with suitable diagrams

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97) Describe the right atrium of the heart under the following headings:  $2+1+5+2=10$

- E) External features
- F) Openings
- G) Interior
- H) Development

98) Describe the stomach under the following headings:  $2+4+2+2=10$

- D) Parts
- E) Stomach bed
- F) Arterial supply
- G) Lymphatic drainage

WRITE SHORT NOTES ON:  $5 \times 4 = 20$

99) Cruciate anastomosis

100 Tendo calcaneus

101 Klinefelter syndrome

102 Microscopic structure of ovary

103 Contents of the inguinal canal

WRITE BRIEFLY ON:  $5 \times 2 = 10$

104 Development of urinary bladder

105 Movements of ankle joint

106 Boundaries and contents of adductor canal

107 Cervical pleura

108 Branches of inferior mesenteric artery

- - -

M.B.B.S. DEGREE EXAMINATION – JULY/AUGUST, 2014  
FIRST M.B.B.S. EXAMINATION  
PHYSIOLOGY  
PAPER-I

Time : 2 ½ Hours

Max. Marks:

50

Note : Answer all questions

Give diagrammatic representation wherever possible

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- 53) Define mean arterial blood pressure. Describe the various factors regulating it. 2+8=10
- 2) Describe the role of counter-current mechanism in kidney function. 10

WRITE SHORT NOTES ON: 5x4=20

- 3) Describe the role of T-lymphocytes in immunity.
- 4) Outline the steps of erythropoiesis. Explain the essential factors required for it.
- 5) Pharyngeal phase of deglutition.
- 6) Digestion and absorption of fats.
- 7) Haldane effect.

WRITE BRIEFLY ON: 5x2=10

- 8) Define facilitated diffusion. Describe factors affecting it.
- 9) Hypovolemic shock.
- 10) Cyanosis.
- 11) Physiological dead space.
- 12) Vitamin K dependant clotting factors.

- - -

504-A

M.B.B.S. DEGREE EXAMINATION – JULY/AUGUST, 2014  
FIRST M.B.B.S. EXAMINATION  
PHYSIOLOGY  
PAPER-II

Time : 2 ½ Hours Max. Marks  
: 50  
Note: Answer all questions  
Give diagrammatic representation wherever possible

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109) Describe the connections, functions of basal ganglia. Add 3+3+4=10  
a note on Parkinsonism.

110) Describe the actions and regulation of cortisol. 6+4=10

WRITE SHORT NOTES ON: 5x4=20

111) Define hypermetropia. Explain the method of its  
correction.

112) Role of cochlea in pitch discrimination.

113) Anterolateral sensory pathway and its functions.

114) Actions of estrogen.

115) Postural hypotension.

WRITE BRIEFLY ON: 5x2=10

116) Neuromuscular blocking agents.

117) Sex determination.

118) Role of Sertoli cells.

119) Motor aphasia.

120) Anosmia.

- - -

500-A

M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2014  
FIRST M.B.B.S. EXAMINATION  
BIOCHEMISTRY  
PAPER-I

Time : 2 ½ Hours

Max. Marks:

50

Note: Answer all questions

Draw diagrammatic representation wherever necessary.

- 109) Describe the process of  $\beta$  (beta) – oxidation of fatty acids.

7+3=10

Add a note on the energetics of the pathway.

- 110) A 6 year boy was taken to the hospital by his mother with complaints of decreased vision in the night. The doctor suspected a possible vitamin A deficiency. Describe in detail the sources, RDA, functions and deficiency manifestation of the deficient nutrient. What other clinical features, the doctor has to look for in this case and what advice should be given?

1+1+3+3+2=10

WRITE SHORT NOTES ON:

5x4=20

- 111) Describe briefly the hormonal regulation of blood glucose levels.

- 112) Draw a plot of Competitive enzyme inhibition. Give 2 examples of competitive inhibitors.

- 113) Briefly explain the following:

- i) Specific Dynamic Action
- ii) Glycemic index

- 114) Describe the clinical significance of the following enzymes:

- i) LDH
- ii) Alkaline phosphatase
- iii) Creatine kinase
- iv) Amylase
- v) Alanine transaminase

- 115) Give an outline of the electron transport chain including ATP generating sites

WRITE BRIEFLY ON:

5x2=10

- 116) Absolute specificity enzymes

- 117) Altered CNS behavior in patients with advanced liver disease.

- 118) Ethanol is administered in patients with methanol poisoning

- 119) Mention functions of Hemoglobin

- 120) Lactose intolerance

**M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2014**  
**FIRST M.B.B.S. EXAMINATION**  
**BIOCHEMISTRY**  
**PAPER-II**

Time : 2 ½ Hours

Max. Marks :

50

Note: Answer all questions

Draw diagrammatic representation wherever necessary.

- 109) A 15 year old boy complained of swelling and pain in the distal phalangeal joints. Blood investigation showed the following results.      1+1+4+4  
=10

Blood urea : 15 mg%

Serum uric acid : 16 mg%

On diagnosing the pathology, the physician decided to treat patient with allopurinol

- i) What is your probable diagnosis in the above patient?
- ii) Which 2 other blood investigations would you suggest?
- iii) Comment on the serum uric acid level and explain the cause of pain in joints.
- iv) What is the biochemical explanation for the treatment given in the above patient?

- 110) Discuss the metabolism of glycine under the following headings.      3+3+4=10

- i) Synthesis
- ii) Catabolism
- iii) Specialized compounds synthesized

WRITE SHORT NOTES ON:

- 111) Explain the absorption, transport and storage of dietary iron in the body.      5x4=20

- 112) Give an account of post transcription modifications

- 113) Describe PCR with diagram and list out two uses of it.

- 114) Compare and contrast (1 similarity and 2 differences)  
DNA polymerase and RNA polymerase

- 115) Compare and contrast (1 similarity and 2 differences)  
prehepatic and post hepatic jaundice

WRITE BRIEFLY ON:

- 116) Azaserine is used as an anticancer agent  
117) Wilson's disease      5x2=10

- 118) Oxalates in diet inhibit absorption of iron and calcium
  - 119) Metabolic acidosis
  - 120) Serum alpha fetoprotein and carcinoembryonic antigen

501-A

**M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2014  
FIRST M.B.B.S. EXAMINATION  
ANATOMY  
PAPER-I**

Time : 2 ½ Hours

### **Max. Marks**

: 50

**Note:** Answer all questions

Illustrate your answers with suitable diagrams

- 109) Describe the Axillary artery under the following headings      2+4+2+2=10

  - J) Course
  - K) Relations
  - L) Branches
  - M) Applied aspects

110) Describe the internal capsule under the following heads      1+2+3+2+2=10

  - J) Parts
  - K) Relations
  - L) Fiber components
  - M) Arterial supply
  - N) Applied anatomy

## **WRITE SHORT NOTES ON:**

$$5 \times 4 = 20$$

- 111] Tentorium cerebelli
  - 112] Anatomical snuff box
  - 113] Visual cortex
  - 114] Histology of skeletal muscle
  - 115] Development of the tongue

**WRITE BRIEFLY ON:**

$$5 \times 2 = 10$$

- ## 116' Piriform recess

- 117) Formation and distribution of ansa cervicalis
- 118) List the branches of medial cord of brachial plexus
- 119) Name the muscles forming rotator cuff
- 120) Name any four Carpal Bones

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**M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2014  
FIRST M.B.B.S. EXAMINATION  
ANATOMY  
PAPER-II**

**Time : 2 ½ Hours** **Max. Marks: 50**

Note: Answer all questions

Illustrate your answers with suitable diagrams

- 109 Describe the arterial supply, venous drainage and nerve supply of the heart.  $4+3+3=10$

110 Describe the Uterus under the following headings:  $1+4+3+2=10$

  - H) Normal position
  - I) Parts with relations
  - J) Supports
  - K) Embryologic development

**WRITE SHORT NOTES ON:** 5x4=20

- 111 Lesser omentum
  - 112 Histology of the kidney
  - 113 Deep peroneal nerve
  - 114 Cruciate ligaments of the knee joint
  - 115 Portacaval anastomoses

**WRITE BRIEFLY ON:**  $5 \times 2 = 10$

- 116 Sex chromosomes
  - 117 Down's syndrome
  - 118 Costodiaphragmatic recess of pleura
  - 119 Embryologic development of the suprarenal gland
  - 120 Cystic artery

- - -

503-A

**M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2014**  
**FIRST M.B.B.S. EXAMINATION**  
**PHYSIOLOGY**  
**PAPER-I**

Time : 2 ½ Hours

**Max. Marks:**

50

**Note : Answer all questions**

Give diagrammatic representation wherever possible

- 54) Describe the following aspects of coronary blood flow: 3+3+4=10  
A) Phasic flow  
B) Metabolic regulation  
C) Evidences of myocardial ischemia

2) Describe the uptake, transport and delivery of oxygen. 2+6+2=10

## **WRITE SHORT NOTES ON:**

- 3) Abnormalities of hemoglobin synthesis
  - 4) Mismatched blood transfusion
  - 5) Role of esophageal sphincters
  - 6) Voluntary micturition
  - 7) Creatinine clearance

**WRITE BRIEFLY ON:**

- 8) Loop diuretics
  - 9) Sinus arrhythmia
  - 10) Transcellular fluid
  - 11) Role of gastrin
  - 12) Define active transport. Write the factors affecting it giving examples.

