## DIPLOMA IN DIALYSIS TECHNOLOGY FIRST YEAR PAPER I – ANATOMY & PHYSIOLOGY, BIOCHEMISTRY & PHARMACOLOGY

Q.P. Code: 842501

Time: Three Hours Maximum: 100 Marks

**Answer All questions.** 

I. Elaborate on:  $(3 \times 10 = 30)$ 

1. Write in Detail on composition of blood and function of blood elements.

- 2. List the various groups of Anti Hypertensive Drugs, their actions and adverse effects.
- 3. Write in detail on acid base homeostasis by kidneys.

II. Write notes on:  $(10 \times 5 = 50)$ 

- 1. Antiplatelet agents.
- 2. Low molecular weight heparin mechanism of action, uses and dosage forms.
- 3. Functions of special sense organs.
- 4. Potassium sparing diuretics list, mechanism of action, uses and adverse effects.
- 5. Toxicities of aminoglycosides.
- 6. Functions of proteins in cell function.
- 7. Digoxin mechanism of action, pharmacologic effects, adverse effects, uses.
- 8. Role of erythropoietin in blood formation and routes and dosage forms.
- 9. Uses and precautions of crystalloids in renal failure patients.
- 10. Differentiate Acute and Chronic renal failure.

III. Short answers on:  $(10 \times 2 = 20)$ 

- 1. Adverse effects of loop diuretics.
- 2. List 4 calcium channel blockers.
- 3. Brief the various types of potassium exchange resins.
- 4. Types and functions of coenzymes.
- 5. Calcitriol.
- 6. Basal metabolic rate.
- 7. Composition of peritoneal dialysis fluid.
- 8. Hydrogen peroxide as antiseptic.
- 9. List hormones involved bone and mineral homeostasis.
- 10. Coagulation factors- enumerate.

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