

III B.Tech II Semester Supplementary Examinations, April/May 2005
MEDICAL IMAGING TECHNIQUES
(Bio-Medical Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. Explain Electro magnetic radiation and different types of interactions between X-rays and matter?
2. Briefly discuss the principle behind x-ray Radiography.
3. What is Conventional Tomography? How it differs from Computed Tomography? Explain.
4. What are Ultrasound waves. How they are produced? Mention the uses.
5. What is Doppler Effect? How is this principle used in Doppler Imaging? Explain briefly.
6. Describe briefly the generation and detection of Nuclear Emission.
7. Write short notes on:
 - (a) Spatial Resolution in MRI
 - (b) Image Contrast in MRI
 - (c) Magnetic Field Gradients in MRI
 - (d) NMR coil
8. What are the biological effects of Magnetic Fields in Magnetic Resonance Imaging?
