

(2010 - Scheme)

HUMAN ANATOMY AND PHYSIOLOGY

Time: 3 Hours

Total Marks: 100

- Answer all Questions.
- Draw diagrams wherever necessary.

Essay

(3x10=30)

1. Discuss the different phases of action potential in nerve fibers. Enlist the differences between action potential and graded potential.
2. Define cardiac output stating its normal value. Discuss the factors affecting stroke volume and heart rate.
3. Describe the steps involved in hemopoiesis. Mention the normal ranges of RBC and WBC.

Short notes

(14x5=70)

4. Mechanical and chemical digestion in stomach.
5. Explain visual pathway with help of a flow chart.
6. Basic transport mechanisms through a cell membrane.
7. Explain the process of urine formation. Name various hormones that regulate composition of urine.
8. Explain the salient features of facial bones.
9. Role of various enzymes in carbohydrate metabolism.
10. Describe the physiological role of insulin and name one disease that results from insulin resistance.
11. Describe various parts of respiratory system with a neat diagram.
12. Describe the electrophysiology of muscle contraction.
13. Outline the steps involved in oogenesis..
14. Physiology of hearing.
15. Summarize the functions of cerebellum.
16. Describe the physiological role of renin-angiotensin system (RAS) and its pathological implication in the development of hypertension.
17. Compare and contrast the different types of muscular tissues.