

GANPAT UNIVERSITY
B.TECH. 3rd SEM. BIOMEDICAL AND INSTRUMENTATION ENGINEERING
REGULAR EXAMINATION NOVEMBER/DECEMBER 2013
2BM304: Human Anatomy and Physiology – I

TIME: 3 Hours

Total marks: 70

INSTRUCTIONS:

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

SECTION – I

- Que.1 Write answers of the following questions. 12**
- A Draw the structure of cell. Explain function of any three cell organelles.
B Explain the mechanism of blood coagulation (clot).
- OR
- Que.1 Write answers of the following questions. 12**
- A Explain the relationship between cell mediated and humoral immunity.
B Write a note on connective tissue.
- Que.2 Write answers of the following questions. 11**
- A Explain in detail the mechanism of action of interferons.
B Write the importance of the body fluids.
- OR
- Que.2 Write answers of the following questions. 11**
- A Write a note on granulocytes.
B Write a detailed note on spleen.
- Que.3 Write answers of the following questions. 12**
- A Write a note on Na⁺ K⁺ ATPase pump.
B Write a note on buffers.
C Define lymph and explain lymph formation.

SECTION – II

- Que.4 Write answers of the following questions. 12**
- A Describe the anatomy of nasal cavity.
 - B Describe mechanism of respiration.

OR

- Que.4 Write answers of the following questions. 12**
- A Describe larynx.
 - B Describe the regulation of respiration.

- Que.5 Write answers of the following questions. 11**
- A Write on the external features of the heart.
 - B Describe cardiac cycle.

OR

- Que.5 Write answers of the following questions. 11**
- A Describe coronary circulation.
 - B Describe cardiac output.

- Que.6 Write short notes (any three) 12**
- A Artificial respiration
 - B Lungs
 - C Pericardium
 - D ECG

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