BACHELOR OF VOCATION
Automotive Manufacturing
Automotive Mechatronics
Subject: Basic of Electrical and Electronics Engineering
Subject Code: ZBEE-104
Semester: Second
October 2020
Theory (External): 35 Marks
Time: 03 hours

INSTRUCTIONS TO THE STUDENTS

1. Read the questions carefully and write the answers in the answer sheets.

2. Wherever necessary, the diagram drawn should be neat and properly labelled.

3. This questions paper comprises of 8 questions out of which student need to attempt any 4 questions.

4. All questions carry equal marks.

5. The time allotted will be 3 hours for examinations including time of downloading of question paper to emailing of answer books to the concerned Dean/IC.

ESSAY TYPE QUESTIONS

1. The resistance of two wires is 25Ω when they are connected in series and 6 Ω when they are connected in parallel. Calculate the resistance of each wire.

2. Explain the Characteristics and applications of a zener diode.

3. Explain the working of permanent magnet stepper motor.

4. Describe in brief the protective devices used for protection of equipment against faults

5. Three similar coils each of resistance 20Ω and inductance of 0.5 henry are connected i)star ii) delta to a 3 phase ,400 volt ,50 cycles supply. Calculate the line current and total power absorbed in each case.

6. Explain the principle and operation of single phase transformer.

7. Derive the equation for E.M.F. of a DC generator from the basic principles

8. Explain the VI characteristics of thyristor diode. Also, enlist the different applications of thyristor diode draw the I-V characteristic curve for a p-n.

*****END OF PAPER*****