

MANIPAL ACADEMY OF HIGHER EDUCATION
FIRST MBBS DEGREE EXAMINATION – AUGUST 2020
SUBJECT: ANATOMY: PAPER – I (ESSAY)

Tuesday, August 04, 2020

Time: 10:20 – 13:00 Hrs.

Maximum Marks: 80

✍ **All questions are compulsory.**

✍ **Illustrate your answers with diagrams and flow charts wherever appropriate.**

1. Enumerate the dural venous sinuses. Describe the course, tributaries, communications and applied anatomy of the superior sagittal sinus.

(2+2+3+1+2 = 10 marks)

2. After a road traffic accident, a 47-year-old male was brought to the hospital with mid-shaft fracture of the humerus. Clinical examinations revealed loss of sensation on the dorsal surface of forearm, inability to extend the wrist and the distal phalanges but he was able to extend the elbow.

2A. Name the structure injured to cause the above said symptoms.

2B. Describe the origin, course and distribution of this structure

2C. Name the specific anatomical reasons for the above mentioned symptoms

(1+7+2 = 10 marks)

3. **Short notes:**

3A. Origin, insertion, action, nerve supply and applied anatomy of the lateral rectus muscle of the eye

3B. Origin, course, termination and applied anatomy of the external jugular vein

3C. Enumerate the layers of the deep cervical fascia. Explain the carotid sheath

3D. Draw a neat labeled diagram of the medulla oblongata at the level of the olive

3E. Describe the origin, course, termination and function of the spino-thalamic tracts

3F. Enumerate the boundaries, recesses and communications of the third ventricle of the brain

3G. Classify the white matter of the cerebrum. Draw a neat labeled diagram of the internal capsule to show its parts, contents and relations.

3H. Dentate nucleus of the cerebellum

3I. Describe the location, formation and branches of the superficial palmar arch

3J. Describe the boundaries, contents and applied anatomy of the carpal tunnel

3K. Histology of the tonsil

3L. Histology of the skeletal muscle

3M. Describe the formation and fate of the notochord

3N. Explain the formation and subdivisions of intra embryonic mesoderm

3O. Explain the reasons and consequences of non-disjunction of chromosomes

(4 marks × 15 = 60 marks)



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SUBJECT: ANATOMY: PAPER – II (ESSAY)

Wednesday, August 05, 2020

Time: 10:20 – 13:00 Hours

Maximum Marks: 80

- ✍ **All questions are compulsory. Write brief, clear, relevant and legible answers.**
✍ **Illustrate your answers with diagrams and flow charts wherever appropriate.**

1. Describe the anatomy of urinary bladder under:
 - 1A. External features
 - 1B. Relations
 - 1C. Ligaments supporting
 - 1D. Nerve supply
 - 1E. Applied anatomy

(2+3+2+2+1 = 10 marks)

2. A 20-year-old college student receives a severe blow on the posterolateral side of the left knee joint while playing football. Radiographic examination reveals a fracture of the head and neck of the fibula.
 - 2A. Which nerve is most likely to be injured in this case?
 - 2B. Describe the origin, course, divisions and distribution of this nerve.
 - 2C. Give the motor and sensory deficits likely to occur due to injury to the nerve involved in this case.

(1+6+3 = 10 marks)

3. **Write short notes on:**

- 3A. Boundaries and contents of superficial perineal space in male
- 3B. Hepatorenal pouch
- 3C. Inguinal herniae
- 3D. Blood supply of the stomach
- 3E. Thoracic duct
- 3F. Transverse sinus of pericardium
- 3G. Coronary sinus
- 3H. Ligamentum arteriosum
- 3I. Great saphenous vein
- 3J. Gluteus medius and minimus muscles
- 3K. Microscopic structure of the liver
- 3L. Microscopic structure of the lung
- 3M. Development of the kidney and its anomalies
- 3N. Development of the palate and its anomalies
- 3O. Epiphysis

(4 marks × 15 = 60 marks)

