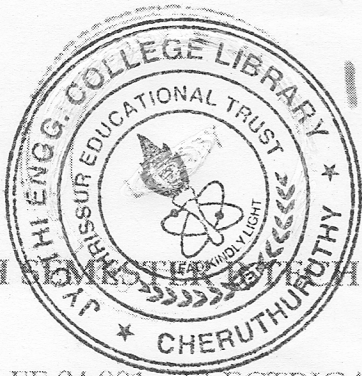


15873



Name:

Reg.No.

EIGHTH SEMESTER B.TECH (ENGINEERING) DEGREE EXAMINATION,
JUNE 2011

EE 04 801 - ELECTRICAL SYSTEM DESIGN AND ESTIMATION

Time: 3 Hours

Maximum: 100 Marks

Answer all questions

- I (a) Explain the protection of electric installation against overload.
(b) Explain the role of neutral and earth wire.
(c) Mention the electrical aspects for standby generators.
(d) Explain the electrical considerations for escalator services.
(e) Explain the various protection schemes for standby generators.
(f) Brief the design considerations of electrical installations in industries.
(g) Estimate the costing of a 16 MVA – 11 kV/415 V outdoor substation having one incoming and one outgoing.
(h) Explain the shielding of electrical system.
- II (a) Explain the location of distribution and panel boards for any one application. 8
(b) Explain briefly the need for earth bus. 7
OR
- III (a) Mention the various guideline for installation of fittings. 8
(b) Discuss the various criteria for selection of HT and LT underground cables. 7
- IV (a) Explain the electrical considerations for escalator services. 8
(b) Brief the design considerations of good lighting schemes. 7
OR
- V (a) Explain briefly about the design considerations of good lighting schemes. 7
(b) Brief the safety aspects of electrical installations for hospitals. 8
- VI (a) Discuss the estimation and testing of rising mains. 7
(b) With a neat sketch, explain the distribution board for high rise building including air conditioners. 8
OR
- VII (a) Brief about the lightning protection. 7
(b) Explain the need for estimating and costing of electrical installations for small industries. 8
7
- VIII (a) Explain the selection of EHV and HV power transformers 8
(b) Write short note on the design of plate and pipe earthing. 8
OR
- IX With the help of a schematic diagram, bring out the estimation and costing of a busbar trunking above 630 kVA.