## J.C. Bose University of Science and technology, YMCA, Faridabad B. Tech 1° semester Mechanical Engineering (M12) Sessional 1" (Basics of Flectrical Technology)

## Max. Time 90 minutes

Max. Marks 15

Note: - Attempt any three. All question carry equal marks.

- Q1. State and explain the maximum power transfer theorem with suitable example.
- Q2. Using Nodal analysis method, find the each branch current in figure 1.

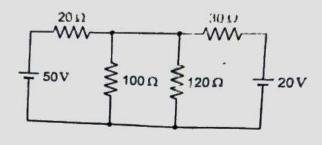


Figure.1.

Q3. Find the current in  $6\Omega$  resistor in circuit given below in figure 2 using Norton theorem.

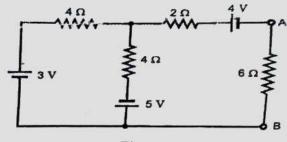


Figure 2.

Q4. Find the current in  $6\Omega$  resistor using superposition theorem in figure 3 given below.

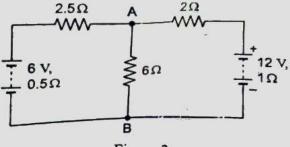


Figure 3