

**B.Sc. CARDIAC TECHNOLOGY  
FIRST YEAR  
PAPER I – APPLIED ANATOMY, PHYSIOLOGY AND BIOCHEMISTRY  
RELATED TO CARDIAC TECHNOLOGY**

*Q.P. Code : 801501*

**Time: Three hours**

**Maximum: 100 Marks**

**Answer all questions**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Describe the anatomical location and coverings of the heart and label its chambers and associated blood vessels with suitable diagram?
2. Describe in detail the various events of the cardiac cycle?
3. What is the normal blood pH? Explain various buffer systems in the body.

**II. Write Notes on:**

**(8 x 5 = 40)**

1. Features of thoracic vertebra.
2. Functions of glucocorticoids
3. Draw the structure of nephron and label its parts?
4. Draw and label the attachments of clavicle on both dorsal and ventral view?
5. Define electrocardiogram, describe the segments and intervals of normal ECG.
6. Explain essential aminoacids and their biochemical function.
7. Difference between DNA and RNA.
8. Explain atrioventricular node function.

**III. Write Notes on:**

**(10 x 3 = 30)**

1. What is meant by essential hypertension
2. Give three examples for cells of connective tissue.
3. Blood grouping.
4. Draw and label the features of radius.
5. Name the branched chain amino acids.
6. Syncope.
7. Sources and RDA of vitamin C.
8. Functions of insulin.
9. Cardiac output.
10. Different types of epithelia.

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