



**ENDOCRINOLOGY**

**PAPER – I**

ENDO/D/14/07/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.

1. Outline the various methods used for measurement of HbA<sub>1C</sub> (glycosylated haemoglobin); the associated false positives and the methods for quality assurance. 10
2. Outline the methods for screening for familial and inherited pheochromocytoma syndromes, with regards to inheritance patterns. What are the mutations associated and their genetic loci? 10
3. Outline the clinical profile and mutations associated with Maturity Onset Diabetes of the Young (MODY). 10
4. What are the types of clinical trials? What is meant by Phase 1, Phase 2, Phase 3 & Phase 4 clinical trials? 10
5. Write note on the hormonal pathways which are causally associated with obesity. 10
6. Describe the pathogenetic mechanisms in the clinical evolution of diabetic ketoacidosis. 10
7. Describe the role of transcription factors in the causation of congenital hypopituitarism. Describe the phenotypic association of each transcription factor anomaly in this disease state. 10
8. Describe and outline the causes for congenital and acquired growth hormone resistance. 10
9. Outline the methodology and steps in doing a radioimmunoassay. What are the safety measures and drawbacks? 10
10. Outline the endocrinology and biochemistry involved in normal parturition. 10

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