

NETTUR TECHNICAL TRAINING FOUNDATION
DIPLOMA IN ELECTRICAL & ELECTRONICS – CP23
IV SEMESTER REGULAR & SUPPLEMENTARY EXAMINATION-JULY 2023

Subject: Electrical Machines-II
Subject Code: CP23402T

Total Time: 2 Hr.
Total Marks: 50

PART B

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

- 1.1 Name two types of instrument's transformer and its uses.
- 1.2 What is all-day efficiency?
- 1.3 Name two losses which directly take place in core of the transformer.
- 1.4 Write the ways of classification of alternators.
- 1.5 State the characteristic features of synchronous motor.
- 1.6 Name any two methods of starting a synchronous motors
- 1.7 State the condition for maximum torque in induction motor
- 1.8 List out three factors for which tapping is necessary.
- 1.9 Define an Electric Motor.
- 1.10 Name the different types of single phase Synchronous motors.

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

- 2.1 Explain the causes of changes in voltage in alternators when loaded.
- 2.2 State the advantages and disadvantages of three dark lamps method of synchronizing.
- 2.3 Explain how a synchronous motor is a constant speed motor
- 2.4 Distinguish between synchronous phase modifier and synchronous condenser.
- 2.5 Explain the term SLIP in Induction Motor.
- 2.6 Write a short note on auto transformer
- 2.7 List the factors that affect the load sharing in parallel operating generators
- 2.8 Explain the reason why single phase induction motor does not self-start?

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

- 3.1 Why does the efficiency of distribution transformer is 60 to 70 % and not 100%?
- 3.2 State the reasons for laminating the core of alternator.
- 3.3 State the condition to be satisfied before connecting two alternators in parallel.
- 3.4 Write down the advantages and disadvantages of Induction Motors.
- 3.5 Write down the methods to control speed of wound rotor motors?
- 3.6 What are the types of armature windings in alternator and mention its advantages & disadvantages

