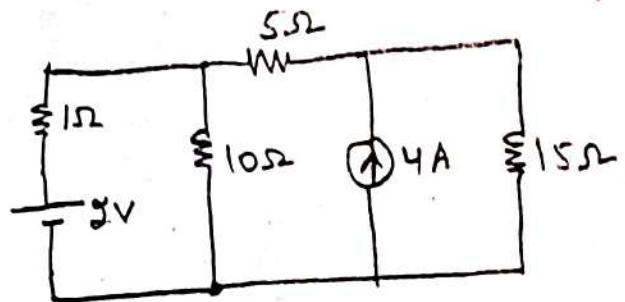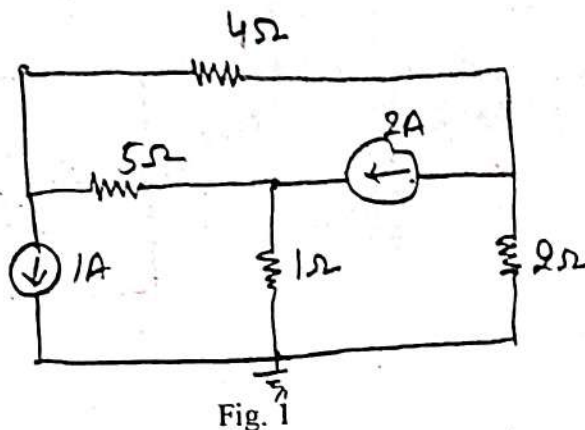# NATIONAL INSTITUTE OF TECHNOLOGY, KURUKSHETRA
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
SESSIONAL-1
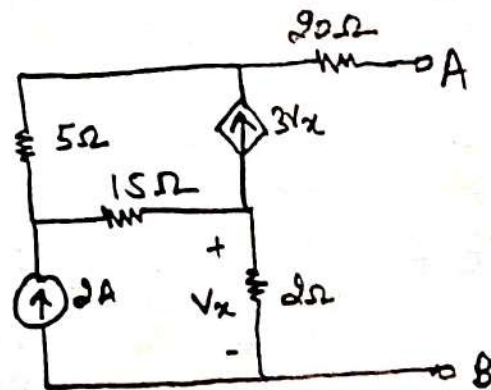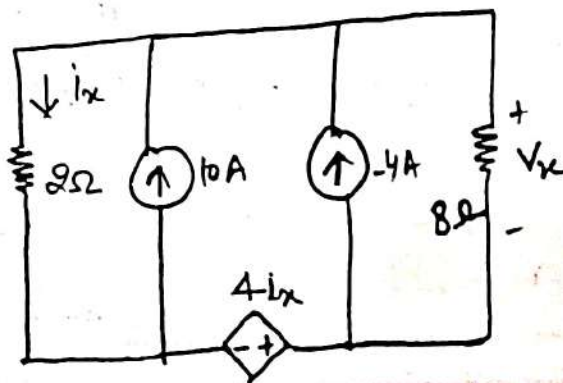### CIRCUIT THEORY (ECPC-101)

MAX. MARKS: 20

TIME: 45 MINS

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