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Class Roll No.....

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Enrollment No.....

LNCTU

**II MID-SEM EXAMINATION (Jan-2024)**  
**ELECTRICAL & ELECTRONICS ENGINEERING (CS-106)**

Time: 1½ Hrs.

Maximum Marks: 20

NOTE: Attempt all questions.

Q.1. Explain the concept of voltage regulation in a single phase transformer  
CO3 (7 Marks)

OR

A 20 KVA, 1000/200 V, 50 Hz transformer has core loss and copper loss as 400 watt and 600 watt respectively under the full load condition. Calculate the efficiency at full load 0.8 power factor. At what percentage of full load the efficiency be maximum.  
CO3 (7 Marks)

Q.2. Explain the working of three phase induction motor.  
CO4 (7 Marks)

OR

Give the classification of DC motor with suitable circuit diagram.  
CO4 (7 Marks)

Q.3 Explain working of P-N junction diode in detail.  
CO5 (6 Marks)

OR

Write a short note on half adder and full adder.  
CO5 (6 Marks)