

PG (CBCS)
M.Sc. Semester-I Examination, 2022
MLT
PAPER: MLT 101
(HUMAN ANATOMY & PHYSIOLOGY)

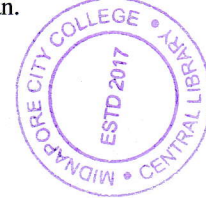
Full Marks: 40

Time: 2 Hours

GROUP-AAnswer any **FOUR** questions

4X2=8

1. What is cardiac reserve? State its normal values.
2. Compare hair root and hair shaft.
3. Mention the major organs found in pelvic cavity of human.
4. What is buffer nerve?
5. Name the different regions in vertebral column.
6. What is nicotinic receptor?
7. Write the function of Sertoli cells.
8. Name the hormones released from posterior pituitary?

**GROUP-B**Answer any **FOUR** questions:

4×4=16

9. Draw and label a simple muscle twitch. What is Rigor mortis? 3+1
10. If the heart rate is 80 beats/min and stroke volume is 80 ml of a subject, calculate the cardiac output. State the distribution of the cardiac output in vital organs of this subject. 2+2
11. State the physiological significance of Vital capacity (VC). Why is VC decreased during pregnancy? 2+2
12. What is power stroke? Describe the stages of cross-bridge cycling during skeletal muscle contraction. 1+3
13. State the types of cells found in bone tissue. State the process of endochondral ossification. 1+3
14. Discuss the digestive and endocrine functions of pancreas. 2+2
15. Explain the oxyhaemoglobin dissociation curve and show the Bohr's effect on it. 3+1
16. Discuss the components and signal propagation mechanism through a chemical synapse with a suitable diagram.

P.T.O.

(2)

GROUP-C**Answer any TWO questions:****2X8=16**

17. Briefly describe the cellular types and their respective secretions of anterior pituitary? Discuss the carbohydrate digestion and absorption process in digestive tract. 4+4
18. Define blood pressure? If the SBP will increase to 150 mm Hg, how will baroreceptors reflex work? What is Bainbridge reflex? 2+4+2
19. Describe the different phases of female reproductive cycle. What are the functions of Granulosa cells? What is the premenstrual syndrome (PMS)? 4+2+2
20. What is GFR? Which are the factors regulating GFR? Describe the respiratory cycle indicating the role of respiratory muscles on it. 1+2+5