

2107029

BACHELOR OF VOCATION
Automotive Mechatronics (Captive)
Subject: Applied Mechatronics
Subject Code: ABME-302
Semester: Sixth
July 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. Define the limitations of semi-conductor
- B. Discuss the meaning of pulse
- C. Discuss switching characteristics
- D. Define the function of modulated inverter
- E. Define voltage
- F. Define current
- G. Define power factor
- H. Discuss the concept of linear electronics
- I. Define the industrial application of controller
- J. Discuss configuration of sequence controller



SECTION –B (ESSAY TYPE QUESTIONS)
(5x5=25 Marks)



1. Explain different types of semiconductor devices with their suitable applications.
2. Explain construction working and principle of rectifiers with neat diagram along with Industrial applications.
3. Explain construction, working and principle of Three phase converter with neat and clean diagram.
4. Explain the working of AC voltage controller with neat and clean diagram.
5. Explain the operation and characteristics of power diode with suitable example.
6. Discuss the harmonic reduction methods with suitable applications.
7. Discuss the working of Bulk converter with neat and clean diagram along with suitable applications.
8. Describe switching characteristics of semi conductor with suitable example.

==END OF PAPER==

