

B.Voc Automotive Component Manufacturing**Subject: Electrical Machines and Drives****Subject Code: LBME-204****Semester: Fourth****Session: - September 2022****Theory (External): 35 Marks****Time: 03 Hours****Instructions to the Students**

1. This Question paper consists of two Sections. All sections are compulsory.
2. Section A comprises 10 questions of objective type in nature. All questions are compulsory. Each question carries 01 marks.
3. Section B comprises 8 essay type questions out of which students need to do any 5. Each question carries 05 marks.
4. Read the questions carefully and write the answers in the answer sheets provided.
5. Do not write anything on the question paper.
6. Wherever necessary, the diagram drawn should be neat and properly labeled

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SECTION –A (SHORT/OBJECTIVE TYPE QUESTIONS)
(10x 1= 10 Marks)

- A. What is efficiency of a transformer?
- B. What is the transformation ratio?
- C. What is EMF equation of transformer?
- D. Name Different types of starters.
- E. What are the applications of DC motor?
- F. What are the advantages and disadvantages of Induction Motors?
- G. What are the applications of Servo motor?
- H. What is meant by four quadrant operation?
- I. What is another name for a universal motor?
- J. What are the different starting methods of 3-phase induction motor.

SECTION – B (ESSAY TYPE QUESTIONS)
(5x 5= 25 Marks)

1. Explain the Principle, Construction and Working of Auto Transformer
2. Explain different type of methods of connection in 3-phase transformer
3. Explain the Principle, Construction and Working of 3-point starter

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4. What are the different methods of speed control of DC motors
5. What is the principle and construction of 3-phase induction motor?
6. Explain Slip –Torque Characteristics of 3-phase induction motor
7. Explain closed loop control of DC drives
8. Write short note on the following:
 - a. Universal Motor
 - b. Stepper Motor

END OF PAPER