# ANATOMY

## PAPER – I

**Time : 3 hours** **ANT/D/10/02/1**
**Max. Marks : 100**

**Attempt all questions in order.**
**Each question carries 10 marks.**

| | | |
|---|---|---|
| 1 | What is exostropy of the urinary bladder? Give the embryological basis of the anomaly. | 5+5 |
| 2 | What are the stages in the development of primary intestinal loop from midgut? Add a note on abnormalities associated with its rotation. Name the parts of gastro intestinal system developing from it. | 3+4+3 |
| 3 | Describe the development and congenital anomalies of thoraco-abdominal diaphragm. Add a note on hiatus hernia. | 4+3+3 |
| 4 | Describe the molecular regulation of development of eye. Correlate it with the anomalies of development. | 5+5 |
| 5 | Describe the formation, structure and blood circulation of placenta. Add a note on clinical importance of blood-placental barrier in maternal diseases. | 2+3+2+3 |
| 6 | What are the factors influencing foetal growth? What are the procedures for assessing foetal growth and anomalies? | 5+5 |
| 7 | What is the microscopic structure of Juxtaglomerular Apparatus in kidney cortex? State the features of the cells with their functional significance | 3+2+3+2 |
| 8 | Describe the microscopic structure of classical hepatic lobule, portal lobule and portal acinus. What is the functional significance in liver transplantation? | 2.5+2.5+2.5+2.5 |
| 9 | Describe the microscopic picture of compact bone under:<br>a. Types of lamellae<br>b. Cells of bone<br>c. Inorganic and organic components of matrix.<br>Add a note on microanatomy of fracture repair. | 2.5+2.5+2.5+2.5 |

**P.T.O**

10 Describe microscopic anatomy of lungs under the following headings: 4+4+2

a. Intrapulmonary passages
b. Structure of alveolar wall with cells forming lining epithelilum
c. Components of blood air barrier

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## PAPER – II

ANT/D/10/02/II

**Time : 3 hours**
**Max. Marks : 100**

**Attempt all questions in order.**
**Each question carries 10 marks.**

1 Describe the blood supply of the spinal cord. Add a note on clinical deficits resulting from vascular lesions. 6+4

2 Describe the cervical part of sympathetic chain under the following heads: 3+4+3
   a. Ganglia
   b. Connections
   c. Applied anatomy

3 Define lumbar puncture. Write the indications for performing this procedure. What structures are encountered by the needle while performing lumbar puncture? 2+4+4

4 Describe the various thalamic nuclei with their afferent and efferent connections. Add a note on thalamic syndrome. 7+3

5 Describe the Primary Visual Area under following headings: 1+5+2+2
   a. Location
   b. Visuotopic representation in visual area of right cerebral hemisphere
   c. Blood supply
   d. Vascular lesions and its consequences

6 Describe the components, connections and clinical anatomy of basal ganglia. 2+4+4

7 Trace the sensory pathways carrying general sensations from the region of Head, Neck and Face to cerebral cortex. 10

8 Draw labeled diagram to show the Transverse Section of pons at the level of facial colliculus. Add a note on Millard Gubler Syndrome. 6+4

P.T.O

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## PAPER – III

**Time : 3 hours**
**Max. Marks : 100**

**ANT/D/10/02/III**

**Attempt all questions in order.**
**Each question carries 10 marks.**

| | | |
|---|---|---|
| 1 | Describe the congenital inguinal hernia in brief. Add a note on its types. How will you differentiate it from direct inguinal hernia? | 4+4+2 |
| 2 | Describe the clinical syndromes associated with lesions of intervertebral disc. Add a note on sacralization of $5^{th}$ Lumbar vertebra. | 6+4 |
| 3 | Describe the anatomy of ischiorectal fossa. Add a note on anal fistulae and anal fissure. | 4+3+3 |
| 4 | Describe hydrocephalus. Add a note on anatomy of shunting procedures. | 6+4 |
| 5 | Describe the lymph nodes in the neck. Add a note on radical neck dissection. | 6+4 |
| 6 | Write anatomical basis of death by hanging. Which part of the central nervous system is involved? Write its blood supply. | 6+4 |
| 7 | Write the sequence of appearance of centres of ossification of carpal and tarsal bones. What is the medico-legal importance of their presence? | 6+4 |
| 8 | Illustrate with diagram the sites of portosystemic anastomosis showing portal and systemic components. Write anatomical basis of shunt operations in portal hypertension. | 5+5 |
| 9 | Describe cruciate ligaments of knee joint. How would you test the integrity of cruciate ligaments? Give their anatomical basis. | 6+4 |
| 10 | Describe anatomical basis of contraception in males and females. | 4+6 |

# ANATOMY

## PAPER – IV

**Time : 3 hours** **ANT/D/10/02/IV**
**Max. Marks : 100**

**Attempt all questions in order.**
**Each question carries 10 marks.**

**Write short notes on:**

1 Describe a lymph node with specific reference to its: 5+2.5+2.5
   a. Cellular zones
   b. Lymphatic flow
   c. Vascular supply

2 Describe the Brachial plexus under the following headings: 2+3+5
   a. Formation
   b. Branches
   c. Deficits resulting from damage to median nerve above the elbow joint

3 Write a note on specialized adhesive contacts of cells with reference to: 2+4+4
   a. Their types
   b. Structural characteristics
   c. Specific functions

4 Describe prostate gland under the following headings: 3+4+3
   a. Location
   b. Parts and relations
   c. Age changes

5 Describe stomach under the following heads: 4+3+3
   a. Blood supply
   b. Lymphatic drainage
   c. Applied anatomy

6 Describe the arterial supply of a growing long bone. Add a note on its clinical significance. 5+5

7 Describe vocal cords under the following headings: 2+5+3
   a. Parts
   b. Movements and muscles causing them with their nerve supply
   c. Clinical anatomy

8 Describe the fibrous skeleton of the heart. Add a note on its applied anatomy. 7+3

**P.T.O**

9 Write the anatomical basis of evaluation of various neurological reflexes of the lower limb. Add a note on dermatomes of lower limb. 7+3

10 Write the anatomical basis of epistaxis. With the help of a diagram, illustrate the site and arteries participating in the anastomosis at Little's area. 5+5