

Code: 9A02701

R09

B.Tech IV Year I Semester (R09) Supplementary Examinations June 2016

DISTRIBUTION OF ELECTRIC POWER

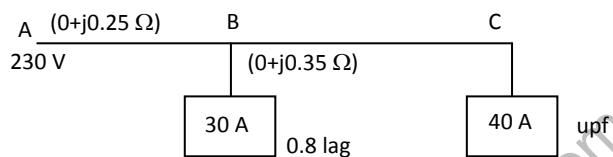
(Electrical and Electronics Engineering)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Compare DC with AC distribution of power.
(b) Compare underground with overhead distribution of power.
- 2 (a) Discuss characteristics of residential, commercial, agricultural and industrial loads.
(b) Define coincidence factor and contribution factor.
- 3 A single phase AC distribution supplies two single phase loads as shown in figure below. Find the voltage drop from A to C is



- 4 (a) Discuss elaborately to select optimal location of substations.
(b) Explain working of insulated substations.
- 5 (a) Explain synchronous capacitor.
(b) Explain role of tap changing and booster transformer in voltage control.
- 6 (a) Derive voltage drop and power loss in lines.
(b) Discuss manual method of solution for radial networks.
- 7 Explain capacitive compensation for power factor control using fixed and switched shunt capacitors.
- 8 Explain role of circuit reclosers, line sectionalizers and circuit breaker coordination of protection for distribution system.
