Reg. No. :

Question Paper Code: 31342

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2017

Fourth Semester

Electrical and Electronics Engineering

01UEE402 - AC MACHINES

(Regulation 2013)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 2 = 20 Marks)

1. List the application of synchronous induction motor.

2. List the various losses in an induction motor.

3. Why starter is necessary for the induction motor?

4. Define crawling.

5. Define distribution factor.

6. What is meant by armature reaction?

7. Define hunting.

8. What is a synchronous condenser?

9. Why does single phase induction motor is not self starting?

10. What is universal motor?

PART - B (5 x 16 = 80 Marks)

11. (a) With a neat sketch explain the construction details of three phase induction motor. (16)

Or

(b) (i) Draw the torque-slip characteristics of a three phase induction motor at different rotor resistances. (8)

(ii) Describe with neat diagram, the principle of operation of induction generator. (8)

12. (a) Explain the star - delta and auto transformer starter with neat sketch. (16)

Or

(b) Explain any two speed control method of three phase induction motor. (16)

13. (a) List the methods for determining voltage regulation and explain any one in detail. (16)

Or

(b) Explain Blondel's two reaction theory for salient pole machines. (16)

14. (a) Explain the working principle and operation of synchronous motor. (16)

Or

(b) Explain the methods of starting the Synchronous motor. (16)

15. (a) Explain the Double field revolving theory of operation of single phase induction motor. (16)

Or

(b) Explain the operation of Reluctance motor and Universal motor with neat diagram. (16)

————————————

31342