

II B.Tech. II Semester Regular Examinations, April/May -2005
BASIC CLINICAL SCIENCES-I
(Bio-Medical Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. What is Dialysis? Explain the principle of Artificial Kidney.
2. Write a note on:
 - (a) Diseases of nervous system
 - (b) Diseases of muscle.
3. Describe in detail Neuromuscular Transmission and its disorders.
4. Explain the Normal Cardiovascular System using a block diagram.
5. Discuss briefly the different Pacing Modes of operation.
6.
 - (a) Briefly explain Arterial and Ventricular Fibrillation.
 - (b) Discuss in a brief about CineAngiography.
7. Discuss about the I.C.C.U organization and its clinical aspects.
8. Discuss about the necessity of “Nutritional Support” and it’s process within a Human Body.

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1. Write a note on:
 - (a) Hemo Dialysis
 - (b) Peritoneal Dialysis
2. Write a note on:
 - (a) Diseases of nervous system
 - (b) Diseases of muscle.
3. Explain Electromyography in detail.
4. Sketch and explain the operation of Heart-Lung Machine.
5. Discuss briefly the different Pacing Modes of operation.
6. Discuss the properties of ultrasound and how ultra sound can be used for diagnostics.
7.
 - (a) Give few clinical aspects of I.C.C.U.
 - (b) Explain the importance of By-pass Surgery.
8.
 - (a) What is meant by Endoscopy?
 - (b) List the various types of Endoscopes available.

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1. Why dialyser analysis is required? What are the parameters to be analyzed and explain any two parameters in detail.
2. Write a note on:
 - (a) Diseases of nervous system
 - (b) Diseases of muscle.
3. Explain Electromyography in detail.
4. (a) Explain the function(s) of Tricuspid, Aortic Valves.
(b) Explain the function(s) of Bicuspid, Pulmonary Valves.
5. Discuss briefly the different Pacing Modes of operation.
6. Discuss the applications of ultra sound in medicine.
7. (a) Give few clinical aspects of I.C.C.U.
(b) Explain the importance of By-pass Surgery.
8. Explain the anatomy and physiology of GI Tract.

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1. Why dialyser analysis is required? What are the parameters to be analyzed and explain any two parameters in detail.
2. (a) Explain the differences between a Motor Nerve and Sensory Nerve.
(b) What do you mean by Myastheviagravis?
3. Describe in detail Neuromuscular Transmission and its disorders.
4. Sketch and explain the Cardiac Cycle.
5. What is a Pacemaker? Mention its applications.
6. (a) Write a short note on : Cardiac Assist Devices.
(b) Write a brief note on : Treadmill.
7. Discuss about the I.C.C.U organization and its clinical aspects.
8. Explain Optical principle of Flexible Endoscope.