- - -

504-A

M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2014  
FIRST M.B.B.S. EXAMINATION  
PHYSIOLOGY  
PAPER-II

Time : 2 ½ Hours Max. Marks  
: 50  
Note: Answer all questions  
Give diagrammatic representation wherever possible

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121) Describe the connections and functions of prefrontal lobe. 6+4=10  
List the effects of its lesion.

122) Describe the hormonal regulation of calcium metabolism 6+4=10

WRITE SHORT NOTES ON: 5x4=20

123) Visual pathway and effects of its lesions at various levels

124) Cochlear microphonics

125) Pyramidal tract and effect of its lesion at internal capsule

126) Acromegaly

127) Puberty

WRITE BRIEFLY ON: 5x2=10

128) Rigor mortis

129) Principle of immunological test of pregnancy

130) Functions of placenta

131) Dark adaptations

132) Physiological importance of olfaction

- - -

500-A

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008

M.B.B.S. DEGREE EXAMINATION –AUGUST, 2015

FIRST M.B.B.S. EXAMINATION

BIOCHEMISTRY

PAPER-I

Time : 2 ½ Hours

Max. Marks:

50

Answer all questions

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121 Write the glycolysis pathway in red blood cells. Add a note on 2,3 Bis phosphoglycerate formation and its importance. 6+4=10

122 Give an account of sources, chemistry, biochemical functions, deficiency diseases and daily requirement of Vitamin D. 2+2+2+2+2=10

WRITE SHORT NOTES ON: 5x4=20

123 Structure and classification of lipoproteins

124 Factors affecting enzyme activity

125 Fatty Liver

126 Functions and deficiency manifestations of Thiamine

127 Absorption of Monosaccharides

WRITE BRIEFLY ON: 5x2=10

128 List the primary and secondary bile acids

129 Calorific value

130 Write any four heteropolysaccharides

131 Steatorrhea

132 Define Xenobiotics and give two examples

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500-B

DR NTR UNIVERSITY OF HEALTH SCIENCES :: VIJAYAWADA – 520 008

**M.B.B.S. DEGREE EXAMINATION – AUGUST, 2015**  
**FIRST M.B.B.S. EXAMINATION**  
**BIOCHEMISTRY**  
**PAPER-II**

Time : 2 ½ Hours

**Max. Marks :**

50

Note: Answer all questions

Draw diagrammatic representation wherever necessary.

- 121) Write in detail about urea cycle. Add a note on urea cycle disorders 6+4=10

122) Write in detail about renal function tests 10

## WRITE SHORT NOTES ON:

- 123) Respiratory acidosis
  - 124) Lac operon
  - 125) Primary and secondary structures of proteins
  - 126) Alkaptonuria
  - 127) Functions of iodine and fluoride

## **WRITE BRIEFLY ON:**

- 128) Post transcriptional modifications
  - 129) Isoelectric p<sup>H</sup>
  - 130) Active methionine
  - 131) Most commonly used tumor markers

501-A

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008  
M.B.B.S. DEGREE EXAMINATION –AUGUST, 2015  
FIRST M.B.B.S. EXAMINATION  
ANATOMY  
PAPER-I

Time : 2 ½ Hours Max. Marks  
: 50  
Note: Answer all questions  
Illustrate your answers with suitable diagrams

- 
- 121] Describe the tongue under the following headings: 1+3+3+3=10  
A) Parts  
B) Features of the dorsum  
C) Nerve supply  
D) Development
- 122] Describe the superolateral surface of the cerebrum under following headings: 4+2+2+2=10  
A) Sulci  
B) Gyri  
C) Functional areas  
D) Applied anatomy

WRITE SHORT NOTES ON: 5x4=20

- 123] Radial nerve in the spiral groove  
124] Interossei muscles of the hand  
125] Oblique muscles of the eyeball  
126] Histology of a compact bone  
127] Development of the pituitary gland

WRITE BRIEFLY ON: 5x2=10

- 128] Give nerve supply and actions of biceps brachii muscle  
129] Name the branches of the third part of axillary artery  
130] Name the structures in the lateral wall of cavernous sinus

131] What are the parts of the corpus callosum?

132] Name the structures inside the parotid gland

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502-A

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008

M.B.B.S. DEGREE EXAMINATION – AUGUST, 2015

FIRST M.B.B.S. EXAMINATION

ANATOMY

PAPER-II

Time : 2 ½ Hours

Max. Marks: 50

Note: Answer all questions

Illustrate your answers with suitable diagrams

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121 Describe stomach under the following headings:

2+3+3+2=10

- I) Ligaments related
- J) Blood supply
- K) Lymphatic drainage
- L) Applied aspects

122 Describe the Sciatic Nerve under the following headings: 1+2+2+3+2=10

- L) Root value
- M) Course
- N) Relations
- O) Distribution
- P) Applied Anatomy

WRITE SHORT NOTES ON:

5x4=20

123 Vermiform appendix

124 Posterior relations of left the kidney

125 Right coronary artery

126 Barr bodies

127 Histology of the testis

WRITE BRIEFLY ON:

5x2=10

128 Tibial collateral ligament

129 Development of the pancreas

130 Ligaments of the spleen

131 Boundaries of the transverse sinus of the pericardium

132 Structures passing through major openings of the  
diaphragm

- - -

Time : 2 ½ Hours

Max. Marks: 50

Note : Answer all questions

Give diagrammatic representation wherever possible

- 55) Define Cardiac output? Describe the various factors regulating cardiac output. 2+8=10
- 2) Describe the mechanism of Respiration. Define lung compliance. Mention any two conditions which reduce lung compliance. 5+3+2=10

WRITE SHORT NOTES ON: 5x4=20

- 3) Define 'renal clearance'. What do PAH and inulin clearance indicate about renal function.
- 4) Describe the fate of hemoglobin of the damaged RBCs following hemolysis.
- 5) Outline intrinsic pathway of clotting. Add a note on anticoagulants.
- 6) Enterohepatic circulation and its physiological importance.
- 7) Functions, hormonal regulation of exocrine pancreatic secretion.

WRITE BRIEFLY ON: 5x2=10

- 8) Define diffusion. Describe any four factors affecting diffusion in terms of Fick's Law.
- 9) Cause and normal duration of P-R interval
- 10) Draw a diagram for innervation of the urinary bladder.
- 11) Explain the proximal tubular handling of Na<sup>+</sup>.
- 12) Define ESR and mention its normal value. List any two factors that influence it

504-A

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008

M.B.B.S. DEGREE EXAMINATION – AUGUST, 2015

FIRST M.B.B.S. EXAMINATION

PHYSIOLOGY

PAPER-II

Time : 2 ½ Hours

Max. Marks

: 50

Note: Answer all questions

Give diagrammatic representation wherever possible

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- 1) Describe the connections, functions and effects of  $4+3+3=10$  cerebellar dysfunction.
- 2) Describe the actions and regulation of insulin. Explain the  $5+3+2=10$  basis of polyphagia in diabetes mellitus.

WRITE SHORT NOTES ON:

$5 \times 4 = 20$

- 3) Define myopia. Explain the method of its correction.
- 4) Functions of middle ear
- 5) Dorsal column-medial lemniscus pathway and its functions
- 6) Features of cretinism and its physiological basis
- 7) Actions of progesterone

WRITE BRIEFLY ON:

$5 \times 2 = 10$

- 8) Resting membrane potential
- 9) Factors influencing spermatogenesis
- 10) Indicators of ovulation

- 11) Ageusia
  - 12) Olfactory pathway

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500-A

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008  
M.B.B.S. DEGREE EXAMINATION – DECEMBER, 2015  
FIRST M.B.B.S. EXAMINATION  
BIOCHEMISTRY  
PAPER-I

Time : 2 ½ Hours Max. Marks: 50

## Answer all questions

- 133) Describe the sources, dietary requirements, biochemical functions and deficiency manifestations of Vitamin A. 4+4+2=10

134) Describe the pathway of Ketone bodies synthesis and utilization. Add a note on ketoacidosis. 6+4=10

**WRITE SHORT NOTES ON:** 5x4=20

- 135) Lactose intolerance
  - 136) Isoenzymes
  - 137) Significance of Hexose Monophosphate Pathway  
(HMP shunt)

(HMP shunt)

- 138) Jaundice  
139) Inhibitors of Respiratory chain

WRITE BRIEFLY ON:

- ## 140) Functions of essential fatty acids

- 141) Polysaccharides
  - 142) Methemoglobin
  - 143) Causes and clinical symptoms of Kwashiorkor
  - 144) Cori cycle.

