

APJ Abdul Kalam Technological University

Third Semester M. Tech Degree Examination, December 2016

Cluster: **Kollam**

Branch: **Electrical & Electronics Engineering**

Specialization: **Power Systems**

Subject: **02EE7211.4 POWER SYSTEM INSTRUMENTATION**

Time: 3 Hrs

Max. Marks: 60

Instructions: Answer *All* Questions from **Part A**.

Answer *Two Full* questions from **Part B**.

PART A

1. (i) List various methods for current measurement (2)
(ii) Describe in detail any two methods (7)
2. (i) Point out the characteristics and errors found in current transformers during measurement (5)
(ii) How they are used in measurement and protection? (4)
3. (i) List various liquid level measurement techniques (2)
(ii) State the principle of ultrasonic level measurement. How the radar technology is incorporated in these level indicating instruments? (7)
4. With the help of suitable diagrams explain the techniques for the measurement of CO_2 and O_2 in gas analyzers

(4 x 9=36)

PART B

5. Explain in detail the Reactor Safety Systems in nuclear power plants
6. Write in detail about electromagnetic protective relay
7. (i) Sodium is used as a coolant in nuclear power plant. Comment on the statement
(ii) Differentiate single-input, 2-input and multi-input relays

(2 x 12=24)
