NETTUR TECHNICAL TRAINING FOUNDATION

DIPLOMA IN MECHATRONICS ENGINEERING & SMART FACTORY – CP15

II SEMESTER REGULAR & SUPPLEMENTARY EXAMINATION-JUNE 2023

Subject: Electrical Engineering-II **Total Time: 2 Hr.**

Subject Code: CP15205T **Total Marks: 50**

PART B

1.0 ANSWER ANY EIGHT OF THE FOLLOWING **2*8=16**

1.1 List down the different types of magnetic materials

1.2 List some of the equipment work based on the principle of electromagnetic induction.

1.3 How to identify the transformer is step up or step down?

1.4 Why transformer rating is in kva?

1.5 Write the EMF equation of D.C Generator & explain each terms

1.6 List the speed control method of DC motor.

1.7 Why AC generator is also called as an alternator?

1.8 Why the single-phase induction motor is not self-starting?

1.9 Write the main parts of a 3 phase induction motor.

1.10 Write some applications of PMDC motor

2.0 ANSWER ANY SIX OF THE FOLLOWING **3*6=18**

2.1 With neat diagram explain the working principle of transformer

2.2 Write the relation between Magnetism and Electricity

2.3 List and explain the parts of DC generator

2.4 Write the classification of DC Motor.

2.5 Write a short note on different types of transformer losses

2.6 What is braking? Brief the mechanical braking and electrical braking.

2.7 Write the functions of slip rings & brushes of AC generator.

2.8 What is servo motor and write its working principle?

3.0 ANSWER ANY FOUR OF THE FOLLOWING **4*4=16**

3.1 Draw and explain about the three phase transformer configuration.

3.2 Explain the different types of induced EMF with an example.

3.3 Differentiate AC generator and DC generator.

3.4 Explain various starting methods of induction motors.

3.5 Explain about the auto transformer construction and its working with neat sketch

3.6 Draw and explain the classification of self-excited DC generator.