

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

Monday, October 12, 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. A student yawned widely during an afternoon class. Following which to his surprise, he could not close his mouth. His jaw was stuck and he was rushed to the hospital.

1A. Name the joint that would have been dislocated

1B. Give the type of the joint, describe the bones and the ligaments taking part in it

1C. Name the movements of the joint and the muscles responsible for them

(1+4+5 = 10 marks)

2. Describe the brachial plexus in detail. Add a note on its applied aspects.

(7+3 = 10 marks)

3. **Short answers:**

3A. Nerve supply and blood supply of the scalp

3B. Lateral pterygoid muscle

3C. Lacrimal gland

3D. Lymphatic drainage of the breast

3E. Superficial palmar arch

3F. Microscopic structure of the optic nerve

3G. Microscopic structure of cardiac muscle

3H. Primitive streak

3I. Oogenesis

3J. Karyotyping

3K. Interpeduncular fossa

3L. Lateral medullary syndrome

3M. Blood supply of the internal capsule

3N. Third ventricle

3O. Labelled diagram showing the transverse section of the mid brain at the level of superior colliculus

(4 marks × 15 = 60 marks)



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**SUBJECT: ANATOMY: PAPER – II (ESSAY)**

Tuesday, October 13, 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 right atrium of the heart under: External features, internal features and development. Add a note on coronary sulcus.

(2+4+1+3 = 10 marks)

2. A 60 year old woman visited the doctor with complaints of something coming down her vagina and low backache. She had attained menopause 10 years ago and her obstetric history revealed that she had 4 vaginal deliveries. On examination the lower end of cervix was found to be at the level of vaginal orifice.

Based on the anatomy of this region, describe the organ involved under the following headings:

- 2A. Name of the organ and its parts  
 2B. Relations  
 2C. Arterial supply  
 2D. Supports

(2+3+1+4 = 10 marks)

3. **Write short notes on:**

- 3A. Origin, course, branches and distribution of superficial peroneal nerve  
 3B. Development and developmental anomalies of pancreas  
 3C. Boundaries and contents of adductor canal  
 3D. Portocaval anastomosis  
 3E. Microscopic structure of oesophagus  
 3F. Relations of right kidney  
 3G. Attachment and contents of lesser omentum  
 3H. Enumerate the mesodermal derivatives of first pharyngeal arch  
 3I. Structure of secondary cartilaginous joint with examples  
 3J. Course and branches of a typical intercostal nerve  
 3K. Dorsalis pedis artery  
 3L. Prostatic part of urethra  
 3M. Histology of thyroid gland  
 3N. Saphenous opening  
 3O. Draw a neat labeled diagram of mediastinal surface of left lung

(4 marks × 15 = 60 marks)

