

**ANATOMY**  
**PAPER – I**

ANT/D/15/02/I

Time : 3 hours  
Max. Marks : 100

**Important instructions:**

- Attempt all questions in order.
- Each question carries 10 marks.
- Read the question carefully and answer to the point neatly and legibly.
- Do not leave any blank pages between two answers.
- Indicate the question number correctly for the answer in the margin space.
- Answer all the parts of a single question together.
- Start the answer to a question on a fresh page or leave adequate space between two answers.
- Draw table/diagrams/flowcharts wherever appropriate.

**Write short notes on:**

1.	Chronological events happening during “Gastrulation” and its molecular regulation.	7+3
2.	Development of para mesonephric duct and its associated anomalies.	6+4
3.	a) Development of subclavain arteries. b) Mechanism of development of retropharyngeal right subclavain artery.	5+5
4.	a) Rotation of midgut loop. b) Give the adult picture of following rotational events: i. Non rotation. ii. Rotation through 90° anti-clockwise.	6+(2+2)
5.	Development and microanatomy of palatine tonsil.	4+6
6.	a) Describe the gastric glands. b) Special stains that help indentify various cell types of gastric glands.	7+3
7.	a) Structure of juxtaglomerular apparatus in kidney. b) What is its functional significance?	6+4
8.	Microanatomy of hypophysis cerebri and functions of its cell types.	7+3
9.	Endochondral ossification along with its molecular regulation.	7+3
10.	a) Radiological techniques for visualization of biliary system. b) Draw a labeled diagram to illustrate the cross sectional anatomy at the level of lower border of 4 <sup>th</sup> thoracic vertebra.	6+4

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