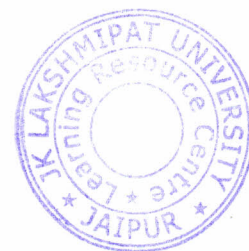


JK Lakshmipat University, Jaipur
Institute of Engineering and Technology
End Term Examination

B.Tech. 3rd Year/5th Semester/2011-15



Course Name: Advanced Distribution System

Max Marks: 40

Course Code: EE522

Time: 03.00 Hr

Instructions: 1. Attempt all sections.

2. Attempt four questions out of five questions of section B.

Section A

(10 Marks)

Q.1. Attempt all parts:

(1×5)

(i) Draw a table of 'Pattern of Utilization of Electric Energy'.

(ii) What is regression function? What are the typical regression curves used in power system forecasting?

(iii) What are the benefits of distribution automation?

(iv) What do you mean by soil resistivity?

(v) What is harmonics? Give formula.

Q.2. (a) How earthing provide safety to human body from shock? Draw table for safe touch potentials. **(2.5)**

(b) How we use shunt compensation in distribution system? **(2.5)**

Section B

(20 Marks)

Q.3. Give any four type of basic distribution system with clean diagrams. **(5)**

Q.4. What are the different operation criterion and standards applicable in distribution system? **(5)**

Q.5. Give the concept of reactive power flow and how we monitor and compensate it. **(5)**

Q.6. What is grounding or earthing? What are the grounding methods commonly used and also provide the basis of selection of grounding method? **(1+4)**

Q.7. What do you mean by automation in distribution system? Write a short note on Remote Terminal Unit and Human Machine Interface. **(1+2+2)**

Section C

(10 Marks)

Q.8. Write a note on system losses. What are the reasons for the occurrence of commercial losses? **(5)**

Q.9. Write a note on following: **(2.5+2.5)**

a) SCADA system

b) Power Line Carrier Communication