

Code No: 07A51104

R07

Set No. 2

III B.Tech I Semester Examinations, May 2011

BASIC CLINICAL SCIENCES -II

Bio-Medical Engineering

Time: 3 hours

Max Marks: 80

**Answer any FIVE Questions
All Questions carry equal marks**

1. (a) Brief about fractures.
(b) Discuss about various types of treatments given for fractures healing. [8+8]
2. (a) Discuss the use of Radio-isotopes in medicine?
(b) Explain the features of Radioisotopes used for scanning of liver? [8+8]
3. (a) What is Radioimmunoassay and what are its applications in Medical field?
(b) Brief about various thyroid diseases. [8+8]
4. (a) Explain about artificial respiration.
(b) Give a short notes on diagnostic and therapeutic indications [8+8]
5. (a) Give a detailed account on Blood Groups and Rh Factor
(b) Explain hemolytic disease of New born and Write a note on Exchange Transfusion. [8+8]
6. (a) Explain in brief how a patient is monitored during surgery.
(b) Write in brief about respiratory monitors. [8+8]
7. (a) Explain the types of ionizing radiation.
(b) Explain what is Fractionation. [8+8]
8. (a) Give a brief notes on acute and chronic radiation dose.
(b) Write about Embryo late effects of radiation. [8+8]

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Set No. 4

III B.Tech I Semester Examinations, May 2011

BASIC CLINICAL SCIENCES -II

Bio-Medical Engineering

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Discuss about the role of scanners in investigating abnormalities.
(b) Give the applications of ultrasound scanning in investigations. Explain its working principle. [8+8]
2. (a) What are the types of modifiers used in regulating the radiation response? Explain the methods used to design these modifiers in clinical practice?
(b) Write a note on LD-50. [8+8]
3. (a) Explain monitoring of pulse, BP, Respiration, ECG of patient during surgery.
(b) Write a note on Basic Anesthesia machine (Boyle's apparatus). [8+8]
4. (a) Discuss broad principles suitable for treatment of common fractures.
(b) Brief about any two types of joints with relevant figures. [8+8]
5. (a) Write short notes on central nervous system imaging.
(b) Give the procedure for liver and spleen scanning i.e Reticuloendothelial imaging. [8+8]
6. (a) Explain the mechanism of respiration.
(b) Explain how arterial blood pressure and blood flow are monitored/measured. [8+8]
7. (a) Describe about different types of radio isotopes used in radio therapy.
(b) Oxygen effect. [8+8]
8. (a) Describe briefly the determination of distribution of radioactive material within the body.
(b) Write a note on Meta static bone diseases. [8+8]

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R07**Set No. 1**

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

Time: 3 hours**Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Classify joints. Explain about the degree of movement at each type of joint.
(b) List rehabilitative procedures in orthopedics. [8+8]
2. (a) Describe the radiation burns of skin and its prevention?
(b) Discuss the problems encountered in the radio therapy? [8+8]
3. (a) Explain the mechanism of respiration.
(b) Write short notes on plethysmography. [8+8]
4. (a) What are the recent trends of monitoring systems in OT's?
(b) Explain the basic Anaesthesia machine. [8+8]
5. (a) Write short notes on radio isotopes used in medical imaging systems.
(b) Give the details of respiratory system scan. [8+8]
6. (a) Describe the Somatic effects of radiation.
(b) Explain the Biological effect of radiation on genetic tissue.
(c) Give an account of effects of radiation on the embryo. [6+5+5]
7. (a) Give a brief description of Haematological scan.
(b) Explain in detail about Radioimmunoassay. [8+8]
8. (a) In what way blood groups are classified and explain its significance.
(b) Explain the concept of blood bank and its importance in a general hospital. [8+8]

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R07**Set No. 3**

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

Time: 3 hours**Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Explain the biological effects of radiation on embryo and its harmfulness.
(b) Write a note on somatic effects. [8+8]
2. (a) What is reduction? Discuss the differences between open and closed Reductions.
(b) Explain in detail a ball and socket joint. Give examples. [8+8]
3. Describe the mechanism of gas exchange and enumerate the indications for artificial respiration. [16]
4. (a) Explain ionizing radiation and non-ionizing radiation.
(b) Explain the types of radiation damage. [8+8]
5. (a) Give a brief description about PET.
(b) Explain in detail about kidney scan. [8+8]
6. Briefly explain MRI and ultrasound scanners and their working principle and various abnormalities found by using them. [16]
7. (a) Explain in detail of thyroid diseases & cancer functional studies.
(b) Give a brief description of Haematological scan. [8+8]
8. (a) Write a note on spinal anaesthesia and the precautions to be taken during the procedure.
(b) Compare the product and procedure of old and new methods of anaesthesia. [8+8]
