

6/H-63 (vii) (Syllabus-2015)

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(May/June)

ZOOLOGY

(Honours)

**(Biochemistry, Animal Physiology and
Endocrinology)**

Marks : 56

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

Answer Question No. 1 and any four from the rest

1. Answer any three of the following : 4×3=12

- (a)** Discuss the importance of pH regulation in the body fluid and cellular systems.
- (b)** Describe the process of gaseous exchange through gills in fish.
- (c)** Write a note on placental hormones.
- (d)** Describe the structure of glycogen and hyaluronic acid.
- (e)** Describe in brief, the process of regulation of lactation in mammals.

(2)

2. Explain with Michaelis-Menten plot how variations in substrate concentration can influence the rate of an enzymatic reaction. Add a note on the significance of K_m . 7+4=11
3. Describe how electrons flow through different respiratory complexes. Add a note on the phosphorylation of ADP to ATP. 7+4=11
4. What is blood pressure? Explain the mechanism of regulation of blood pressure in mammals. 2+9=11
5. (a) Describe the hormones of the gastrointestinal tract and their functions. 5½
- (b) Describe the mechanism of action of steroid hormones. 5½
6. Give an account of various physiological changes that take place during menstrual cycle in human. 11
7. (a) Distinguish between endocrine and paracrine hormones. 5
- (b) Describe the process of embryo transfer technology. 6

(3)

8. Write notes on any *two* of the following : 5½×2=11
- (a) Enzyme inhibition
- (b) Glycogenesis
- (c) Osmoregulation in fish

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