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500-B

**DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008**  
**M.B.B.S. DEGREE EXAMINATION – DECEMBER, 2015**  
**FIRST M.B.B.S. EXAMINATION**  
**BIOCHEMISTRY**  
**PAPER-II**

Time : 2 ½ Hours  
50

**Max. Marks :**

## Answer all questions

- 132) Describe in detail the biochemical functions of calcium in human body. Discuss the hormonal regulation of plasma calcium. 5+5=10

- 133) Describe the synthesis of DNA in detail with suitable diagram. 10

## **WRITE SHORT NOTES ON:**

$$5 \times 4 = 20$$

- 134) tRNA structure and function
  - 135) Structure and classes of Immunoglobulins
  - 136) Outline the steps of synthesis of urea
  - 137) Blood buffers

138) Renal clearance tests

WRITE BRIEFLY ON:

5x2=10

139) Essential amino acids

140) What are oncogenes and give two examples

141) Write four causes for metabolic acidosis

142) Maple syrup urine disease

143) Mechanisms of transport across biological membranes

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**DR NTR UNIVERSITY OF HEALTH SCIENCES :: VIJAYAWADA – 520 008**  
**M.B.B.S. DEGREE EXAMINATION – DECEMBER, 2015**  
**FIRST M.B.B.S. EXAMINATION**  
**ANATOMY**  
**PAPER-I**

**Time : 2 ½ Hours** **Max. Marks : 50**

. 50  
Notes

Note. Answer all questions  
Illustrate your answers

Illustrate your answers with suitable diagrams

- 133) Describe the shoulder joint under the following headings 2+3+3+2=10

- E) Classification and articulating bones
  - F) Ligaments
  - G) Movements
  - H) Applied Anatomy

- 134) Describe the Cavernous sinus under the following headings: 2+4+2+2=10

- E) Situation and extent
  - F) Relations
  - G) Tributaries
  - H) Applied anatomy

## **WRITE SHORT NOTES ON:**

$$5 \times 4 = 20$$

- ### 135 Facial artery

- ## 136 Histology of tongue

- ## 137 Development of the thyroid and parathyroid glands

- 138 III ventricle of the brain

- 139) Brachioradialis muscle – origin, insertion, nerve supply and actions

## **WRITE BRIEFLY ON:**

$$5 \times 2 = 10$$

- ## 140 Derivatives of the I pharyngeal pouch

- 141' Blastocyst

- #### **142** Mention intracerebellar nuclei

- ### 143' Medial geniculate body (nucleus)

144] Superficial branch of the ulnar nerve

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502-A

DR NTR UNIVERSITY OF HEALTH SCIENCES :: VIJAYAWADA – 520 008

M.B.B.S. DEGREE EXAMINATION – DECEMBER, 2015

FIRST M.B.B.S. EXAMINATION

ANATOMY

PAPER-II

Time : 2 ½ Hours

Max. Marks: 50

Note: Answer all questions

Illustrate your answers with suitable diagrams

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13<sup>3</sup> Describe the anal canal under the following heads: 1+5+2+2=10

- A) Parts
- B) Internal structure
- C) Blood supply
- D) Applied anatomy

13<sup>4</sup> Describe the gluteus maximus muscle under the following 2+2+2+2+2=10 headings:

- A) Origin
- B) Insertion
- C) Nerve Supply
- D) Actions
- E) Applied anatomy

WRITE SHORT NOTES ON:

5x4=20

13<sup>5</sup> Gall bladder

13<sup>6</sup> Histology of the supra renal gland

13<sup>7</sup> Prostatic urethra

13<sup>8</sup> Downs Syndrome

13<sup>9</sup> Cruciate ligaments of the knee joint

WRITE BRIEFLY ON:

5x2=10

14<sup>0</sup> Derivatives of the midgut

14<sup>1</sup> Costodiaphragmatic recess of pleura

14<sup>2</sup> Deep inguinal ring

143 Name the branches of femoral artery

144 Perineal body

- - -

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DR NTR UNIVERSITY OF HEALTH SCIENCES :: VIJAYAWADA – 520 008

M.B.B.S. DEGREE EXAMINATION – DECEMBER, 2015

FIRST M.B.B.S. EXAMINATION

PHYSIOLOGY

PAPER-I

Time : 2 ½ Hours

Max. Marks:

50

Note : Answer all questions

Give diagrammatic representation wherever possible

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- 56) Draw a neat diagram showing the structure of respiratory membrane and write hemodynamic factors influencing the exchange of gases across the membrane. 4+6=10
- 2) Describe the regulation of different phases of gastric secretion. 10

WRITE SHORT NOTES ON: 5x4=20

- 3) Describe the role of B-lymphocytes in immunity.
- 4) ABO & Rh system of blood groups.
- 5) Anemic hypoxia.
- 6) Significance of P-R interval.
- 7) Ventricular systole

WRITE BRIEFLY ON: 5x2=10

- 8) Mention the factors effecting the GFR
- 9) Anaphylactic shock.

- 10) Mechanism of sweat secretion
  - 11) Role of vasa recta in kidney.
  - 12) Distribution of Body Fluids.

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DR NTR UNIVERSITY OF HEALTH SCIENCES :: VIJAYAWADA – 520 008  
M.B.B.S. DEGREE EXAMINATION – DECEMBER, 2015  
FIRST M.B.B.S. EXAMINATION  
PHYSIOLOGY  
PAPER-II

Time : 2 ½ Hours Max. Marks  
: 50

**Note:** Answer all questions  
Give diagrammatic representation wherever possible

13) Classify sensory receptors giving examples. Describe the mechanisms by which sensory system codes the sensory modality and stimulus intensity 4+3+3=10

14) Mention the formation, composition and functions of cerebrospinal fluid (CSF) 3+3+4=10

WRITE SHORT NOTES ON:  $5 \times 4 = 20$

- 15) Dysmetria and Ataxia
  - 16) Hypocalcemic tetany
  - 17) Addison's disease
  - 18) Menopause
  - 19) Prolactin

WRITE BRIEFLY ON: **5x2=10**

- 20) Cryptorchidism
  - 21) Antithyroid drugs
  - 22) Neuroglia
  - 23) Functions of iris
  - 24) Satiety center

- - -

500-A  
DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008  
M.B.B.S. DEGREE EXAMINATION – AUGUST, 2016  
FIRST M.B.B.S. EXAMINATION  
**BIOCHEMISTRY**  
PAPER-I

**Time : 2 ½ Hours** **Max. Marks:**

50

Note: Answer all questions.

Give diagrammatic representation wherever necessary.

145) Write the classification of enzymes giving examples. 5+5=10  
Give an account on enzyme inhibition

146) Write the definition, substrates, pathway including enzymes and regulation of Gluconeogenesis.  $1+2+5+2=10$

**WRITE SHORT NOTES ON:**  $5 \times 4 = 20$

## 147) Chemiosmotic hypothesis

#### 148) Phase I of detoxification

### 149) Bile acids

150) Sickle cell anemia

## 151) Dietary fibre – beneficial and adverse effects

**WRITE BRIEFLY ON:** \_\_\_\_\_ **5x2=10**

- 152) Functions of Vitamin K
  - 153) Steatorrhea
  - 154) von Gierkes disease
  - 155) Deficiency manifestations of Folic acid
  - 156) Lipoprotein structure

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500-B

**DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008**  
**M.B.B.S. DEGREE EXAMINATION – AUGUST, 2016**  
**FIRST M.B.B.S. EXAMINATION**  
**BIOCHEMISTRY**  
**PAPER-II**

50

**Note:** Answer all questions.

**Max. Marks :**

**Give diagrammatic representation wherever necessary.**

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- 144) Write in detail about the metabolism of phenylalanine. Add a note on phenylketonuria. 7+3=10

145) Write in detail about protein biosynthesis in the body. Add a note on post translational modifications. 7+3=10

## **WRITE SHORT NOTES ON:**

$$5 \times 4 = 20$$

- 146) Adrenal function tests
  - 147) Biochemical actions of Prostaglandins
  - 148) Mutation

- 149) Regulation of iron absorption
- 150) Biochemical functions of Zinc and Iodine
- WRITE BRIEFLY ON:
- 151) Functions of thyroxine
- 152) What are tumor markers? Give two examples
- 153) Mention the normal serum and urinary levels of total protein and albumin
- 154) Nucleotides
- 155) Respiratory Alkalosis

5x2=10

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DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008  
 M.B.B.S. DEGREE EXAMINATION – AUGUST, 2016  
 FIRST M.B.B.S. EXAMINATION

**ANATOMY****PAPER-I**

Time : 2 ½ Hours

Max. Marks : 50

Note: Answer all questions

Illustrate your answers with suitable diagrams

145) Describe the Oculomotor nerve under the following headings:

- I) Origin 2+3=6
- J) Course 3
- K) Distribution 2
- L) Applied Anatomy 1

146) Describe the palatine tonsil under the following headings

1+4+3+2=10

- I) Location 1
- J) External features with relations 4
- K) Microscopic structure 3
- L) Applied Anatomy 2

