BAV

2007

MEDICAL SCIENCE - I (Optional) 100059

Standard : Degree *Total Marks : 200*

Nature : Conventional *Duration : 3 Hours*

Note :

(i) *Answers must be written in* ***English.***

(ii) *Question* ***No. 1*** *is* ***Compulsory.*** *Of the remaining questions, attempt* ***any four*** *selecting one question from* ***each section.***

(iii) *Figures to the* ***RIGHT*** *indicate marks of the respective question.*

(iv) *Number of optional questions upto the prescribed number in the order in which they have been solved will only be assessed. Excess answers will not be assessed.*

(v) *Credit will be given for orderly, concise and effective writing.*

(vi) *Candidate should not write roll number, any name (including their own), signature, address or any indication of their identity anywhere inside the answer book otherwise he/she will be penalised.*

(vii) *For slab of 10 marks, the examinee is expected to write answers in 125 words.*

1. ***Answer any four of the following (10 marks each) :***

(a) Describe limbic system under following heads :

(i) Parts **2**

(ii) Connections and Circuits **4**

(iii) Functional Significance **4**

(b) What is erythropoiesis ? Describe the stages and factors affecting it. **10**

(c) Discuss the laboratory investigations in a case of acute myocardial infarction. **10**

(d) Enumerate organisms causing sexually transmitted infections. Discuss laboratory diagnosis of primary syphilis. **10**

(e) Enumerate drugs used in moderate hypertension. Describe mechanism of action of ACE inhibitors and its adverse drug reactions. What are its advantages over beta blockers ? **10**

P.T.O.

Marks

SECTION - A

2. *Answer the following sub-questions :*

(a) (i) Describe the Sinuses of Pericardium with suitable diagrams. **5**

(ii) Describe the walls of middle ear cavity and add applied importance. **5**

(b) Describe Venous drainage of Inferior extremity and add a note on its applied anatomy. **10**

(c) Describe in detail the development of Testis, its descent and its applied aspects. **10**

(d) (i) Classify joints with suitable examples. **5**

(ii) Explain in details Lyon's hypothesis with suitable examples. **5**

3. *Answer the following sub-questions :*

(a) Describe arches of foot with suitable examples and applied anatomy. **10**

(b) (i) Describe Broncho-Pulmonary segments with applied importance. **5**

(ii) Describe stomach bed with suitable figure. **5**

(c) (i) Intra-Embryonic Mesoderm. **5**

(ii) Notochord. **5**

(d) (i) Describe microscopy of Pituitary gland with suitable figure. **5**

(ii) Draw and label various symbols used in pedigree charts. **5**

SECTION - B

4. *Answer the following sub-questions :*

(a) (i) Clinical significance of Rh group. **4**

(ii) Dead space. **3**

(iii) Glomerular Filtration Rate **3**

(b) (i) Peristaltic movements of gastrointestinal tract. **3**

(ii) Myxedema. **4**

(iii) Difference between UMN and LMN lesion. **3**

(c) What are enzymes ? Describe their classification and nomenclature. Name the important serum enzymes used in diagnosis of diseases. **10**

(d) Define hormones. Give an account of mechanism of action of hormones acting through second messenger. **10**

Marks

5. *Answer the following sub-questions :*

(a) (i) Process of Coagulation of blood. **4**

(ii) Describe the ECG in Lead II. **3**

(iii) Heat gain and heat loss mechanisms. **3**

(b) (i) Digestion of Carbohydrates **3**

(ii) Physiological basis of action of oral contraceptive pills **4**

(iii) Photochemistry of vision. **3**

(c) Discuss the synthesis of glucose from non-carbohydrate sources. **10**

(d) What is Polymerase Chain Reaction (PCR) ? Write a note on application of PCR. **10**

SECTION - C

6. *Answer the following sub-questions :*

(a) Describe the healing of a clean uninfected surgical wound. **10**

(b) Enumerate the causes of nephrotic syndrome. Describe the pathogenesis morphology and clinical course of minimal change disease. **10**

(c) Define hypersensitivity. How do you classify various types of hypersensitivity reactions. Describe type I hypersensitivity reactions. **10**

(d) Enumerate protozoa pathogenic to man. Give laboratory diagnosis of intestinal amebiasis. **10**

7. *Answer the following sub-questions :*

(a) Describe the etiopathogenesis and laboratory findings in acute lymphoid leukemia. **10**

(b) Describe the etiology, morphology and CSF findings in acute pyogenic meningitis. **10**

(c) What is a carrier ? Name and define various types of carriers. **10**

(d) Enumerate the modes of transmission of HIV infection. Discuss the various opportunistic infections which can occur during the course of HIV infection. **10**

P.T.O.

Marks

SECTION - D

8. *Answer the following sub-questions :*

(a) (i) What is tolerance ? What is its importance ? Describe mechanisms of tolerance with examples. **3**

(ii) What are indications for parenteral iron therapy ? What are its disadvantages ? **3**

(iii) Describe mechanism of action and uses of carbamazepine. What precautions should be taken when the patient is on carbamazepine treatment ? **4**

(b) (i) Describe mechanism of action and uses of fluoroquinolones. **3**

(ii) Name selective estrogen receptor modulators and give their uses. **3**

(iii) Describe uses and adverse effects of oxytocin. **4**

(c) Define and classify Injuries. Discuss injuries caused by rifled fire arm and its investigations. **10**

(d) Discuss CIVIL and CRIMINAL Responsibility of mentally ill person. **10**

9. *Answer the following sub-questions :*

(a) (i) What is plasma half life ? What is its clinical importance ? **3**

(ii) Describe mechanism of action of calcium channel blockers. What is the disadvantage of verapamil over amlodipine ? **3**

(iii) Describe drug treatment of organophosphorus poisoning. Which drug will reverse CNS symptoms of organophosphorous compounds ? **4**

(b) (i) What is lepra reaction ? How will you treat it ? **3**

(ii) What is the mechanism of action of metformin ? What is its advantage over sulphonylureas ? **3**

(iii) Describe mechanism of action and therapeutic status of inhalational corticosteroids in bronchial asthma . **4**

(c) Define Death. What are the mode and manners of death ? How post mortem interval can be estimated ? **10**

(d) Define and classify poision. What are the laws related to poision ? Add a note on preservation of viscera. **10**

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