

## **M-6543**

### **M.Sc. (IV<sup>th</sup> Semester) Examination, 2020 ZOOLOGY**

**(Comparative Endocrine Physiology)**

*Time Allowed : Three Hours*

*Maximum Marks : 70*

*Minimum Pass Marks : 28*

**Note :** Attempt any one question taking one from each unit. Each question carry equal marks.

#### **Unit - I**

**Q. 1.** Define the term endocrinology. Add a short account of endocrine system. Add a note on various modes of hormone secretion. **10+4=14**

**Or**

Comment on endocrine control of reproduction in nemer teans and molluscs. **7+7=14**

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**P.T.O.**

**(2)**

#### **Unit - II**

**Q. 2.** Provide a brief illustration about Urophysis. Add a note on physiological functions of pituitary hormones. **6+8=14**

**Or**

Give a short account of structural diversity of glucocorticoids among vertebrates. State the role of glucocorticoid in gluconeogenesis. **10+4=14**

#### **Unit - III**

**Q. 3.** Mention the hormonal regulation of water and electrolyte balance. Add a note on importance of adrenocortical and adrinomedullary interaction. **8+6=14**

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**Or**

Briefly discuss the physiological role of adrenal medullary hormones. Write a short note on catecholamine biosynthesis. **8+6=14**

**Unit - IV**

- Q. 4.** Give a comparative account of parathyroid gland and ultimobranchial body / C cells in vertebrates. Add a note on "calcitonin biosynthesis". **10+4=14**

**Or**

Briefly describe the biosynthetic pathway of vitamin D<sub>3</sub>. Add a note on various sources of vitamin D. **10+4=14**

**Unit - V**

- Q. 5.** Explain the role of hormones in vitellogenesis. Comment on evolution of viviparity. **8+6=14**

**(4)**

**Or**

State the role of hormones on the following : **7+7=14**

- (a) Gall bladder contraction relaxation  
(b) Pancreatic enzyme secretion

