

MAY 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. Comparative physiology.
2. Trace elements.
3. Cutaneous respiration.
4. Accessory hearts.
5. Excretion of ammonia gas.
6. Tri methyl amine oxide.
7. Neuro transmitter.
8. Y-organ.
9. Olfactory receptor.
10. Rheotaxis.

PART B — (5 × 6 = 30 marks)

Answer ALL questions.

All questions carry equal marks.

Each answer should not exceed 250 words.

11. (a) Explain any three major divisions of physiology and comment on their scopes.

Or

- (b) Mention the nutritional role of vitamins.

12. (a) Explain ventilation in fishes.

Or

- (b) Explain the composition of blood and the role of each component.

13. (a) Write a note on the different modes of excretion.

Or

- (b) “Crustaceans show a variety of osmotic behavior” – Explain.

14. (a) Explain the types of neurons.

Or

- (b) Describe the structure of human ear.

15. (a) Write a brief note on Neuro secretion.

Or

(b) Explain the physiology of diapause.

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 hormones in the coordination of digestion.

Or

(b) Describe the physiology of respiration in man.

17. (a) How does heart beat originate? Add a note on the conduction and regulation of heart beat.

Or

(b) How is urine formed? How is it regulated? Explain both.

18. (a) Explain the physiology of vision in man.

Or

(b) Describe the physiology of muscle contraction.

19. (a) Describe endocrine related disorders and diseases in man.

Or

- (b) Describe the mechanism of thermo regulation in homeotherms.

20. (a) Explain osmo-iono regulation in Fresh-water and Marine teleosts.

Or

- (b) What is a biological clock? Describe any two types of biorhythms.
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