Exam.Code:0906
Sub. Code: 6259

2014

B.E. (Electronics and Communication Engineering)

Second Semester

EC-204: Electrical Science

Time allowed: 3 Hours Max. Marks: 50

NOTE: *Attempt five questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.*

x-x-x

I. Explain the following:-

a) Application of induction motors

b) Poles and zeros for a network

c) Two port variables

d) Need of composite filter

e) Name speed control methods (5x2)

UNIT - I

II. a) Explain electromagnetic induction and force.

b) Explain graphical method of determining the duality of networks (2x5)

III. Derive the relations between star to delta and delta to star transformations. (10)

IV. Write technical note on:

a) Superposition Theorem

b) Reciprocity Theorem (2x5)

UNIT - II

V. Explain filter and its classification in detail. Also define the propagation constant of pure reactive network and ladder network. (10)

VI. Explain terminating half section in a filter. Design constant-k and m-derived filters. (10)

VII. Explain the concept of slip and also explain the torque- slip characteristics with the help of diagram. (10)

x-x-x