

IV B.Tech I Semester Supplementary Examinations, April/May 2005
BIO-MEDICAL EQUIPMENT-II
(Bio-Medical Engineering)

Time: 3 hours

Max Marks: 70

Answer any FIVE Questions
All Questions carry equal marks

1. With a circuit diagram explain MRI unit. Mention its applications.
2. Explain the working of gamma camera. Also discuss its applications in the medical field.
3. Explain the terms:
 - (a) Bone conduction.
 - (b) Air conduction
 - (c) Masking
 - (d) Audiometry.
4. Describe the principle of prosthetic Knee. What are the factors to be considered in the design of knee? Explain. How it is useful to the common man?
5.
 - (a) Explain tree testing of prosthetic heart valve using a pulse duplicator.
 - (b) Discuss the qualitative requirements and features of a prosthetic heart valve.
6. Explain with diagram, the types of exchangers used in artificial kidney. Which is the best one ? Give reasons.
7. With a diagram of pneumatic larynx, explain its working. How it is different from the electronic type? Explain.
8. Write short notes on:
 - (a) Radio isotope.
 - (b) Retinoscope.
 - (c) PET.
