



PG CBCS
M.Sc. Semester-I Examination, 2023
MEDICAL LABORATORY TECHNOLOGY
PAPER: MLT 101
(HUMAN ANATOMY & PHYSIOLOGY)

Full Marks: 40

Time: 2 Hours

The figures in the right-hand margin indicate full marks.
Candidates are required to give their answers in their own words as far as practicable.

GROUP-A

Answer any **FOUR** questions

2×4=8

1. Define 'gastroenterology' and 'proctology'.
2. State the role of skeletal system in "Mineral homeostasis".
3. Mention the major organs found in pelvic cavity of human.
4. What is appendicular skeleton?
5. Write the physiology of 'Rigor mortis'.
6. State the role of Vasa Recta.

GROUP-B

Answer any **FOUR** questions:

4×4=16

7. Write a short note on electrical conduction system in human heart.
8. Describe the different phases of female reproductive cycle.
9. Discuss the pathway of signal propagation during a reflex action.
10. Write a note on Hypoxia.
11. Briefly discuss the functions of hypothalamus in body temperature regulation.
12. State the functional classification of joints with example.

GROUP-C

Answer any **TWO** questions:

8×2=16

13. What is dead space air in lung? Describe the chloride shift mechanism of CO₂ transport. 2+6
14. What is GFR and state its normal value. Briefly describe the micturition reflex. 3+5
15. If the heart rate is 72 beats/min and stroke volume is 80 ml of a subject, calculate the minute volume. Define hypertension. If the SBP will increase to 150 mm Hg, how will baroreceptors reflex work? 2+2+4
16. Describe the anatomy of spiral cord with salient features notes lumbar section. 5+3