**WRITE SHORT NOTES ON:**

5x4=20

147) Radial artery – origin, course, relations and applied anatomy

148) Biceps brachii – origin, insertion and actions

149) Formation and fate of the pharyngeal clefts

150) Fornix

151) Cerebellar Peduncles

**WRITE BRIEFLY ON:**

5x2=10

152) Pharyngeal plexus of the nerves

153) Cleavage lines of skin in face

154) Histology of elastic cartilage

155) Motor speech area

156) Inferior radio-ulnar joint

**DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008**  
**M.B.B.S. DEGREE EXAMINATION – AUGUST, 2016**  
**FIRST M.B.B.S. EXAMINATION**

**FIRST M.B.B.S. EXAMINATION**  
**ANATOMY**  
**PAPER-II**

Time : 2  $\frac{1}{2}$  Hours Max Marks: 100

50

Note: Answer all questions

Illustrate your answers with suitable diagrams

- 145 Describe the knee joint under the following headings                    1+3+2+3+1=10

- E) Articular surfaces
  - F) Ligaments
  - G) Movements
  - H) Bursae
  - I) Applied Anatomy

- 146 Describe the vermiform appendix under the following headings 2+2+3+3=10

- J) Gross anatomy
  - K) Micro anatomy
  - L) Development
  - M) Applied anatomy

## **WRITE SHORT NOTES ON:**

$$5 \times 4 = 20$$

- ## 147 Common peroneal nerve – origin, course and branches

- 148 Histology of ovary

- 149 Development of kidney and mention two congenital anomalies

- ## 150 Classification joints

- ## 151 Superior vena cava – formation, course, termination and relations

**WRITE BRIEFLY ON:**

$$5 \times 2 = 10$$

- ## 152 Lobes of Prostate

- 153 Enumerate features of Klinefelter's syndrome

- 154 Pleural recesses

155 Superficial cardiac plexus

156 Rectouterine pouch

- - -

503-A

DR NTR UNIVERSITY OF HEALTH SCIENCES :: VIJAYAWADA – 520 008

## M.B.B.S. DEGREE EXAMINATION – AUGUST, 2016

## FIRST M.B.B.S. EXAMINATION

## **PHYSIOLOGY**

PAPFR-T

Time : 2 ½ Hours

**Max. Marks:**

50

Note : Answer all questions

Give diagrammatic representation wherever possible.

- 57) What is hemoglobin and what are its functions? What factors are required for its formation and discuss the catabolism of hemoglobin. 2+2+3+3=10

2) Define Cardiac output. How is it measured in man? Discuss the physiological factors influencing cardiac output. 2+3+5=10

## **WRITE SHORT NOTES ON:**

$$5 \times 4 = 20$$

- 3) Active transport across cell membrane.
  - 4) Blood buffers in regulation of  $P^H$
  - 5) Mechanism of secretion of gastric acid.
  - 6) Chemical control of respiration
  - 7) Regulation of body temperature

## **WRITE BRIEFLY ON:**

$$5 \times 2 = 10$$

- 8) Intrinsic mechanism of blood coagulation
  - 9) Functions of lymph
  - 10) Filtration fraction
  - 11) Ultrastructure of respiratory membrane
  - 12) Gap junctions.

- - -

504-A

DR NTR UNIVERSITY OF HEALTH SCIENCES :: VIJAYAWADA – 520 008

M.B.B.S. DEGREE EXAMINATION – AUGUST, 2016

FIRST M.B.B.S. EXAMINATION

**PHYSIOLOGY**

PAPER-II

Time : 2 ½ Hours

Max. Marks

: 50

Note: Answer all questions

Give diagrammatic representation wherever possible

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- 25) Describe the connections and functions of cerebellum. 8+2=10  
Write a note on dysdiadokokinesia.

- 26) Describe the functions of growth hormone. Add a note on 7+3=10  
effects of its hypersecretion.

WRITE SHORT NOTES ON: 5x4=20

- 27) Stretch and inverse stretch reflex

- 28) Ovulation

- 29) Scotopic and photopic vision

- 30) Spermatogenesis

- 31) Excitation – contraction coupling in skeletal muscles

WRITE BRIEFLY ON: 5x2=10

- 32) Electroencephalogram (EEG)

- 33) Mechanism of action of Insulin

- 34) Role of middle ear in hearing

- 35) Oral contraceptives

- 36) Saltatory conduction

- - -  
500-A

DR. NTR UNIVERSITY OF HEALTH SCIENCES: AP: VIJAYAWADA-520 008  
M.B.B.S. DEGREE EXAMINATION – DECEMBER, 2016  
FIRST M.B.B.S. EXAMINATION  
BIOCHEMISTRY  
PAPER-I

Time : 2 ½ Hours Max. Marks:  
50

Answer all questions

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157) Write in detail about the metabolism of chylomicrons 6+4=10  
giving suitable examples.

158) Write in detail about the steps of glycolysis in anaerobic 6+2+2=10  
condition. Add a note on its regulation and energetics.

WRITE SHORT NOTES ON: 5x4=20

159) Functions of biotin

160) Homopolysaccharides

161) Define Basal Metabolic Rate (BMR) and write the factors  
affecting BMR

162) Protein energy malnutrition

163) Isoenzymes

WRITE BRIEFLY ON: 5x2=10

164) Significance of uronic acid pathway

165) Acute intermittent porphyria – mention the deficient  
enzyme and the lab findings

166) Effect of temperature on enzyme activity

167) Mention different types of  $\alpha$ -Thalassemias

168) Mention functions of Haemoglobin

DR NTR UNIVERSITY OF HEALTH SCIENCES :: VIJAYAWADA – 520 008

M.B.B.S. DEGREE EXAMINATION – DECEMBER, 2016

FIRST M.B.B.S. EXAMINATION

**BIOCHEMISTRY**

PAPER-II

Time : 2  $\frac{1}{2}$  Hours

Max. Marks

: 50

Note: Answer all questions

Draw diagrammatic representation wherever necessary.

- 156) Write about transamination, deamination and transmethylation 4+3+3=10

- 157) Discuss the role of buffers and kidney in  $p^H$  homeostasis. 3+7=10

WRITE SHORT NOTES ON:

5x4=20

- 158) Hyperuricemia

- 159) Mutations

- 160) Structure of plasma membrane

- 161) Recombinant DNA

- 162) Iron absorption

WRITE BRIEFLY ON:

5x2=10

- 163) Isoelectric  $p^H$

- 164) Functions of Calcium

- 165) Termination of Transcription

- 11) Alkaptonuria

- 12) Mention functions of immunoglobulins



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DR. NTR UNIVERSITY OF HEALTH SCIENCES: AP: VIJAYAWADA-520 008

M.B.B.S. DEGREE EXAMINATION – DECEMBER, 2016

FIRST M.B.B.S. EXAMINATION

ANATOMY

PAPER-I

Time : 2 ½ Hours

Max. Marks

: 50

Note: Answer all questions

Illustrate your answers with suitable diagrams

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157 Describe the thyroid gland under the following headings:

- a) Location
- b) Relations
- c) Blood supply
- d) Applied anatomy

2+3+3+2=10

158 Describe the brachial plexus under the following headings:

2+2+3+3=10

- a) Formation
- b) Relations
- c) Branches
- d) Applied Anatomy

WRITE SHORT NOTES ON:

5x4=20

159 Rhomboid fossa

160 Internal capsule

161 Development of tongue

162 Histology of cardiac muscle

163 Facial artery – origin, course, relations and applied anatomy

WRITE BRIEFLY ON:

5x2=10

164 Nerve supply and actions of deltoid muscle

165 Contents and applied anatomy of cubital fossa

166 Subarachnoid space

167 Layers of retina

168 Pulp space of the fingers

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**DR. NTR UNIVERSITY OF HEALTH SCIENCES: AP: VIJAYAWADA-520 008**  
**M.B.B.S. DEGREE EXAMINATION – DECEMBER, 2016**  
**FIRST M.B.B.S. EXAMINATION**  
**ANATOMY**  
**PAPER-II**

Time : 2 ½ Hours

**Max. Marks:**

50

**Note:** Answer all questions

Illustrate your answers with suitable diagrams

- 15 Describe the hip joint under the following headings:  $2+3+2+2+1=10$

  - a) Articular surfaces
  - b) Ligaments
  - c) Movements
  - d) Blood and nerve supply
  - e) Applied anatomy

15 Describe pancreas under the following headings:  $1+4+3+2=10$

  - a) Parts
  - b) Relations
  - c) Blood supply
  - d) Applied anatomy

## **WRITE SHORT NOTES ON:**

$$5 \times 4 = 20$$

- 15 Popliteal artery – origin, relations and Branches
  - 16 Gluteus maximus – Origin, insertion, nerve supply and actions
  - 16 Development of urinary bladder and mention two congenital anomalies

