OCTOBER 2011 **P/ID 40310/PZLH**

Time : Three hours Maximum : 100 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 50 words.

Define/Explain the following :

1. 'Milieu interior'.
2. Anaemia.
3. Lung fishes.
4. Blood clot.
5. Ammonia gas excretion.
6. Stenohaline forms.
7. Action potential.
8. Ecdysone.
9. Tangoreceptors.
10. Anadromous migration.

PART B — (5 × 6 = 30 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 250 words.

11. (a) Discuss the scope and significance of physiology.

Or

(b) Explain the roles of gastrin, secretin and cholecystokinin.

12. (a) Explain the double-pump mechanism in teleostean gills.

Or

(b) List down the components of blood and their functions.

13. (a) Explain the patterns of nitrogen excretion.

Or

(b) Explain Osmo-iono regulation in birds.

14. (a) Explain the role of adeno-hypophysial hormones.

Or

(b) Describe synaptic transmission.

15. (a) Describe the structure and function of inner ear.

Or

(b) Write a note on aestivation.

PART C — (5 × 10 = 50 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 500 words.

16. (a) Discuss the role of enzymes in digestion of man.

Or

(b) Explain the role of blood in transport of gases.

17. (a) Describe the phases of a heart beat.

Or

(b) Describe the structure and function of a nephron.

18. (a) Compare osmo-regulation in marine and fresh water teleosts.

Or

(b) Explain the physiology of muscle contraction.

19. (a) Write an account on endocrine disorders in man.

Or

(b) Describe the physiology of vision.

20. (a) Write an account on biorhythyms and biological clocks.

Or

(b) Explain the mechanism of thermoregulation in homeotherms.

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