

FINAL EXAM
 DECEMBER 2015

NATIONAL BOARD OF EXAMINATIONS

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:

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| 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 fetoplacental-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 |
