

GANPAT UNIVERSITY
B.TECH. 3rd SEM. BIOMEDICAL AND INSTRUMENTATION ENGINEERING
REGULAR EXAMINATION NOVEMBER/DECEMBER 2011
2BM304: Human Anatomy and Physiology – I

TIME: 3 Hours

Total marks: 70

INSTRUCTIONS:

1. Use separate answer sheets for both of the sections
2. Figures on the right side indicate marks
3. Each sub-question carries equal marks
4. Please explain with the help of diagram wherever it is necessary

SECTION – I

Que.1. Write answers of the following questions. 12

- A. Write a detailed note on the genetic material.
- B. Life cycle of Red Blood Cells.

OR

Que.1. Write answers of the following questions. 12

- A. Provide the functions of spleen.
- B. Write a detailed note on anemia.

Que.2. Write answers of the following questions. 11

- A. Relationship between cell mediated and humoral immunity.
- B. Explain in detail the haemostasis.

OR

Que.2. Write answers of the following questions. 11

- A. Explain the role of T-cells in cell mediated immunity.
- B. Explain in detail the complementary system.

Que.3. Write answers of the following questions. (any three) 12

- A. Explain various types of cell-membrane mediated transport mechanism?
- B. Write a note on lymph node.
- C. Write a note on areolar connective tissue.
- D. Explain the acid – base balance.

SECTION – II

Que.4. Write answers of the following questions.

12

- A. Describe the structure of larynx with applied anatomy and functions.
- B. How is respiration regulated?

OR

Que.4. Write answers of the following questions.

12

- A. Describe structure of lungs. Give the difference of right lung and left lung.
- B. Write on principles of gas exchange.

Que.5. Write answers of the following questions.

11

- A. Describe coronary circulation in detail.
- B. What are the properties of the heart and describe them?

OR

Que.5. Write answers of the following questions.

11

- A. Describe the structure of arteries and veins.
- B. Define blood pressure. How is it regulated?

Que.6. Short notes (any three)

12

- A. Valves of the heart
- B. Cardiac cycle
- C. Factors affecting heart rate
- D. Mediastinum

-----**END OF THE PAPER**-----