NATIONAL INSTITUTE OF TECHNOLOGY, KURUKSHETRA
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
SESSIONAL-I
CIRCUIT THEORY (ECPC-101)

TIME: 45 MINS

MAX. MARKS: 20

1. Find the voltage drop across 5Ω resistor in the network shown in Fig. 1 using nodal analysis. 5 Marks

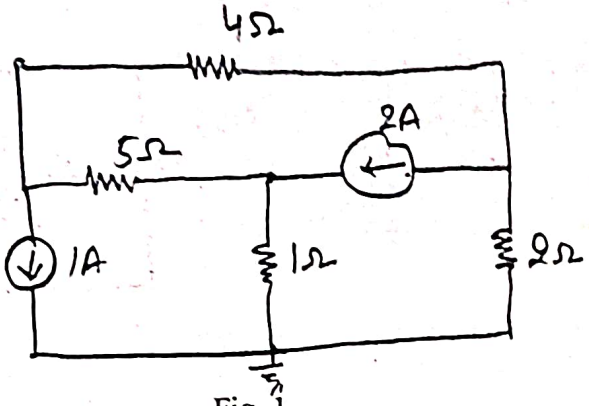


Fig. 1

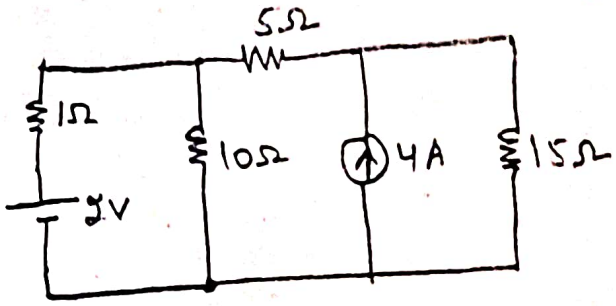


Fig. 2

2. In Fig. 2, find the current through 10Ω resistor using mesh analysis. 5 Marks
3. In Fig. 3, find $v_x$ using superposition theorem 5 Marks

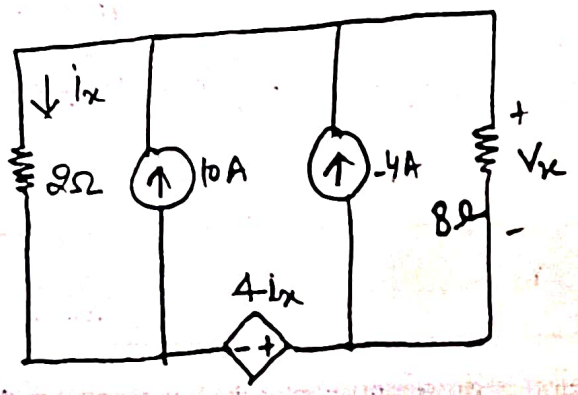


Fig. 3

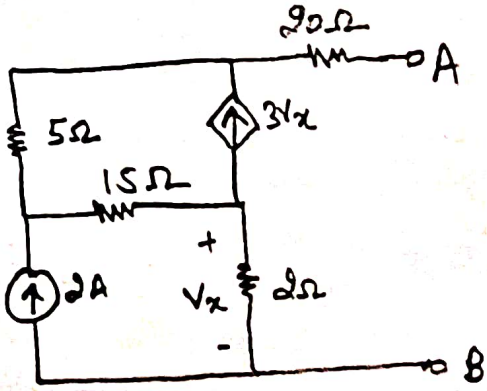


Fig. 4

4. Find the Norton's equivalent circuit across the terminals *A-B* in Fig. 4. 5 Marks