

PHYSIOLOGY

PAPER – IV

PHY/D/15/36/IV

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.	a) Gastro esophageal reflux in health. b) Pattern and factors affecting 24 h pH monitoring of distal esophagus.	5+5
2.	a) Mention the composition of hepatic and gall bladder bile. b) Chemistry, enterohepatic circulation and effects of deficiency of bile salts.	2+(2+3+3)
3.	a) Which type of cells of pancreas produces glucagon? b) Insulin-Glucagon molar ratio and factors affecting it.	1+2+7
4.	What is the cause of primary aldosteronism? Which layers of adrenal cortex is affected? What are its effects and diagnostic criteria? How will you manage it?	2+2+(2+2)+2
5.	Neurohormonal basis of puberty in males.	10
6.	Define feto placental-maternal unit. What is its role in placental progesterone synthesis? How is the placental progesterone synthesis different from ovarian progesterone synthesis?	2+3+5
7.	a) Factors influencing the secretion of gonadotrophins. b) Compare and contrast the pattern of secretion of gonadotrophins in males and females.	4+6
8.	a) Role of thyroid hormone on Central Nervous System. b) Physiological basis of mental retardation in cretins.	4+6
9.	a) What are the important signs and symptoms of diabetes mellitus? Give their physiological basis. b) Recent advances in physiological basis of management of diabetes mellitus.	(3+3)+4
10.	Compare and contrast between functioning of Meissner's and myenteric plexus.	5+5
