

RAMRAO ADIK INSTITUTE OF TECHNOLOGY

Electronics Engineering Department

B

FE-I (Sem-I)

Term Test -I

SUB: Basic Electricals and Electronics Engineering

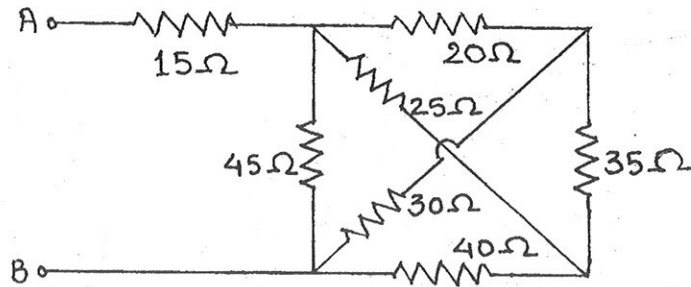
Time: 1 hr

YEAR : 2014-15

Max. Marks: 30

Q.1 a) Find the equivalent resistance between A and B

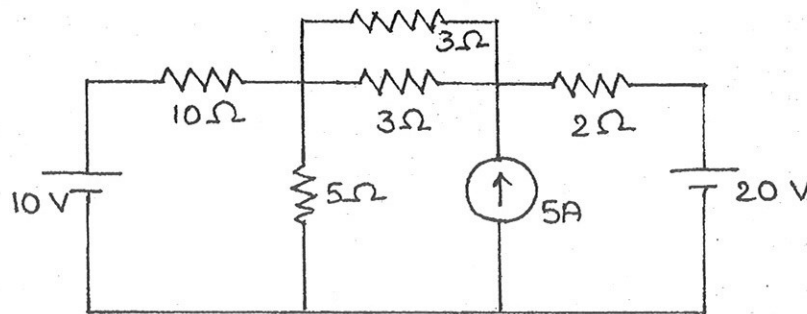
( 12M )



OR

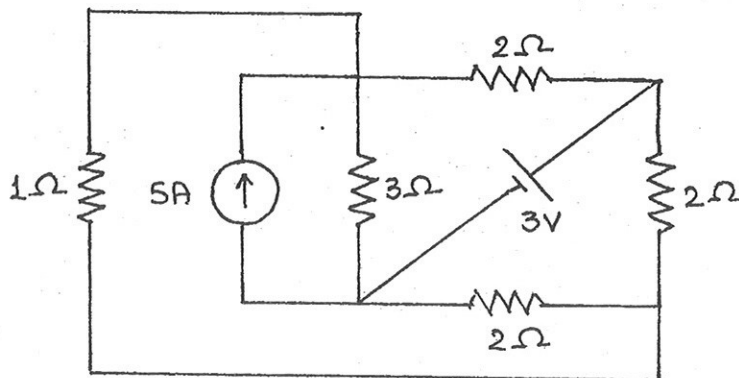
b) Determine current through 10 Ω by nodal analysis

( 12M )



Q.2 a) Determine current through 1 Ω by using Superposition theorem

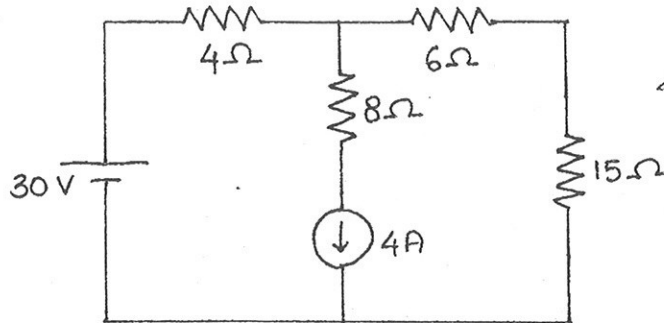
( 12M )



OR

b) Using Norton's theorem calculate current through  $15\ \Omega$  resistance

( 12M )



Q.3 a) An alternating current is given by  $i=14.14\sin 377t$

( 6M )

Find

- rms value of current
- frequency
- instantaneous value of current when  $t=3\text{msec}$
- time taken by current to reach  $10\text{A}$  for the first time after passing through zero

OR

b) Find rms value of following waveform

( 6M )

