



CVR COLLEGE OF ENGINEERING

____UGC Autonomous Institution - Affiliated to JNTUH

B.Tech. II Year II Sem

Subject: **Electric Circuits-2**

Branch: *EEE*

Assignment 1

Issue Date: 16-05-22

Submission Date:23-05-22

Answer all questions.

1. a) What is incidence matrix. Write the properties of Incidence matrix
b) What are dual networks. Explain the concept of building dual networks with example

2. (a) Explain the features of Switch Fuse Unit
(b) What are batteries. Give the classification with examples

3. (a) Explain two watt meter method for measurement of active power in a 3-phase system with a neat circuit diagram and phasor diagram
(b) A 3-phase ,400V,50Hz balanced source is supplying power to a balanced load. Determine the line currents , power and power factor if the load is
(i) star connected and per phase load is $(6+j8)$
(II) Delta connected and per phase load is $(6+j8)$

4. (a) Determine the transient response of series RL circuit excited by constant DC supply. Draw the complete response curve

(b) A series RL circuit with $R= 20\Omega$ and $L= 0.5H$ is excited by constant DC voltage of 200V.Determine (i) the complete solution for Current (ii) voltage across inductor after one time constant
