[LB 0212] **AUGUST 2012** **Sub. Code: 1301**

B.Sc. DIALYSIS TECHNOLOGY

FIRST YEAR

PAPER I – ANATOMY, PHYSIOLOGY, BIOCHEMISTRY AND PATHOLOGY – I

Q.P. Code : 801301

Time : Three hours **Maximum : 100 marks**

(180 Mins) Answer All questions in the same order.

I. Elaborate on:	**Pages (Max.)**	**Time (Max.)**	**Marks (Max.)**
1. Describe in detail the physiological processes in different parts of the nephron and the factors affecting them.	7	20	10
2. Describe in detail the pathogenesis and the differences between insulin dependent and non insulin dependent diabetes. How is diabetes diagnosed in the lab and explain the pathophysiology and complications of diabetic ketoacidosis.	7	20	10
3. Describe the parts of a neuron. Classify nerve fibres and describe in detail the neural control of the motor system.	7	20	10

II. Write Notes on:			
1. Mention the bones of the pelvic girdle and its differences from pectoral girdle.	4	10	5
2. Elucidate the constituents of the blood compartment.	4	10	5
3. How is potassium distributed and excreted from the body? Also enumerate the causes of hyperkalemia.	4	10	5
4. Explain amyloidosis. Mention the classification and features of primary and secondary amyloidosis.	4	10	5
5. Write an the anatomy, relations and contents of pericardium.	4	10	5
6. Show diagrammatically the intrinsic and extrinsic coagulation pathways.	4	10	5
7. Define basal metabolic rate. What are the factors influencing it and it's significance?	4	10	5
8. Describe the clinical syndrome, pathogenesis and complications of falciparum malaria.	4	10	5

III. Short Answers on:			
1. Name the brochopulmonary segments of the lungs.	2	4	3
2. Draw the normal ECG complex. Define the different waves and segments seen.	2	4	3

3. Mention the causes of hypercalcemia.	2	4	3
4. What are the mechanisms of cell injury?	2	4	3
5. Define edema. Enumerate the differences between transudative and exudative edema.	2	4	3
6. What are the coverings of the kidneys?	2	4	3
7. Mention the actions and feedback control of parathyroid hormone.	2	4	3
8. Write short notes on Wilson’s disease.	2	4	3
9. Classify shock.	2	4	3
10. How are structures in the hila of the kidneys arranged?	2	4	3

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