

**DIPLOMA IN DIALYSIS TECHNOLOGY**  
**FIRST YEAR**  
**PAPER I – ANATOMY AND PHYSIOLOGY, BIOCHEMISTRY AND**  
**PHARMACOLOGY**

*Q.P. Code: 842501*

**Time : Three Hours**

**Maximum : 100 Marks**

**Answer All questions.**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. (a) With the help of a suitable diagram, elaborate on the anatomy of the heart.  
(b) Explain the physiology of urine formation.
2. Describe in detail on lipids and their functions.
3. Write in detail about anti hypertensives: Definition, classification, actions, side effects and contraindications.

**II. Write notes on:**

**(10 x 5 = 50)**

1. Parts of the stomach.
2. Write short notes on adrenal gland.
3. Explain briefly ANY THREE clinical uses and ANY TWO adverse effects of protamine sulphate.
4. Elaborate on glycogen metabolism.
5. Describe briefly the anatomy and functions of the kidney.
6. Briefly explain the factors affecting enzyme activity.
7. Elaborate on Erythropoietin.
8. Write on the physiology of muscle contraction.
9. Write short notes on diuretics.
10. Write brief note on low molecular weight heparin.

**III. Short answers on:**

**(10 x 2 = 20)**

1. Constituents of Urine.
2. Dopamine.
3. Nephrotoxic drugs.
4. Vit. A deficiency.
5. Lymphatic organs.
6. Coenzyme.
7. Henderson Hasselbalch equation.
8. Molality and Molarity.
9. Composition of hemodialysis concentrate.
10. Inhalational steroids.

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