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

|  |  |  |
| --- | --- | --- |
|  | Describe the Axillary artery under the following headings   1. Course 2. Relations 3. Branches 4. Applied aspects | 2+4+2+2=10 |
|  | Describe the internal capsule under the following heads   1. Parts 2. Relations 3. Fiber components 4. Arterial supply 5. Applied anatomy | 1+2+3+2+2=10 |
|  | WRITE SHORT NOTES ON: | 5x4=20 |
|  | Tentorium cerebelli |  |
|  | Anatomical snuff box |  |
|  | Visual cortex |  |
|  | Histology of skeletal muscle |  |
|  | Development of the tongue |  |
|  | WRITE BRIEFLY ON: | 5x2=10 |
|  | Piriform recess |  |
|  | Formation and distribution of ansa cervicalis |  |
|  | List the branches of medial cord of brachial plexus |  |
|  | Name the muscles forming rotator cuff |  |
|  | Name any four Carpal Bones  --- |  |

502-A

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

|  |  |  |
| --- | --- | --- |
|  | Describe the arterial supply, venous drainage and nerve supply of the heart. | 4+3+3=10 |
|  | Describe the Uterus under the following headings:   1. Normal position 2. Parts with relations 3. Supports 4. Embryologic development | 1+4+3+2=10 |
|  | WRITE SHORT NOTES ON: | 5x4=20 |
|  | Lesser omentum |  |
|  | Histology of the kidney |  |
|  | Deep peroneal nerve |  |
|  | Cruciate ligaments of the knee joint |  |
|  | Portacaval anastomoses |  |
|  | WRITE BRIEFLY ON: | 5x2=10 |
|  | Sex chromosomes |  |
|  | Down’s syndrome |  |
|  | Costodiaphragmatic recess of pleura |  |
|  | Embryologic development of the suprarenal gland |  |
|  | Cystic artery |  |

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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

Answer all questions

|  |  |  |
| --- | --- | --- |
|  | Describe the process of β (beta) – oxidation of fatty acids. Add a note on the energetics of the pathway. | 7+3=10 |
|  | 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 |
|  | Describe briefly the hormonal regulation of blood glucose levels. |  |
|  | Draw a plot of Competitive enzyme inhibition. Give 2 examples of competitive inhibitors. |  |
|  | Briefly explain the following:   1. Specific Dynamic Action 2. Glycemic index |  |
|  | Describe the clinical significance of the following enzymes:   1. LDH ii) Alkaline phosphatase iii) Creatine kinase   iv) Amylase v) Alanine transaminase |  |
|  | Give an outline of the electron transport chain including ATP generating sites |  |
|  | WRITE BRIEFLY ON: | 5x2=10 |
|  | Absolute specificity enzymes |  |
|  | Altered CNS behavior in patients with advanced liver disease. |  |
|  | Ethanol is administered in patients with methanol poisoning |  |
|  | Mention functions of Hemoglobinopathies |  |
|  | Lactose intolerance |  |

500-B

M.B.B.S. DEGREE EXAMINATION – NOVEMBER, 2014

FIRST M.B.B.S. EXAMINATION

BIOCHEMISTRY

PAPER-II

Time : 2 ½ Hours Max. Marks : 50

Answer all questions

|  |  |  |  |
| --- | --- | --- | --- |
|  | A 15 year old boy complained of swelling and pain in the distal phalangeal joints. Blood investigation showed the following results.  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? | 1+1+4+4=10 | |
|  | Discuss the metabolism of glycine under the following headings.  i) Synthesis ii) Catabolism  iii) Specialized compounds synthesized | 3+3+4=10 | |
|  | WRITE SHORT NOTES ON: | 5x4=20 | |
|  | Explain the absorption, transport and storage of dietary iron in the body. |  | |
|  | Give an account of post transcription modifications |  | |
|  | Describe PCR with diagram and list out two uses of it. |  | |
|  | Compare and contrast (1 similarity and 2 differences) DNA polymerase and RNA polymerase |  | |
|  | Compare and contrast (1 similarity and 2 differences) prehepatic and post hepatic jaundice |  | |
|  | WRITE BRIEFLY ON: | 5x2=10 | |
|  | Azaserine is used as an anticancer agent | |  | |
|  | Wilson’s disease |  | |
|  | Oxalates in diet inhibit absorption of iron and calcium |  | |
|  | Metabolic acidosis |  | |
|  | Serum alpha fetoprotein and carcinoembryonic antigen |  | |

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

|  |  |  |
| --- | --- | --- |
|  | Describe the following aspects of coronary blood flow:   1. Phasic flow 2. Metabolic regulation 3. Evidences of myocardial ischemia | 3+3+4=10 |
| 2) | Describe the uptake, transport and delivery of oxygen. | 2+6+2=10 |
|  | WRITE SHORT NOTES ON: | 5x4=20 |
| 3) | Abnormalities of hemoglobin synthesis |  |
| 4) | Mismatched blood transfusion |  |
| 5) | Role of esophageal sphincters |  |
| 6) | Voluntary micturition |  |
| 7) | Creatinine clearance |  |
|  | WRITE BRIEFLY ON: | 5x2=10 |
| 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

|  |  |  |
| --- | --- | --- |
|  | Describe the connections and functions of prefrontal lobe. List the effects of its lesion. | 6+4=10 |
|  | Describe the hormonal regulation of calcium metabolism | 6+4=10 |
|  | WRITE SHORT NOTES ON: | 5x4=20 |
|  | Visual pathway and effects of its lesions at various levels |  |
|  | Cochlear microphonics |  |
|  | Pyramidal tract and effect of its lesion at internal capsule |  |
|  | Acromegaly |  |
|  | Puberty |  |
|  | WRITE BRIEFLY ON: | 5x2=10 |
|  | Rigor mortis |  |
|  | Principle of immunological test of pregnancy |  |
|  | Functions of placenta |  |
|  | Dark adaptations |  |
|  | Physiological importance of olfaction  - - - |  |