

Code No: R09221101

R09

Set No. 2

II B.Tech II Semester Examinations, APRIL 2011
BASIC CLINICAL SCIENCES-I
Bio-Medical Engineering

Time: 3 hours

Max Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

1. Write about amnioscopy and fetoscopy. and their implications [15]
2. How is ergo meter used to assess the cardiac testing? [15]
3. Explain in detail about controlling and monitoring devices for Dialysis. [15]
4. Explain in detail about the Muscle diseases in which an inherited biochemical defect is present. [15]
5. Describe the working of Continuous Ambulatory Peritoneal Dialysis system. [15]
6. How is cardiac anesthesia different from anesthesia to other surgeries? [15]
7. Write a short note on the following.
 - (a) Motor Neuron Disorders.
 - (b) Study of Reflexes. [7+8]
8. What is blind source separation (BSS) technique and how is it used in non-invasive extraction of fetal cardiac signals from maternal abdominal recordings? [15]

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Set No. 4

II B.Tech II Semester Examinations, APRIL 2011
BASIC CLINICAL SCIENCES-I
Bio-Medical Engineering

Time: 3 hours

Max Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

1. Write a short notes on the following:
 - (a) Motor Neuron Disorders.
 - (b) Study of Reflexes. [7+8]
2. Write short notes on the following:
 - (a) clinical application of diffusion.
 - (b) clinical application of convection. [7+8]
3. What is cine angiography? What are its indications and uses? [15]
4. What is celiac disease? What are the symptoms of this disease? [15]
5. What is the principle behind electromyography and why is it done? [15]
6. How do you plan a specialized cardiac surgical theater? [15]
7. How is fetal electrocardiogram recorded? [15]
8. Discuss about the various monitoring devices required in a dialysis machine. [15]

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Set No. 1

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BASIC CLINICAL SCIENCES-I
Bio-Medical Engineering

Time: 3 hours

Max Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

1. Write short notes on the following:
 - (a) Contralateral monoparesis.
 - (b) Contralateral hemiparesis. [7+8]
2. Write about the Dialysate composition for Peritoneal Dialysis. [15]
3. What are different types of cardiac assist devices? [15]
4. Write short notes on the following:
 - (a) Distinguish between Acetate, Bicarbonate dialysis.
 - (b) ultra filtration rate. [7+8]
5. Cardiac defibrillator cum monitor - how does this function what are the uses and risks? [15]
6. What is a fiberscope and what is the principle and use of this instrument? [15]
7. What is partitioned factor analysis (PFA) and how is used in fetal cardiac signal monitoring? [15]
8. Write short notes on the following.
 - (a) ELECTROMYOGRAPHY.
 - (b) NERVE CONDUCTION STUDIES. [7+8]

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R09

Set No. 3

II B.Tech II Semester Examinations, APRIL 2011
BASIC CLINICAL SCIENCES-I
Bio-Medical Engineering

Time: 3 hours

Max Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

1. Explain the principle of operation of neuromuscular stimulators. [15]
2. What is a treadmill? Who invented treadmill? How is treadmill used to assess the cardiac function? What are the advantages and disadvantages of treadmill? What is omnidirectional treadmill? [15]
3. What are the different types of prosthetic valves? What are the advantages and disadvantages of each of them? [15]
4. Write short notes on the following:
 - (a) ultra filtration.
 - (b) Hemofiltration. [7+8]
5. Under what conditions Renal transplantation is required? Discuss about Renal replacement therapy. [15]
6. Why is neurological examination performed and what is the procedure during a neurological examination? [15]
7. What is intergrate monitoring system of anesthetic equipment? Discuss its role? [15]
8. Discuss in detail anatomy and physiology of G.I.T? [15]
