

**B.Sc. RESPIRATORY THERAPY
FIRST YEAR
PAPER III – BIOCHEMISTRY AND PHARMACOLOGY**

Q.P. Code: 802603

Time: Three Hours

Maximum: 100 Marks

Answer all questions

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

1. Classify diuretics with examples. Write a note on mechanism of action, uses and adverse effect of furosemide.
2. Explain in detail about the classification of enzymes with examples. Add a brief note on coenzymes with examples.
3. Explain in details about the active form, sources, biochemical functions and deficiency manifestations of iron.

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

1. BPG shunt pathway and its significance.
2. Factors affecting enzyme activity.
3. Mention the types of buffers in human body. Add a note on bicarbonate buffer.
4. What is hyponatremia, hyponatremia, hypokalemia and mention one disorders for each which causes it?
5. Classify drugs used as preanaesthetic medication with examples.
6. Describe the dose related toxicity of theophylline.
7. Mechanism of action, uses and adverse effects of N-Acetyl cysteine.
8. Explain briefly about various routes of drug administration.

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

1. What is an aromatic amino acid? Mention the three examples.
2. What is a mucopolysaccharide? Give an example.
3. Classify the hormones secreted by pituitary gland.
4. Mention the normal values of blood pH, urea and creatinine.
5. What is metabolic acidosis? Mention the diseases causing it.
6. What is potassium sparing diuretics? Give examples.
7. Name three antifungal agents.
8. Name the anti – hypertensives avoided in asthmatics.
9. What is loading dose and maintenance dose?
10. Injectable drugs used in tuberculosis.
