

Code: 9A10705

R09

B.Tech IV Year I Semester (R09) Supplementary Examinations, May 2013

POWER PLANT INSTRUMENTATION

(Common to E.Con.E and EIE)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 Explain briefly the following power generation schemes:
 - (a) Nuclear.
 - (b) Solar.
- 2
 - (a) Explain the principle and working of trivector meter.
 - (b) Explain the principle of dynamometer type wattmeter.
- 3 Describe with a neat diagram, the principle and working of a smoke density meter.
- 4 Explain briefly the following control with a neat sketch.
 - (a) Air fuel ratio control
 - (b) Drum level control
- 5 Discuss in detail the method of monitoring hot well level and deaerator level control systems.
- 6 Discuss the role of lubricating oil temperature control in power plant instrumentation.
- 7 Write short notes on:
 - (a) Infrared type analyzer.
 - (b) Thermal conductive analyzer.
- 8 Explain in detail basic principle and mode of operation of fuel analyzer with its significance in power plants.
