

Roll No. ....

Total Pages : 2

**CMDQ/D-23**

**5168**

## **MOLECULAR ENDOCRINOLOGY**

Paper–M–Z–302

Time allowed : 3 Hours]

[Maximum Marks : 80

**Note :** Attempt **five** questions in all, selecting **one** question from each unit. Questions No. **1** is compulsory.

### **Compulsory Question**

1. Explain the following:
  - (i) Differentiate between glycosylation and glycation. 3
  - (ii) Hormone response element. 2
  - (iii) Somatotropins. 2
  - (iv) Kinins. 2
  - (v) CREB. 2
  - (vi) VIP. 2
  - (vii) Eicosanoids and their derivatives. 3

### **UNIT-I**

2. Define a hormone and write about the criteria used in the classification of hormones. Add suitable example. 16
3. Describe in detail the biosynthesis and secretion of thyroid hormones. 16

### **UNIT-II**

4. Discuss in detail the role of hormones in the generation and transduction of cell signals. 16

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5. Describe the pathway adopted by the body during synthesis of prostaglandins. Add a short note on the biological activity of this product. 16

### **UNIT-III**

6. Discuss in detail the role of hormones in regulation of lipid and protein metabolism. 16
7. Describe endocrine regulation of calcium and phosphate homeostasis in mammals. 16

### **UNIT-IV**

8. Explain the genetic bases of PCOS and pituitary dwarfism. 16
9. Explain the following:
  - (i) Cytosolic receptor proteins. 8
  - (ii) Thymus gland. 8

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