

GENERAL HUMAN PHYSIOLOGY AND BIOCHEMISTRY

Time: 3 Hours

Max Marks: 70

Note: Answer part A & B questions in two separate answer books

Question in part “A” should not be answered in part “B” and vice versa. Otherwise they will not be valued

Part-A (Physiology) = 35 Marks

Write an essay on the following:

1 X 9 = 9

1. Describe different stages of Hemostasis. Explain intrinsic mechanism of Coagulation. Write in brief about Hemophilia. (2+5+2)

Write a short note on the following:

4 X 4 = 16

2. Describe in brief about chemical regulation of Respiration.
3. Describe the different phases of Cardiac Cycle.
4. Enumerate GI Hormones. Write the functions of each.
5. Write about counter-current mechanism in Kidney.

Write briefly on the following:

5 X 2 = 10

6. Write the functions of Basal Ganglia.
7. What are the actions of Calcitriol?
8. What is Referred Pain?
9. What are the different stages of Menstrual Cycle?
10. Draw neat labelled diagram of action potential in Nerve Fiber.

Part-B (Biochemistry) = 35 Marks

Write an essay on the following:

1 X 9 = 9

11. Write the steps of β - oxidation of fatty acids, how many ATP's are produced when Palmitic acid is completely oxidised?

Write a short note on the following:

4 X 4 = 16

12. Renal regulation of Blood pH.
13. Schematic representation of Electron Transport Chain.
14. Explain competitive inhibition and its importance.
15. What are the Phospholipids? Give examples and their function.

Write briefly on the following:

5 X 2 = 10

16. Functions of Vitamin C.
17. Dietary Fiber.
18. Functions of Vitamin K.
19. Difference between DNA and RNA.
20. Name essential fatty acids and their importance.