**ST. JOSEPH’S UNIVERSITY, BENGALURU -27**

Registration Number:

Date & session:

**M .Sc., (ZOOLOGY) – III SEMESTER**

**SEMESTER EXAMINATION: OCTOBER 2023**

**(Examination conducted in November/December 2023)**

**ZO 9123 –GENERAL AND MOLECULAR ENDOCRINOLOGY**

**(For current batch students only)**

**Time: 2 Hours Max Marks: 50**

**This paper contains TWO printed pages and FOUR parts**

**Illustrate the answers wherever necessary.**

**PART - A**

**Answer ALL of the following: 5 x 1 = 5**

1. What are Chalones?
2. How diabetes mellitus is different from diabetes insipidus?
3. What is hormone replacement therapy?
4. Juvenile hormone of insect is secreted from ---------.
5. What is the normal range of serum calcium level in healthy human adults?

**PART - B**

**Answer ALL of the following 5 x 2 = 10**

1. List four different types of melatonin receptors.
2. Write the flow chart of Eicosanoid bio-synthesis
3. Cushing’s syndrome.
4. Draw a neat labelled diagram of hypothalomo-hypophysial portal system
5. Write down the principle of RIA

**PART - C**

**Answer any THREE of the following 3 x 5 = 15**

1. Explain the secretion of insulin in beta cells under hyperglycaemia with molecular mechanism.
2. Explain termination of hormone action
3. What are feedback mechanisms, explain feedback mechanism in HPA axis with schematic representation.
4. Describe the development of pituitary gland in mammals.
5. Describe neuro-endocrine integration of Milk ejection reflex.

**PART - D**

**Answer any TWO of the following 2 x 10 = 20**

1. Describe molecular events involved in peptide hormone secretion and delivery
2. Explain the biochemistry of synthesis and secretion of thyroid hormones
3. Explain calcium homeostasis

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