[LK 0217] FEBRUARY 2017 **Sub. Code: 1306**

B.Sc. DIALYSIS TECHNOLOGY
FIRST YEAR
PAPER I – ANATOMY, PHYSIOLOGY AND BIOCHEMISTRY

Q.P. Code: 801306

Time: Three Hours **Maximum: 100 Marks**

Answer all questions

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

1. Explain the various mechanisms involved in Blood pressure regulation. Add a note on hypertension.
2. Describe the lungs under the following headings: (a) coverings (b) External features, (c) Differences between right and left lungs (d) Parts of bronchial tree (e) Applied anatomy.
3. Describe the factors that regulate enzyme activity. Add a note on isoenzymes.

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

1. Explain the innervation of the urinary bladder. Add a note on micturition reflex.
2. Name the gland that secretes Growth hormone and explain the functions of growth hormone. Add a note on Acromegaly.
3. Describe the origin, insertion, nerve supply and action of the Biceps brachii muscle.
4. Mention the layers of the Pleura, its recesses and its nerve supply.
5. Mention the extent of Ureter and sites of its constrictions.
6. Describe briefly the digestion and absorption of dietary lipids.
7. Write briefly on protein-energy malnutrition in children.
8. Explain the regulation of calcium homeostasis.

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

1. Give two examples of active transport across the cell membrane.
2. Classify plasma proteins and mention 1 function of each.
3. Mention three factors that cause right shift of the oxygen-hemoglobin dissociation curve.
4. Enumerate the differences between an artery and a vein.
5. Name the structures present in the hilum of kidney.
6. Mention two features of typical thoracic vertebra.
7. Name the branches of arch of aorta.
8. Write briefly on the functions and deficiency manifestations of vitamin C.
9. Describe the different types of diabetes mellitus.
10. Define basal metabolic rate. Name any two factors which influence basal metabolic rate.

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