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**ZOS 454**

**Second Semester M.Sc. Examination, September/October 2022**  
**(CBCS)**  
**ZOOLOGY**  
**Comparative Physiology**

Time : 3 Hours

Max. Marks : 70

***Instructions :*** 1) Answer ***all*** questions.  
2) Give illustrations ***wherever*** necessary.

I. Write short notes on : **(5×2=10)**

- a) Cholecystokinin.
- b) Dead space.
- c) Distal convoluted tubule.
- d) Catecholamines.
- e) Pineal gland.

II. a) Write an account on digestion and absorption of lipids. **12**

OR

Write notes on :

- b) Inflammatory Bowel's disease.
- c) Absorption of carbohydrates.

III. a) Give a detailed account of physiology of O<sub>2</sub> and CO<sub>2</sub> transportation. **12**

OR

Write notes on :

- b) Dissociation curve.
- c) Tidal volume.



**IV. a) Explain osmoregulation in aquatic animals.**

**12**

**OR**

Write notes on :

- b) Uricotelism.
- c) Tubular secretion.

**V. a) Give an account of endocrine regulation in insect metamorphosis.**

**12**

**OR**

Write notes on :

- b) Mechanism of action of water soluble hormone.
- c) Storage and secretion of hormones.

**VI. a) Describe the molecular mechanism of fertilization in mammals.**

**12**

**OR**

Write notes on :

- b) Types of ovarioles.
  - c) Intrauterine devices.
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