## Histology of uterus

## 16 Ischiorectal fossa

## **WRITE BRIEFLY ON:**

$$5 \times 2 = 10$$

- 16 Enumerate features of Turner's Syndrome
  - 16 Sinoatrial (SA) node
  - 16 Lymphatic drainage of stomach

16 Pericardial sinuses

16 Mention the differences between right and left lungs

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503-A

DR. NTR UNIVERSITY OF HEALTH SCIENCES: AP: VIJAYAWADA-520 008

M.B.B.S. DEGREE EXAMINATION – DECEMBER, 2016

FIRST M.B.B.S. EXAMINATION

PHYSIOLOGY

PAPER-I

Time : 2 ½ Hours

Max. Marks: 50

Note : Answer all questions

Give diagrammatic representation wherever possible

---

- 58) Define Hypertension. Describe briefly the physiological principles underlying pathogenesis and management of Hypertension. 2+4+4=10
- 2) Define Airway Resistance. Give its normal value. List the factors affecting it. Describe briefly the principles governing flow of Air in Air Passages. 1+1+3+5=10

WRITE SHORT NOTES ON:

5x4=20

- 3) Sodium – Potassium ATPase
- 4) Composition and functions of bile
- 5) Mechanism of secretion of Saliva
- 6) Regulation of Sodium excretion by kidney
- 7) Abnormalities in Haemoglobin synthesis

WRITE BRIEFLY ON:

5x2=10

- 8) Mention functions of spleen
- 9) Hypothermia
- 10) Alimentary Glycosuria
- 11) Deglutition apnoea
- 12) Desmosomes



DR. NTR UNIVERSITY OF HEALTH SCIENCES: AP: VIJAYAWADA-520 008

M.B.B.S. DEGREE EXAMINATION – DECEMBER, 2016

FIRST M.B.B.S. EXAMINATION

PHYSIOLOGY

PAPER-II

Time : 2 ½ Hours

Max. Marks

: 50

Note: Answer all questions

Give diagrammatic representation wherever possible

- 
- 37) Define terms "Growth and Development". List the 2+2+3+3=10 factors affecting them. Describe briefly physiological aspects of both.
- 38) Name the components of middle ear. Give their 2+2+6=10 functions. Describe briefly the role of internal ear in hearing.

WRITE SHORT NOTES ON:

5x4=20

- 39) Properties of Nerve Fibers
- 40) Withdrawal reflex
- 41) Control of testicular activity
- 42) Somatosensory Cortex
- 43) Fertilization and implantation of ovum

WRITE BRIEFLY ON:

5x2=10

- 44) Miniature end plate potential
- 45) Catabolic Nervous System
- 46) Isometric Muscle Contraction
- 47) Colostrum
- 48) Types of smooth muscles

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# **Q.P. CODE:500-A**

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008

M.B.B.S. DEGREE EXAMINATION – AUGUST, 2017

FIRST M.B.B.S. EXAMINATION

## **BIOCHEMISTRY**

### **PAPER-I**

Time : 2 ½ Hours

Max. Marks:

50

Note: Answer all questions

Draw diagrammatic representation wherever necessary.

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169) Write in detail about Gluconeogenesis. Add a note on its regulation. 7+3=10

170) Write in detail about classification of enzymes giving suitable examples. Write briefly on co-enzymes. 6+4=10

WRITE SHORT NOTES ON: 5x4=20

171) Beneficial effects and adverse effects of fiber in nutrition

172) Disaccharides

173) Components of Electron Transport Chain

174) Biochemical functions of Vitamin C

175) Metabolism of Galactose

WRITE BRIEFLY ON: 5x2=10

176) Lipid Digestion

177) Regulation of Cholesterol Synthesis

178) von Gierke Disease

179) Rapoport-Luebering Cycle

180) Acute intermittent porphyria



## **Q.P. CODE:500-B**

DR NTR UNIVERSITY OF HEALTH SCIENCES :: VIJAYAWADA – 520 008

M.B.B.S. DEGREE EXAMINATION – AUGUST, 2017

FIRST M.B.B.S. EXAMINATION

### **BIOCHEMISTRY**

PAPER-II

Time : 2 ½ Hours

Max. Marks :

50

Note: Answer all questions

Draw diagrammatic representation wherever necessary.

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166) Write in detail about Urea Cycle. Add a note on Hyperammonemia. 7+3=10

167) Describe DNA replication with suitable illustrations. 7+3=10

WRITE SHORT NOTES ON: 5x4=20

168) Purine Catabolism

169) Mechanisms of Hormone Action

170) Liver Function Tests

171) Functions and clinical significance of albumin

172) Chemical Carcinogens

WRITE BRIEFLY ON: 5x2=10

173) Phenylketonuria

174) Facilitated diffusion

175) Blood Buffers

11) Storage and Transport forms of Iron

12) Define free radical and mention common characteristic features of free radicals

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# **Q.P. CODE:501-A**

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008  
M.B.B.S. DEGREE EXAMINATION –AUGUST, 2017  
FIRST M.B.B.S. EXAMINATION

## **ANATOMY**

### **PAPER-I**

Time : 2 ½ Hours

Max. Marks

: 50

Note: Answer all questions

Illustrate your answers with suitable diagrams

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169] Describe the cavernous sinus under the following headings:

- a) Formation
- b) Relations
- c) Contents
- d) Communications
- e) Applied anatomy

1+3+3+1+2=10

170] Describe the mammary gland under the following headings:

- a) Location
- b) Relations
- c) Lymphatic drainage
- d) Applied anatomy

1+3+4+2=10

#### WRITE SHORT NOTES ON:

5x4=20

171] Floor of IV ventricle

172] Radial nerve – Course and Applied Anatomy

173] Development of thyroid gland

174] Histology of palatine tonsil

175] Basilar artery

#### WRITE BRIEFLY ON:

5x2=10

176] Nerve supply and action of masseter muscle

177] Cephalic Vein

178] Formation of ansa cervicalis

179] Surgical neck of humerus

180] Winging of scapula

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# **Q.P.CODE:502-A**

DR NTR UNIVERSITY OF HEALTH SCIENCES :: VIJAYAWADA – 520 008

M.B.B.S. DEGREE EXAMINATION – AUGUST, 2017

FIRST M.B.B.S. EXAMINATION

## **ANATOMY**

### **PAPER-II**

Time : 2 ½ Hours

Max. Marks: 50

Note: Answer all questions

Illustrate your answers with suitable diagrams

---

16C Describe the second part of Duodenum under the  
following headings:  $2+4+2+2=10$

- N) Location and extent
- O) Relations
- P) Interior
- Q) Development

17C Describe the Knee joint under the following headings:  $2+2+3+3=10$

- F) Classification
- G) Articular surfaces
- H) Ligaments
- I) Locking and unlocking

WRITE SHORT NOTES ON:  $5 \times 4 = 20$

171 Microscopic anatomy of liver

172 Conducting system of heart

173 Profunda femoris artery

174 Biceps femoris – Origin, insertion, Nerve supply and action

175 Ligaments and arterial blood supply of uterus

WRITE BRIEFLY ON:  $5 \times 2 = 10$

176 Enumerate features of Klinefelter syndrome

177 Muscles supplied by femoral nerve

178 Blood supply of head of pancreas

179 Anatomical landmarks at the level of sternal angle

18C Labeled diagram of structure at hilum of right lung

- - -



# **Q.P. CODE:503-A**

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008

M.B.B.S. DEGREE EXAMINATION – AUGUST, 2017

FIRST M.B.B.S. EXAMINATION

## **PHYSIOLOGY**

PAPER-I

Time : 2 ½ Hours

Max. Marks: 50

Note : Answer all questions

Give diagrammatic representation wherever possible

---

- 59) Define cardiac output. Describe in detail the regulation of cardiac output. 2+8=10

- 2) Write the composition and functions of pancreatic juice. 2+4+4=10  
Describe the regulation of pancreatic juice secretion.

