

**B.Sc. CARDIO PULMONARY PERFUSION CARE TECHNOLOGY  
FIRST YEAR  
PAPER II – BIOCHEMISTRY AND PATHOLOGY**

*Q.P. Code: 801402*

**Time: Three Hours**

**Maximum: 100 Marks**

**Answer all questions**

**I. Elaborate on:** **(3 x 10 = 30)**

1. Describe the pathogenesis, clinical features and morphological features of rheumatic heart disease.
2. Draw structure of human immuno deficiency virus. Explain in detail the routes of transmission, pathogenesis, clinical features and lab diagnosis of acquired immuno deficiency syndrome.
3. Write in detail about classification and functions of proteins.

**II. Write notes on:** **(8 x 5 = 40)**

1. Kwashiorkor.
2. Generation of arachidonic acid metabolites and their role in inflammation.
3. Hepatitis B virus.
4. Metabolism of vitamin D.
5. Innate immunity.
6. Draw a structure of immunoglobulin. Add a note on the types of immunoglobulin.
7. Significance of Henderson equation.
8. Explain any two viral infections with its cause.

**III. Short answers on:** **(10 x 3 = 30)**

1. Define hypertrophy.
2. Give three examples for gram positive bacteria.
3. Types of necrosis.
4. Deficiency state of vitamin D.
5. Scurvy.
6. List any four sexually transmitted diseases.
7. What are ketone bodies? Give examples.
8. Define molality.
9. Write any three fungal infections with its cause.
10. Define (i) Isoenzymes (ii) Holoenzymes