**Assignment # 3 [CLO4] EE-260 Electrical Machines-Fall 2022**

**(To be submitted by 5th Dec 2022)**

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Student ID: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Section: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Marks: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Task 1 [2+2 points]**

The Purpose of this task is to familiarize yourself with an important concept of CIRCLE DIAGRAM. Prepare the assignment yourself by properly understanding the concept as the contents covered in this assignment can be the part of your End Semester Exam.

a). What is a CIRCLE DIAGRAM for an Induction Motor and what is its importance?

b). How to draw a CIRCLE DIAGRAM for an Induction Motor and what are its main parts?

**Task 2 [2+3+1 points]**

The Purpose of this task is to familiarize yourself with important concepts of Single-Phase Induction Motor. Prepare the assignment yourself by properly understanding the concepts as the contents covered in this assignment can be the part of your End Semester Exam.

a). Explain the Working Principal of a SINGLE-PHASE INDUCTION MOTOR.

b). What are the different types of SINGLE-PHASE INDUCTION MOTOR? Explain their working and specific applications?

c). How SINGLE-PHASE INDUCTION MOTOR’s speed is controlled?

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**Notes:**

1. Please use standard A-4 size paper for the assignment and leave reasonable margins on the top bottom left & right.
2. Neatly write down all the concepts and elaborate with the help of clear and understandable diagrams/figures.
3. Marks will be deducted for roughly done and not properly explained concepts.