

Code: R7 421001

R7

B.Tech IV Year II Semester (R07) Advanced Supplementary Examinations, June 2012

INDUSTRIAL ELECTRONICS

(Common to EIE and E.Con.E)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions

All questions carry equal marks

- 1 (a) Explain the characteristics of the ideal operational amplifiers.
(b) Explain the instrumentation amplifiers.
- 2 Explain various protection techniques of regulated power supplies.
- 3 (a) Explain the monolithic voltage regulators.
(b) Describe three advantages of IC voltage regulators.
- 4 (a) Draw the volt-ampere characteristics of the SCR as a function of gate current.
(b) Explain class A ratings of SCR.
- 5 (a) Draw the circuit for full wave SCR power control circuit and explain its operation.
(b) Indicate the current and voltage waveform control.
- 6 Explain in detail chopper circuits principle, methods and configurations.
- 7 Explain industrial timer's classification and types.
- 8 (a) Explain the principle of dielectric heating.
(b) Explain the merits and applications of high frequency heating.
