

**(2010 - Scheme)**

**HUMAN ANATOMY AND PHYSIOLOGY**

**Time: 3 Hours**

**Total Marks: 100**

- Answer all Questions.
- Write equations wherever necessary.

**Essay**

**(3x10=30)**

1. Draw a neat labeled diagram of animal cell and describe all the organelles present in the cell
2. Explain the neural and hormonal mechanisms for regulation of blood pressure
3. Explain the synthesis, storage and secretion of thyroid hormones

**Short notes**

**(14x5=70)**

4. Explain the exchange of gases in external and internal respiration.
5. Explain the physiology of hearing.
6. Compare and contrast graded potential and action potential in nervous tissue.
7. Describe the functions of liver.
8. Define homeostasis. Add a note on negative and positive feedback systems in human body.
9. Principle involved in blood grouping.
10. Compare and contrast the different types of muscular tissue.
11. Describe the functions of kidney.
12. Mechanisms of skin in thermoregulation.
13. Explain the physiology of menstruation.
14. Major functions of hypothalamus.
15. Structural and functional differences between autonomic and somatic nervous system.
16. Describe the bones of lower limb.
17. Draw a labeled diagram of nephron and list the differences between juxtamedullary and cortical nephrons.

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