

2101114

BACHELOR OF VOCATION

Automotive Mechatronics

Subject: Electrical Machines & Control Systems

Subject Code: ABEE-201

Semester: Third

January 2021

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 1 mark.
3. Section B comprises 8 essay type questions out of which students need to do any 5. Each question carries 5 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 labelled

Roll Number

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SECTION -A (SHORT/OBJECTIVE TYPE QUESTIONS)
(10x1=10 Marks)

- A Explain why armature core of a DC motor is made of laminated silicon sheet steel.
- B Write two points on potentiometer.
- C Explain why the induced emf in a DC motor is called back emf?
- D Define node, branch, path and loop in a signal flow graph.
- E Why DC motor has high starting current.
- F Explain why salient pole type rotors are not used in alternators driven by steam turbines.?
- G Explain the working of commutator in DC machine.
- H Explain the working of synchro transmitter and receiver.
- I Define V curves in synchronous motor.
- J Explain Mason gain's formulae.

