

Rajiv Gandhi University of Health Sciences, Karnataka

MBBS Phase - I (CBME) Degree Examination - 10-Feb-2021

Time: Three Hours

Max. Marks: 100 Marks

ANATOMY - PAPER - II (RS-4)**Q.P. CODE: 1021****(QP contains two pages)**

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary.

LONG ESSAYS**2 x 10 = 20 Marks**

1. A 14-year-old boy came with altered gait a few hours after an injection in his right buttock. On clinical examination he was found to be having right foot drop.
 - a. What is the anatomical basis for the boy's symptoms? (2)
 - b. Describe the following structures under the cover of the gluteus maximus muscle
(i) Vessels (4-4⁴)
(6) Nerves
2. Draw a neat labelled diagram to show the components of the extra-hepatic biliary system. (2)
Describe the gall bladder under the following headings:
(a) Location; (b) Parts; (c) Relations; (d) Blood supply; (e) Applied anatomy (1+1+3+2+1)

SHORT ESSAYS**10 x 5 = 50 Marks**

3. A 23-year-old female came to the emergency department with an injury to the middle of the right groin region. On examination, there was a deep lacerated wound just below the middle of the right *inguinal* ligament. Describe the structures at risk in this region and their relations. Describe the boundaries of the triangle in this region. (3+2)
4. A 26-year-old male presented to the emergency department with complaints of pain in the umbilical region which later shifted to the right iliac fossa. There was tenderness elicited at McBurney's point. A clinical diagnosis of acute appendicitis was made.
 - (a) Explain the anatomical basis of the pain that was initially felt in the umbilical region.
 - (b) Explain why the pain later shifted to the right iliac fossa.
 - (c) What is McBurney's point and its clinical importance?
 - (d) Describe the positions of the appendix.
 - (e) Describe the arterial supply of the appendix. (1+1+1+1+1)
5. Describe the layers and attachment of the thoracolumbar fascia. (3+2)
6. Describe the relations of the abdominal parts of both ureters and their arterial supply. (3+2)
7. Compare and contrast the features of the male and female bony pelvis.
8. Describe the perineal membrane and the structures piercing it in males and females. (3+1+1)

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9. Describe the supports of the urinary bladder.
10. Compare and contrast the features of autosomal dominant and autosomal recessive inheritance.
11. Correlate the microstructure and functions of the adrenal cortex.
12. Describe the development of the kidney. Explain the embryological basis of congenital polycystic kidney. (4+1)

SHORT ANSWERS

10 x 3 = 30 Marks

13. The obturator nerve was injured in an anterior dislocation of hip joint. All the muscles supplied by this nerve were paralyzed except part of one muscle. Which muscle is this and what is the anatomical basis? Enumerate the muscles supplied by the obturator nerve. (2+1)
14. Describe the lymphatic drainage of the stomach.
15. Describe the interior of the second part of the duodenum.
16. Describe briefly the boundaries and contents of the pudendal canal. (2+1)
17. Describe the peritoneal relations of the rectum and their clinical importance. (2+1)
18. Explain the mechanism of meiotic non-disjunction and its consequences. (2+1)
19. Describe the structure and functions of Sertoli cells.
20. Describe the histological appearance of thyroid follicles in different stages of activity.
21. Explain the embryological basis of Meckel's diverticulum.
22. Explain the embryological basis of trachea-oesophageal fistula.