

SZ S 223 SYLLABUS

8. GENERAL AND COMPARATIVE ENDOCRINOLOGY

Unit - I :

- 1.0 Aims and scope of endocrinology
  - 1.1. Hormones as messengers
  - 1.2. Hormones and eukaryotic metabolic regulation
  - 1.3. Classification of hormones
  - 1.4. Discovery of hormones
  - 1.5. Experimental methods of hormone research
- 2.0. Phylogeny of endocrine glands (Pituitary, pancreas, adrenals, thyroid)
- 3.0. Ontogeny of endocrine glands

Unit - II :

- 4.0. Concept of Neurosecretion and Neuro-endocrine system in invertebrate groups
  - 4.1. Neuro-endocrine mechanisms of moulting and growth in crustaceans
  - 4.2. Hormonal control of reproduction and moulting in insects
  - 4.3. Hormonal control of reproduction in Mollusca and Echinodermata

Unit - III :

- 5.0. General principles of hormone action
  - 5.1. Concept of hormone receptors
  - 5.2. Nature of hormone action, Steroid and protein hormones
  - 5.3. 1<sup>st</sup> messenger, 2<sup>nd</sup> messenger concept
  - 5.4. Hormonal control of homeostasis
  - 5.5. Hormonal regulation of carbohydrate metabolism
  - 5.6. Hormonal regulation of nitrogen and lipid metabolism

Unit - IV :

- 6.0. Hormone structure and Biosynthesis of hormones

PLEASE SET TWO DIFFERENT  
QUESTION PAPERS.  
KINDLY ADHERE TO THE  
SYLLABUS STRICTLY.



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