

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. Explain in detail about Gluconeogenesis. Add a note on various substrates for gluconeogenesis.
2. Classify drugs used in management of Bronchial Asthma with examples. Add a note on mechanism of action and adverse effects of inhalational steroids and its therapeutic rationale for use in Bronchial Asthma.
3. Explain in detail about types, sources, biochemical functions and deficiency manifestations of Vitamin A.

II. Write notes on:

(8 x 5 = 40)

1. Define coenzymes. Mention its examples and properties.
2. Sources, Biochemical functions and deficiency manifestations of Calcium.
3. Mention the types of acid base disorders. Add a note on respiratory alkalosis and acidosis.
4. Mention the functions of growth hormone and thyroxine.
5. Mechanism of action, uses and adverse effects of cetirizine.
6. Types, mechanism of action, uses and adverse effects of Opioid antitussives.
7. Inhalational drug delivery system for aerosols.
8. Mechanism of action, uses and adverse effects of Lignocaine.

III. Short answers on:

(10 x 3 = 30)

1. What is a polysaccharide? Classify it and give examples.
2. What is an essential amino acid and give examples?
3. What is an active site? Mention its significance.
4. Name the hormones secreted by adrenal cortex and adrenal medulla.
5. Add a note on Lozenges.
6. Explain competitive antagonist with examples.
7. Routes of administration bypassing first pass metabolism.
8. Mechanism of action, uses and adverse effects of Acetazolamide.
9. What is the function of vitamin K and vitamin E?
10. What is surfactant and mention its significance?