Reg. No. :

Question Paper Code: 34032

B.E. / B.Tech. DEGREE EXAMINATION, NOV 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. Compare the types of rotor in three phase induction motor.

2. List the various losses in an induction motor.

3. Define cogging.

4. Define crawling.

5. Define distribution factor.

6. What is meant by armature reaction?

7. Define hunting.

8. Draw V curves and inverted V curves.

9. List the starting methods of single phase induction motor.

10. What is universal motor?

PART - B (5 x 16 = 80 Marks)

11. (a) Explain the principle of operation of a three phase induction motor.   (16)

Or

(b) Draw the torque-slip characteristics of a three phase induction motor at different rotor resistances. (16)

12. (a) Describe with neat diagram, the principle and working of an Auto transformer starter in three phase induction motor. (16)

Or

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

13. (a) Derive a generalized expression for emf equation of an alternator. (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 various methods of suppressing hunting. (16)

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

Or

(b) Describe the constructional features and principle of linear induction motor. (16)

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