WRITE SHORT NOTES ON: 5x4=20

- 3) Blood clotting mechanism  
4) Haldane effect  
5) Micturition reflex  
6) Enteric nervous system  
7) Periodic breathing

WRITE BRIEFLY ON: 5x2=10

- 8) Define counter transport with an example  
9) Mention four factors affecting the GFR  
10) Mention the functions of platelets  
11) Factors shifting ODC (Oxygen Dissociation Curve) to the right  
12) Mention functions of lymph

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# **Q.P. CODE:504-A**

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008

M.B.B.S. DEGREE EXAMINATION – AUGUST, 2017

FIRST M.B.B.S. EXAMINATION

## **PHYSIOLOGY**

### **PAPER-II**

Time : 2 ½ Hours

Max. Marks

: 50

Note: Answer all questions

Give diagrammatic representation wherever possible

---

- 49) Define Synapse. Give its types. Define the terms EPSP (Excitatory Postsynaptic Potential) and IPSP (Inhibitory Postsynaptic Potential). How does inhibition is brought about at Synapses? 1+2+2+5=10
- 50) Describe the hormonal, ovarian and uterine changes during menstrual cycle. 2+4+4=10

WRITE SHORT NOTES ON: 5x4=20

- 51) Gigantism and Acromegaly
- 52) Referred pain
- 53) Physiology of Olfaction
- 54) Factors affecting visual acuity
- 55) Hormones Regulating Calcium Metabolism

WRITE BRIEFLY ON: 5x2=10

- 56) Factors influencing spermatogenesis
- 57) Mention two features of REM stage
- 58) Auditory Threshold
- 59) Clinical significance of Neuromuscular junction
- 60) Features of hypothyroidism in adult

---

**Q.P. CODE:500-A**

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008  
M.B.B.S. DEGREE EXAMINATION –NOVEMBER, 2017  
FIRST M.B.B.S. EXAMINATION

**BIOCHEMISTRY**

PAPER-I

Time : 2 ½ Hours  
50

Max. Marks:

Answer all questions

---

181) Explain the pathway of Ketone bodies synthesis and utilization. Add a note on Ketoacidosis. 6+4=10

182) Describe the sources, absorption, biochemical functions and deficiency manifestations of Cobalamin. 2+2+4+2=10

WRITE SHORT NOTES ON: 5x4=20

183) Factors affecting enzyme activity

184) Absorption of glucose

185) Events of Citric Acid Cycle

186) Acute intermittent Porphyria and Porphyria Cutanea

Tarda

187) Sources and beneficial effects of dietary fibre

WRITE BRIEFLY ON:

5x2=10

188) Define and list the lipotropic factors

189) Write four functions of cholesterol

190} Detoxification by oxidation

191} Write two examples for competitive inhibition

192} List the coenzymes of Pyruvate dehydrogenase

complex

---

## **Q.P. CODE: 500-B**

DR NTR UNIVERSITY OF HEALTH SCIENCES :: VIJAYAWADA – 520 008

M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2017

FIRST M.B.B.S. EXAMINATION

### **BIOCHEMISTRY**

PAPER-II

Time : 2 ½ Hours

Max. Marks :

50

Note: Answer all questions

Draw diagrammatic representation wherever necessary.

---

176) Describe the features of genetic code. Explain the classification of point mutation citing examples.                    3+7=10

177) Write in detail about Calcium homeostasis in the body.                    8+2=10  
Add a note on hypocalcemia

5x4=20

#### WRITE SHORT NOTES ON:

178) Sources of atoms of purine and pyrimidine rings

179) What is Transamination? Write the salient features of Transamination.

180) Functions and clinical significance of Albumin

181) Iron absorption

182) Classification of hormones citing examples

#### WRITE BRIEFLY ON:

5x2=10

183) Alkaptonuria

184) Most commonly used tumor markers

185) Define clearance

186) Types of RNAs

187) What is isoelectric pH?

---

# **Q.P. CODE:501-A**

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008  
M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2017  
FIRST M.B.B.S. EXAMINATION

## **ANATOMY**

### **PAPER-I**

Time : 2 ½ Hours

Max. Marks

: 50

Note: Answer all questions

Illustrate your answers with suitable diagrams

---

181] Describe the parotid gland under the following headings:

- M) Gross anatomy
- N) Microanatomy
- O) Development
- P) Applied anatomy

4+2+2+2=10

182] Describe the shoulder joint under the following headings:

- M) Classification
- N) Articular surfaces
- O) Movements and muscles causing them
- P) Applied anatomy

2+2+4+2=10

#### WRITE SHORT NOTES ON:

5x4=20

183] Histology of Retina

184] Cerebellar Peduncles

185] Development of Tongue

186] Vertebral artery - course and relations

187] Parts and Fibres of Internal Capsule

#### WRITE BRIEFLY ON:

5x2=10

188] Actions of sternocleidomastoid muscle

189] Branches of mandibular nerve

190] Name the cartilages of larynx

191] Boundaries and floor of Carotid Triangle

192] Identifying features and clinical anatomy of scaphoid bone

---

# **Q.P. CODE:502-A**

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008

M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2017

FIRST M.B.B.S. EXAMINATION

## **ANATOMY**

PAPER-II

Time : 2 ½ Hours

Max. Marks: 50

Note: Answer all questions

Illustrate your answers with suitable diagrams

---

181 Describe the left lung under the following headings:  $2+3+2+1+2=10$

- a) Parts
- b) Relations
- c) Arterial blood supply
- d) Venous drainage
- e) Applied Anatomy

182 Describe the uterus under the following headings:  $1+4+3+2=10$

- a) Normal position
- b) Parts and relations
- c) Supports
- d) Applied Anatomy

**WRITE SHORT NOTES ON:**  $5 \times 4 = 20$

183 Great saphenous vein – Formation, course and applied anatomy

184 Left coronary artery – Origin, course and Branches and distribution

185 Psoas major muscle – Origin, insertion and actions

186 Histology of prostate

187 Menisci of knee joint

**WRITE BRIEFLY ON:**  $5 \times 2 = 10$

188 Development of ureter

189 Lymphatic drainage of stomach

190 Femoral sheath

191 Mitosis

---

## **Q.P. CODE:503-A**

DR. NTR UNIVERSITY OF HEALTH SCIENCES: AP: VIJAYAWADA-520 008

M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2017

FIRST M.B.B.S. EXAMINATION

### **PHYSIOLOGY**

PAPER-I

Time : 2 ½ Hours

Max. Marks: 50

Note : Answer all questions

Give diagrammatic representation wherever possible

---

- 60) Describe the neural regulation of respiration. Write a note on Hering-Breuer Reflex. 7+3=10
- 2) Define mean arterial blood pressure. Explain various factors controlling it. 2+8=10

WRITE SHORT NOTES ON: 5x4=20

- 3) Composition and functions of Pancreatic juice
- 4) Regulation of Erythropoiesis
- 5) Digestion and absorption of proteins
- 6) Mechanism of absorption of sodium in renal tubules
- 7) Characteristics of normal ECG and Significance of P-R interval

WRITE BRIEFLY ON: 5x2=10

- 8) Mitochondria - structure and function
- 9) Cephalic phase of secretion of gastric juice
- 10) Important factors determine heat production  
(Thermogenesis)
- 11) Hypoxia - Definition and types

12) Facilitated diffusion - Definition and factors affecting it.

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# **Q.P. CODE:504-A**

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008

M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2017

FIRST M.B.B.S. EXAMINATION

## **PHYSIOLOGY**

### **PAPER-II**

Time : 2 ½ Hours

Max. Marks

: 50

Note : Answer all questions

Give diagrammatic representation wherever possible

---

- 61) Describe the origin and course of pyramidal tract. What would be the neurological deficits in a case of lesion of the pyramidal tract at the level of left internal capsule? 5+5=10
- 62) Enumerate the hormones affecting plasma calcium levels. Discuss the actions of any two of them. 2+8=10

WRITE SHORT NOTES ON: 5x4=20

- 63) Conditioned reflex
- 64) Circadian rhythm of ACTH release
- 65) Errors of refraction and their correction by lenses
- 66) Indicators of ovulation
- 67) Classification of nerve fibers

WRITE BRIEFLY ON: 5x2=10

- 68) Functions of Placenta
- 69) Dwarfism
- 70) Role of inner ear in hearing
- 71) Control of Onset of puberty
- 72) Length-tension relationship in skeletal and smooth muscles

---

**Q.P. CODE:500-A**

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008

## M.B.B.S. DEGREE EXAMINATION – JULY, 2018

## FIRST M.B.B.S. EXAMINATION

# BIOCHEMISTRY

PAPER-I

Time : 2 ½ Hours

**Max. Marks:**

50

Note: Answer all questions

Draw diagrammatic representation wherever necessary.

- 193) Explain the classification of enzymes citing examples. 5+5=10  
Give an account on the enzymes of diagnostic importance.

194) Describe the metabolism of low density lipoprotein (LDL). 7+3=10  
Add a note on hypercholesterolemia.

## **WRITE SHORT NOTES ON:**

- $$5 \times 4 = 20$$

- 195) Homopolysaccharides
  - 196) Electron transport chain
  - 197) Functions of Vitamin C
  - 198) Importance of HMP pathway
  - 199) Bilirubin excretion

**WRITE BRIEFLY ON:**

- $$5 \times 2 = 10$$

- 200) List any four pathways located in mitochondria
  - 201) Functions of Vitamin K
  - 202) Importance of Rapoport Luebering Cycle
  - 203) List any four causes of hyperbilirubinemia
  - 204) List any four conjugating agents of Phase II detoxification



# **Q.P. CODE:500-B**

DR NTR UNIVERSITY OF HEALTH SCIENCES :: VIJAYAWADA – 520 008

M.B.B.S. DEGREE EXAMINATION – JULY, 2018

FIRST M.B.B.S. EXAMINATION

## **BIOCHEMISTRY**

PAPER-II

Time : 2 ½ Hours

Max. Marks :

50

Note: Answer all questions

Draw diagrammatic representation wherever necessary.

