

**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. Describe the anatomy of duodenum under the following headings
  - a) Presenting parts
  - b) Relations
  - c) Blood supply
  - d) Development
2. A 60 year old female patient had a fall in the bathroom. She was brought to the casualty with severe pain in the right hip joint. X-ray revealed fracture of necks of right femur. In due course, she developed avascular necrosis of head of femur.
  - a) Mention the anatomical basis for avascular necrosis of head of femur.
  - b) Describe the anatomy of the hip joint under the following headings:
    - i. Articulating surfaces and type of joint
    - ii. Ligaments and Relations
    - iii. Movements and Muscles causing them
    - iv. Blood supply

**SHORT ESSAYS****8 x 5 = 40 Marks**

3. Describe the attachments and contents of broad ligament
4. Describe the attachments, openings and action of Pelvic diaphragm
5. Describe the microscopic structure of Vas deferens with a diagram
6. Describe the development of testis and factors responsible for its descent
7. Describe the formation, course, relations and tributaries of portal vein
8. Compare and contrast the karyotype and clinical features of Turner and Klinefelter syndrome
9. Describe the parts, relations, blood supply and functions of Gall bladder.
10. Describe the boundaries and contents of Deep Perineal pouch.

**SHORT ANSWERS****10 x 3 = 30 Marks**

11. Mention the parts of male urethra.
12. Draw a neat labelled diagram showing arterial supply of large intestine.
13. Mention the boundaries of Hesselbach's Triangle
14. Mention the attachments and nerve supply of tensor fascia lata
15. Mention the structures passing deep to flexor retinaculum of foot
16. List any three differences between male and female bony pelvis
17. Name the cells of gastric glands and their functions
18. List any three derivatives of Hindgut
19. Draw a neat labelled diagram showing different positions of appendix
20. Draw a neat labelled diagram of microscopic structure of kidney.



Multiple Choice Questions

10 x 1 = 10 Marks

- 21 i) All are the features of Lyon's hypothesis, **EXCEPT**  
A. out of 2X chromosomes, one becomes inactive  
B. Inactivation occurs after birth  
C. Inactivation occurs in early embryonic life  
D. Inactivated chromosomes may be maternally or paternally derived
- 21 ii) Which of the following forms the blood-testis barrier?  
A. Interstitial cells of Leydig  
B. Spermatocytes  
C. Sertoli cells  
D. Spermatogonia
- 21 iii) Which of the following is a derivative of Wolffian duct  
A. Uterus  
B. Fallopian tube  
C. Testis  
D. Vas deferens
- 21 iv) Inferior mesenteric artery arises from abdominal aorta at the level of  
A. T<sub>12</sub>  
B. L<sub>1</sub>  
C. L<sub>2</sub>  
D. L<sub>3</sub>
- 21 v) One of the following is a feature of internal hemorrhoids  
A. Is formed below the Hilton's line  
B. Is formed above pectinate line  
C. Is covered by skin  
D. Occurs due to thrombosis of external rectal venous plexus
- 22 i) Which is the key - stone of medial longitudinal arch of foot  
A. Calcaneum  
B. Talus  
C. Navicular  
D. Cuboid
- 22 ii) Which ligament connects menisci to tibia  
A. Transverse ligament  
B. Oblique Popliteal ligament  
C. Arcuate Popliteal ligament  
D. Coronary ligament
- 22 iii) The third part of duodenum is crossed by  
A. Superior mesenteric artery  
B. Inferior mesenteric artery  
C. Gastro duodenal artery  
D. Superior pancreaticoduodenal artery
- 22 iv) Which of the following muscle is a true hamstring?  
A. Short head of biceps femoris  
B. Semimembranosus  
C. Both A & B  
D. Adductor magnus
- 22 v) Levator ani is **NOT** formed by  
A. Coccygeus  
B. Puborectalis  
C. Iliococcygeus  
D. Pubococcygeus

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