



**All India Institute of Medical Sciences, Kalyani**  
**First Professional MBBS Examination 2022 (Batch-2021)**

**Time: 3 Hrs.**

**Anatomy (Paper-I)**

**Marks: 100**

**INSTRUCTIONS:**

- Answer all questions.
- Illustrate your answers with well labelled diagram wherever necessary.
- Answer each section in a separate answer book.

**SECTION - A (50 MARKS)**

**Long answer question:**

**[4+1+3+2=10]**

1. A football player sustained a hit on the posterolateral side of right knee by the opponent while playing. At the time of hit, the right foot was firmly planted on the ground. The right leg abducted and the knee gave way and the player fell on the field with severe pain. He was taken to a nearby hospital. On examination, there was severe pain on the medial side of right knee, and drawer test was positive. There was no fracture in plain X-ray of the knee joint.
  - a. Enumerate the ligaments of the knee joint and mention attachments of any one of them.
  - b. Name the bones forming the knee joint.
  - c. Mention the movements of the knee joint and muscles causing them.
  - d. Explain why the lateral meniscus is not as easily injured as the medial meniscus.

**Write Short notes on:**

**[5X5=25]**

2. Autosomal dominant inheritance with example.
3. Injuries affecting the trunks of brachial plexus and its effect.
4. Microscopic anatomy – epithelium types with example.
5. In a case of carcinoma breast, explain the anatomical basis of - Retraction of nipple, dimpling/retraction of skin, peau d'orange or pitting of the skin.
6. Describe briefly – implantation of ovum. Enumerate the abnormal sites of implantation.

(3+2)

**Answer in brief:**

**[5x3=15]**

7. Formation, termination and applied importance of great saphenous vein.
8. Carpal tunnel syndrome-applied anatomy.
9. Mention three microscopic features of skeletal muscles.
10. Supination & Pronation in upper limb.
11. Explain why metaphysis is the common site of infection in children.

**SECTION - B (50 MARKS)**

**Long answer question:**

**[1+3+2+4=10]**

1. Describe the formation, course and relations, tributaries of portal vein. Add a note on sites of portosystemic anastomoses and their applied anatomy.

**Write Short notes on:**

**[5X5=25]**

2. Microscopic structure of fundus of stomach.
3. An infant was brought to the hospital with history of leakage of urine from umbilicus. Explain this congenital anomaly with a brief description of development of urinary bladder.
4. Anatomical mechanisms that maintain the integrity of inguinal canal with protective mechanism against formation of inguinal hernia. Compare and contrast direct and indirect inguinal hernia. (3+2)
5. Supports of uterus.
6. Enumerate the major openings of the thoraco-abdominal diaphragm and structures passing through. Add a note on development of diaphragm. (3+2)

**Answer in brief:**

**[5x3=15]**

7. Lymphatic drainage of stomach.
8. Blood supply of anal canal.
9. With a schematic diagram, depict anterior relations of right and left kidneys.
10. Second part of duodenum: relations and development. (2+1)
11. Applied anatomy of prostate gland.

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