

III B.Tech I Semester Supplementary Examinations, November 2006
ELECTRONIC EQUIPMENT DESIGN
(Electronics & Instrumentation Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Explain in detail the mortality curve.
(b) Briefly explain the theories relating to mortality and dynamic models. [6+10]
2. (a) Design an adjustable regulator (3v to 28v) with short circuit current limit of 60mA using 723 regulator.
(b) Explain the limitations of linear voltage regulator. [10+6]
3. Explain the features and function of the following electronic workshop equipment.
(a) TNC probing
(b) Profile projectors
(c) Metal soldering irons
(d) Tool check. [16]
4. (a) Explain in brief what is inductive interference? Why is it said that inductive interference can only be reduced and not be eliminated? What are the ways to reduce it?
(b) What is the effect of humidity on the working of an instrument? How can this effect be eliminated? [8+8]
5. Briefly discuss about Reflections and cross talk problems that affect digital PCBs. [16]
6. Write about Dyeing, Touch up, post backing and stripping related to wet film resists. [16]
7. (a) State the difference between auto and variable transformer.
(b) What are pulse transformers? What are the materials used for its core?
(c) What precautions are taken while designing high voltage transformer?
(d) What are the specifications of AF transformers and AF inductors? [4×4]
8. Explain the following testing methods for testing inductors and transformers
(a) Ohmmeter testing
(b) Voltmeter testing
(c) Resonance method of testing. [16]
