

Code: 9A02403

R09

B.Tech II Year II Semester (R09) Supplementary Examinations May/June 2016

GENERATION OF ELECTRIC POWER

(Electrical & Electronics Engineering)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 Enumerate and explain essential components of a nuclear reactor.
- 2 Briefly explain the role and potential of solar energy generation.
- 3 What are the types of fuels used in thermal power plants? Briefly discuss.
- 4 (a) Explain the role and potential of wind energy option.
(b) Why is wind energy a renewable energy source? Mention its demerits as a source of energy.
- 5 Explain the different parameters which affect the biogas generation
- 6 Draw a schematic diagram of OTEC plant and point out the major differences with conventional thermal power plant.
- 7 (a) How does high load factor reduce the variable load problems on the power station?
(b) What is the effect of power factor on the cost of generation?
- 8 Give the basis for expressing the cost of electrical energy as $a + b \text{ kW} + c \text{ kwh}$ and explain the factors on which a, b and c depend.
