

**GANPAT UNIVERSITY**  
**B. TECH SEM- III (BM & I) REGULAR EXAMINATION– NOV-DEC 2015**  
**2BM 304 Human Anatomy and Physiology I**

TIME: 3 HRS

TOTAL MARKS: 60

- Instructions: (1) This Question paper has two sections. Attempt each section in separate answer book.  
(2) Figures on right indicate marks.  
(3) Be precise and to the point in answering the descriptive questions.

**SECTION: I**

- Q.1** (10)  
(a) Draw a figure of typical human cell. Also discuss the functions of sarcoplasmic reticulum. (5)  
(b) With neat diagram, explain the conduction system of the heart. (5)

**OR**

- Q. 1** (10)  
(a) What are tonsils? Enlist the categories based upon their location. (5)  
(b) Draw and explain the cardiac cycle events. (5)

- Q.2** (10)  
(a) Write a short note on systemic circulation of the heart with neat diagram. (5)  
(b) Write a short note on components of red blood cells (RBC). (5)

**OR**

- Q.2** (10)  
(a) Write a short note on components of compound microscopes. (4)  
(b) Explain the functions of cell membrane. (3)  
(c) What does agranulocyte do in the blood? (3)

- Q.3** (10)  
(a) Write a short note on structure of the heart. (5)  
(b) Draw and explain lymph vessels and lymph circulation. (5)



SECTION: II

Q.4

- (a) Define Anatomy and Physiology. How these two terms are Interrelated?

(10)

(2)

- (b) Describe the levels of structural organization with neat diagram.

(4)

- (c) Mention the Functions of Respiratory system. Differentiate between the conducting Zone and Respiratory Zone.

(4)

OR

Q.4

- (a) Describe any 3 Respiratory Disorders in detail.

(10)

(5)

- (b) Define Anatomical Position and Describe any 5 directional terms with suitable example.

(5)

Q.5

- (a) Explain Dermis Layer of the Skin with neat diagram.

(10)

(5)

- (b) Describe Respiratory volumes and Capacities with neat diagram.

(5)

OR

Q.5

- (a) Explain the phases of Secondary Wound Healing with neat Diagram.

(10)

(5)

- (b) Describe the Functions of Skin in detail. Which factors affect the skin color?

(5)

Q.6

- (a) Explain Homeostatic control mechanism with neat diagram.

(10)

(5)

- (b) Neural Regulation of Respiration.

(5)

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