

2101252

DIPLOMA OF VOCATION

Industrial Electronics

Subject: Electrical Engineering Materials and Wiring

Subject Code: EDMW-209

Semester: Third

January 2021

Theory (External): 70 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 2 marks.
3. Section B comprises 8 essay type questions out of which students need to do any 5. Each question carries 10 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)

(10x2=20 Marks)

- (A) What is the difference between conducting and semiconducting materials?
- (B) What is alloying?
- (C) What are the properties of cobalt?
- (D) Name any two insulating materials.
- (E) What is the purpose of using a fuse in the electric circuits?
- (F) What is a series circuit?
- (G) What are the applications of electric engineering materials in industry?
- (H) Name any two low resistance material
- (I) Name different types of electrical wiring.
- (J) What kind of material is used inside a fuse?

SECTION -B (ESSAY TYPE QUESTIONS)

(5x10=50 Marks)

- Q.1 What do you mean by resistance? Name two materials with high resistance and two materials with low resistance. List the application of low and high resistance materials and compare their properties.
- Q.2 Classify different semiconductor materials. How these materials are formed? Name their various applications.
- Q.3 Discuss the properties and application based on these properties for pure iron, silicon steel, Alnico and ferrites.
- Q.4 Classify insulating materials and explain general properties of insulating materials.
- Q.5 Name the different types of wires and switches.
- Q.6 Make the clear sketch for stair case wiring and explain it.
- Q.7 Explain in details about the selection of numbers of sub circuits and selection of wires/cable for an electrical installation.
- Q.8 What are the different wiring accessories required for the proper installation of wiring at a new industrial location. Explain uses of the required accessories assuming the installation is carried out first time in that location.

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