---

188) Describe the replication of DNA with illustration. 8+2=10

189) Discuss the role of buffers and kidney in pH homeostasis. 3+7=10

WRITE SHORT NOTES ON: 5x4=20

190) Liver function tests

191) Metabolic acidosis

192) Purine catabolism

193) Structure of immunoglobulin

194) Structure of plasma membrane

WRITE BRIEFLY ON: 5x2=10

195) List the special products derived from glycine

196) Phenylketonuria

197) Write the normal values of serum sodium and potassium

11) List four iron containing proteins

12) List four antioxidants

---

# **Q.P. CODE:501-A**

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008  
M.B.B.S. DEGREE EXAMINATION – JULY, 2018  
FIRST M.B.B.S. EXAMINATION

## **ANATOMY**

### **PAPER-I**

Time : 2 ½ Hours

Max. Marks

: 50

Note: Answer all questions

Illustrate your answers with suitable diagrams

---

193] Describe the cubital fossa under the following headings:

- a) Boundaries
- b) Contents
- c) Applied anatomy

3+4+3=10

194] Describe the meninges of the brain. Add a note on the circulation of cerebro-spinal fluid

7+3=10

#### WRITE SHORT NOTES ON:

5x4=20

195] Parotid duct

196] Development of palate

197] Corpus callosum

198] Histology of bone

199] Carpal tunnel syndrome

#### WRITE BRIEFLY ON:

5x2=10

200] Facial vein

201] Nerve supply of anterior two thirds of tongue

202] Sesamoid bone

203] Bones forming nasal septum

204] Name the arteries supplying the thumb and the index finger



# **Q.P.CODE:502-A**

DR NTR UNIVERSITY OF HEALTH SCIENCES :: VIJAYAWADA – 520 008

M.B.B.S. DEGREE EXAMINATION – JULY, 2018

FIRST M.B.B.S. EXAMINATION

## **ANATOMY**

PAPER-II

Time : 2 ½ Hours

Max. Marks: 50

Note: Answer all questions

Illustrate your answers with suitable diagrams

---

193 Describe the external features of the heart. Add a note on its blood supply. 6+4=10

194 Describe the venous drainage and lymphatic drainage of the lower limb 5+5=10

WRITE SHORT NOTES ON: 5x4=20

195 Second part of duodenum

196 Hemiazygos vein

197 Histology of appendix

198 Cruciate ligaments

199 Plantar aponeurosis

WRITE BRIEFLY ON: 5x2=10

200 Douglas pouch

201 Mcburney's point

202 Cervical rib

203 Formation of portal vein

204 Branches of superior mesenteric artery

---

# **Q.P. CODE:503-A**

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008

M.B.B.S. DEGREE EXAMINATION – JULY, 2018

FIRST M.B.B.S. EXAMINATION

## **PHYSIOLOGY**

PAPER-I

Time : 2 ½ Hours

Max. Marks: 50

Note : Answer all questions

Give diagrammatic representation wherever possible

---

- 61) Draw a neat diagram showing the structure of respiratory membrane and write the hemodynamic factors influencing the exchange of gases across the membrane. 10
- 2) Define GFR and describe in detail the factors influencing glomerular filtration. 10

WRITE SHORT NOTES ON: 5x4=20

- 3) Lymph  
4) Functions of bile  
5) Heart sounds  
6) Positive feedback mechanism  
7) Hamburger shift

WRITE BRIEFLY ON: 5x2=10

- 8) Exocytosis  
9) Carotid body  
10) Erythropoietin  
11) End diastolic volume  
12) Extracellular fluid

---



# **Q.P. CODE:504-A**

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008

M.B.B.S. DEGREE EXAMINATION – JULY, 2018

FIRST M.B.B.S. EXAMINATION

## **PHYSIOLOGY**

PAPER-II

Time : 2 ½ Hours

Max. Marks

: 50

Note: Answer all questions

Give diagrammatic representation wherever possible

---

- |   |    |
|---|----|
| 73) Describe in detail the synthesis, storage and release of thyroxine. | 10 |
| 74) Describe the connections and functions of thalamus.                 | 10 |

WRITE SHORT NOTES ON: 5x4=20

- |   |  |
|---|--|
| 75) Spermatogenesis                         |  |
| 76) Pupillary reflexes                      |  |
| 77) Dorsal column pathway and its functions |  |
| 78) Metabolic functions of cortisol         |  |
| 79) Paralysis agitans                       |  |

WRITE BRIEFLY ON: 5x2=10

- |                                 |  |
|---------------------------------|--|
| 80) Any two tests for pregnancy |  |
| 81) Rheobase                    |  |
| 82) Chromatolysis               |  |
| 83) Cretinism                   |  |
| 84) Castration                  |  |

---

## **Q.P. CODE:500-A**

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008  
M.B.B.S. DEGREE EXAMINATION – OCTOBER/NOVEMBER, 2018  
FIRST M.B.B.S. EXAMINATION

### **BIOCHEMISTRY**

#### PAPER-I

Time : 2 ½ Hours

Max. Marks:

50

Note: Answer all questions

Draw diagrammatic representation wherever necessary.

---

205) Describe the functioning of respiratory chain including chemiosmotic theory. 7+3=10

206) Describe the functions and the deficiency manifestations of Vitamin D. Add a note on the biochemical basis of the deficiency manifestations 6+2+2=10

WRITE SHORT NOTES ON: 5x4=20

207) Sickle cell anaemia

208) Lactose intolerance

209) Anaerobic glycolysis

210) Pyridoxine

211) Hypercholesterolemia

WRITE BRIEFLY ON: 5x2=10

212) Deficiency manifestations of folic acid

213) List any four dietary fibres

214) Methaemoglobin

- 215) List the functions of phospholipids
- 216) Normal values for plasma glucose concentration (fasting  
and 2 hour Post Prandial)

---

# **Q.P. CODE:500-B**

DR NTR UNIVERSITY OF HEALTH SCIENCES :: VIJAYAWADA – 520 008  
M.B.B.S. DEGREE EXAMINATION – OCTOBER/NOVEMBER, 2018  
FIRST M.B.B.S. EXAMINATION

## **BIOCHEMISTRY**

PAPER-II

Time : 2 ½ Hours

Max. Marks :

50

Note: Answer all questions

Draw diagrammatic representation wherever necessary.

---

- 198) Describe the steps of urea cycle. Add a note on the associated inherited disorders. 7+3=10

- 199) Describe the lac operon model of gene expression. 3+7=10

WRITE SHORT NOTES ON: 5x4=20

- 200) Renal function tests

- 201) Metabolic alkalosis

- 202) Alcaptonuria

- 203) Thyroid Hormones

- 204) Post translational modifications

WRITE BRIEFLY ON: 5x2=10

- 205) Write the functions of Calcium

- 206) List any four tumor markers

- 207) Write the normal values of serum urea and creatinine

- 11) Write the mechanism of action of allopurinol

- 12) List any four second messengers



# **Q.P. CODE:501-A**

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008  
M.B.B.S. DEGREE EXAMINATION – OCTOBER/NOVEMBER, 2018  
FIRST M.B.B.S. EXAMINATION

## **ANATOMY**

### **PAPER-I**

Time : 2 ½ Hours

Max. Marks

: 50

Note: Answer all questions

Illustrate your answers with suitable diagrams

---

205] Describe the Brachial Plexus under the following headings:

- a) Formation 3+4=10
- b) Branches
- c) Applied anatomy

206] Describe the parotid gland under the following headings: 1+1+4+2+2=10

- a) Parts
- b) Capsule
- c) Relations
- d) Blood supply
- e) Applied Anatomy

#### WRITE SHORT NOTES ON:

5x4=20

207] Blood supply of thyroid gland

208] Inferior cerebellar peduncle

209] Mesodermal derivatives of second arch

210] Histology of tonsil

211] Lateral medullary syndrome

#### WRITE BRIEFLY ON:

5x2=10

212] Movements of thumb

213] Nerve supply and action of sternocleidomastoid

214] Bones forming hard palate

215] Formation of external jugular vein

216 Bell's palsy

---

# **Q.P.CODE:502-A**

DR NTR UNIVERSITY OF HEALTH SCIENCES :: VIJAYAWADA – 520 008

M.B.B.S. DEGREE EXAMINATION – OCTOBER/NOVEMBER, 2018

FIRST M.B.B.S. EXAMINATION

## **ANATOMY**

### **PAPER-II**

Time : 2 ½ Hours

Max. Marks: 50

Note: Answer all questions

Illustrate your answers with suitable diagrams

---

205 Describe the femoral triangle under the following headings.

3+4+3=10

- a) Boundaries
- b) Contents
- c) Applied Anatomy

206 Describe the right kidney under the following headings

1+4+3+2=10

- a) Location
- b) Relations
- c) Blood supply
- d) Applied anatomy

#### WRITE SHORT NOTES ON:

5x4=20

207 Inversion and eversion

208 Dorsalis pedis artery

209 Interior of urinary bladder

210 Valves of the heart

211 Pleural recesses

#### WRITE BRIEFLY ON:

5x2=10

212 Development of pancreas

213 Bare area of liver

214 Parts of fallopian tube

215 Different positions of appendix

216 Typical rib

---



## **Q.P. CODE:503-A**

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008

M.B.B.S. DEGREE EXAMINATION – OCTOBER/NOVEMBER, 2018

FIRST M.B.B.S. EXAMINATION

### **PHYSIOLOGY**

PAPER-I

Time : 2 ½ Hours

Max. Marks: 50

Note : Answer all questions

Give diagrammatic representation wherever possible

---

62) Discuss the temperature regulating mechanisms of the body. Add a note on Hypothermia 10

