

**THIRD SEMESTER B.Sc. DEGREE EXAMINATION**  
**NOVEMBER 2010**

(CCSS)

## Zoology— Complementary Course

**Z03 C05 – PHYSIOLOGY, TOXICOLOGY, ETHOLOGY**

## Time Free Hours

**Maximum Weightage : 30**

**Answer may be written either in English or in Malayalam.**

*Give illustrations wherever necessary.*

**I. Answer all *twelve* questions. Each question carries  $\frac{1}{4}$  weight**

**A. Objective type question.**

1. Ammonia is converted into urea in
  - (a) Kidney.
  - (b) Liver.
  - (c) Spleen.
  - (d) None of these.
2. Amount of  $\text{CO}_2$  in air is
  - (a) 3%.
  - (b) 0.3%.
  - (c) 0.03%.
  - (d) 0.0003%.
3. Which term is used to describe the action of bile salts on fat?
  - (a) Hydrolysis.
  - (b) Emulsification.
  - (c) Saponification.
  - (d) Dehydration.
4. pH of blood is nearly
  - (a) 6.8.
  - (b) 7.0.
  - (c) 7.4.
  - (d) 7.9.

**B. Name the following.**

- 5. Hormone secreted by the duodenum which inhibits gastric secretion.**
- 6. Sites where protein synthesis takes place in a nerve cell.**
- 7. Fastest enzyme in the human body.**
- 8. Double helical protein associated with the actin molecule of muscle cell.**

### C. Fill up the blanks.

9. Reflex action is controlled by \_\_\_\_\_
10. Renal pyramid lies in the \_\_\_\_\_ part of the kidney.
11. The process in which chloride ions pass into **RBC** and  $\text{HCO}_3$  pass out is called \_\_\_\_\_
12. The nerve plexus lying between circular and longitudinal muscles of the gut wall is called \_\_\_\_\_

(12 x 1/4 = 3 weightage)

**Turn over**

**II. Short answer questions. Answer all *nine* questions**

13. Name the hormones which control kidney function. Mention their role.
14. Mention the importance of active transport.
15. Define *uricotelism* with a suitable example.
16. What is territoriality?
17. Explain 'cardiac cycle'.
18. What is myocardial infarction?
19. Write down the factors which maintain normal arterial pressure.
20. What are heavy metals?
21. Explain the term 'hibernation'. Name an animal which exhibits hibernation.

(9 x 1 = 9 weightage)

**III. Short answer questions. Answer any *five* questions**

22. Synaptic transmission.
23. Importance of fibre in diet.
24. Chloride shift.
25. Granulocytes.
26. Heart lung machine.
27. Circadian rhythm.
28. All or none law.

(5 x 2 = 10 weightage)

**N. Essay questions. Answer any *two* questions :**

29. Physiology of muscle contraction.
30. Mechanism of blood coagulation.
31. Urea cycle.

(2 x 4 = 8 weightage)