2) Describe the hemodynamic events during a cardiac cycle. 10

WRITE SHORT NOTES ON: 5x4=20

3) Gastric phase of gastric secretion

4) Erythroblastosis fetalis

5) Neutrophil Phagocytosis

6) Lung compliance

7) Respiratory centers

WRITE BRIEFLY ON: 5x2=10

8) Plasma osmolality

9) Choleretic agents

10) Reflex salivation

11) Vagal tone

12) Dysbarism

---

# **Q.P. CODE:504-A**

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008

M.B.B.S. DEGREE EXAMINATION – OCTOBER/NOVEMBER, 2018

FIRST M.B.B.S. EXAMINATION

## **PHYSIOLOGY**

PAPER-II

Time : 2 ½ Hours

Max. Marks

: 50

Note: Answer all questions

Give diagrammatic representation wherever possible

---

- 85) Describe the connections and functions of basal ganglia 10

- 86) Describe the actions and regulation of secretion of glucocorticoids 10

WRITE SHORT NOTES ON: 5x4=20

- 87) Referred pain

- 88) Physiology of Olfaction

- 89) Propagation of nerve action potential

- 90) Aqueous humor

- 91) Type of deafness

WRITE BRIEFLY ON: 5x2=10

- 92) Olfactory receptors

- 93) Troponin

- 94) Intraocular muscles

- 95) Motor rhythm method of contraception

- 96) Aphasia

**Q.P. CODE:500-A**

**DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008  
M.B.B.S. DEGREE EXAMINATION – JULY, 2019  
FIRST M.B.B.S. EXAMINATION**

# BIOCHEMISTRY

PAPER-I

Time : 2 ½ Hours

**Max. Marks:**

50

Note: Answer all questions

Draw diagrammatic representation wherever necessary.

- 217) Describe the steps of beta oxidation. Add a note on its energetics 7+3=10

218) Describe the breakdown of heme to bilirubin and its excretion 5+5=10

## **WRITE SHORT NOTES ON:**

- $$5 \times 4 = 20$$

- 219) Competitive inhibition of enzymes
  - 220) Chemiosmotic theory
  - 221) Glucose 6 phosphate dehydrogenase (G6PD) deficiency
  - 222) Active vitamin D (calcitriol) formation in the body
  - 223) Gluconeogenesis

## **WRITE BRIEFLY ON:**

- $$5 \times 2 = 10$$

- 224) Write the functions of dietary fibres
  - 225) Write four functions of cholesterol
  - 226) Write the functions of hemoglobin
  - 227) Write the deficiency manifestations of Thiamine

228) Write the reasons for congenital cataract in galactosemia

---

**Q.P. CODE:500-B**

DR NTR UNIVERSITY OF HEALTH SCIENCES :: VIJAYAWADA – 520 008

M.B.B.S. DEGREE EXAMINATION – JULY, 2019

## FIRST M.B.B.S. EXAMINATION

# BIOCHEMISTRY

PAPER-II

Time : 2 ½ Hours

**Max. Marks :**

50

Note: Answer all questions

Draw diagrammatic representation wherever necessary.

- 208) Describe the metabolism of tyrosine. Add a note on the inherited disorders 6+4=10

- 209) Describe the glomerular and tubular function tests 7+3=10

## **WRITE SHORT NOTES ON:**

- $$5 \times 4 = 20$$

- ### 210) Hyperuricemia

- ## 211) Plasma proteins

- ## 212) Structure of plasma membrane

- ## 213) Polymerase chain reaction

- ## 214) Classification of mutation

**WRITE BRIEFLY ON:**

- $$5 \times 2 = 10$$

- 215) List any four iron containing proteins

- 216) Write the forms of calcium in blood

- 217) List two antioxidants

- 11) List the hormones from pancreas and function of any one of them

- 12) List any four pathways specific to liver



# **Q.P. CODE:501-A**

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008  
M.B.B.S. DEGREE EXAMINATION – JULY, 2019  
FIRST M.B.B.S. EXAMINATION

## **ANATOMY**

### **PAPER-I**

Time : 2 ½ Hours

Max. Marks

: 50

Note: Answer all questions

Illustrate your answers with suitable diagrams

---

217] Describe the Larynx under the following headings:

- a) Cartilages
- b) Muscles
- c) Nerve Supply
- d) Applied anatomy

3+3+2+2=10

218] Describe the Cubital fossa under the following headings:-

5+3+2=10

- a) Boundaries
- b) Contents
- c) Applied anatomy

#### WRITE SHORT NOTES ON:

5x4=20

219] Subarachnoid cisterns of brain

220] Lateral Spino-thalamic tract

221] Placental barrier

222] Histology of Cerebellum

223] Blood supply of Spinal cord

#### WRITE BRIEFLY ON:

5x2=10

224] Nerve supply and actions of Extra ocular muscle

225] Cephalic vein

226] Duramater

227] Erb's Paralysis

228' Pisiform bone

---

# **Q.P.CODE:502-A**

DR NTR UNIVERSITY OF HEALTH SCIENCES :: VIJAYAWADA – 520 008

M.B.B.S. DEGREE EXAMINATION – JULY, 2019

FIRST M.B.B.S. EXAMINATION

## **ANATOMY**

### **PAPER-II**

Time : 2 ½ Hours

Max. Marks: 50

Note: Answer all questions

Illustrate your answers with suitable diagrams

---

217 Describe the Thoracic duct under the following headings:- 2+3+3+2=10

- a) Origin and termination
- b) Course
- c) Area of drainage
- d) Function

218 Describe the Psoas major muscle under the following headings:- 3+2+3+2=10

- a) Attachments
- b) Nerve supply
- c) Actions
- d) Applied anatomy

#### WRITE SHORT NOTES ON:

5x4=20

219 Retinacula around Ankle joint

220 Popliteal artery – Origin, Relations and Branches

221 Karyotyping

222 Microscopic structure of Testis

223 Tibialis posterior muscle

#### WRITE BRIEFLY ON:

5x2=10

224 Development of Diaphragm

225 Hallux valgus

226 Femoral nerve

227 Pericardium

228 Branches of Abdominal aorta

---

## **Q.P. CODE:503-A**

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008

M.B.B.S. DEGREE EXAMINATION – JULY, 2019

FIRST M.B.B.S. EXAMINATION

### **PHYSIOLOGY**

PAPER-I

Time : 2 ½ Hours

Max. Marks: 50

Note : Answer all questions

Give diagrammatic representation wherever possible

---

- 63) Explain the regulation of blood pressure by the baroreceptors. List three salient features of hemorrhagic shock and the basis of each. 7+3=10
- 2) State the location of chemoreceptors regulating respiration. Specify their role. 2+8=10

WRITE SHORT NOTES ON: 5x4=20

- 3) Peptic ulceration  
4) Cellular immunity  
5) Mechanism of action of anticoagulants  
6) Renal glucose reabsorption  
7) Factors affecting glomerular filtration rate

WRITE BRIEFLY ON: 5x2=10

- 8) Lymphoedema  
9) Facilitated diffusion  
10) Mention functions of Spleen  
11) Pacemaker potential  
12) Micturition reflex

---

# **Q.P. CODE:504-A**

DR. NTR UNIVERSITY OF HEALTH SCIENCES:AP:VIJAYAWADA-520 008

M.B.B.S. DEGREE EXAMINATION – JULY, 2019

FIRST M.B.B.S. EXAMINATION

## **PHYSIOLOGY**

PAPER-II

Time : 2 ½ Hours

Max. Marks

: 50

Note: Answer all questions

Give diagrammatic representation wherever possible

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- 97) Draw a labeled diagram to show the origin, course and termination of the corticospinal tracts. List the features of hemiplegia. 6+4=10
- 98) Name the hormones involved in somatic growth. Outline the role of each. 2+8=10

WRITE SHORT NOTES ON: 5x4=20

- 99) Endogenous analgesia system
- 100) Draw the "Dark adaptation' curve and explain the mechanisms involved

101) Basis and testing of conductive deafness

102) Features of Cushing's syndrome

103) Spinal shock

WRITE BRIEFLY ON: 5x2=10

104) Factors blocking conduction in nerves

105) Functions of corpus luteum

106) Sertoli cells

107) Diagram of taste pathways

108) Bitemporal hemianopia

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