

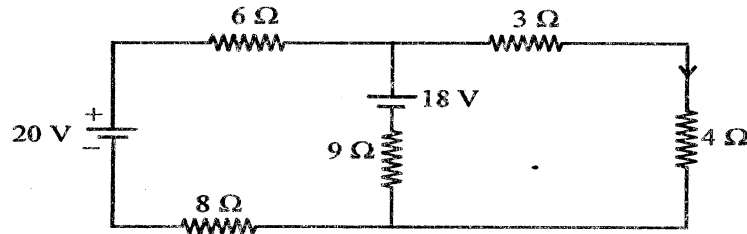
(4)

TEE-101

5. (a) Define Active, Reactive and Apparent Power with power triangle and also give significance of power factor. (CO2)

OR

- (b) Calculate current in 4 ohm resistor using Norton's theorem. (CO2)



TEE-101

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Roll No. 229V038

TEE-101

B. TECH. (FIRST SEMESTER)

MID SEMESTER

EXAMINATION, Nov., 2022

BASIC ELECTRICAL ENGINEERING

Time : 1½ Hours

Maximum Marks : 50

Note : (i) Answer all the questions by choosing any *one* of the sub-questions.

(ii) Each sub-question carries 10 marks.

1. (a) Define the following : (CO1)

(i) Active and Passive Elements

(ii) Linear and non-linear elements

(iii) Bilateral and unilateral elements

(iv) Differentiate between (I) Mesh and Loop (II) Node and Junction along with diagrams

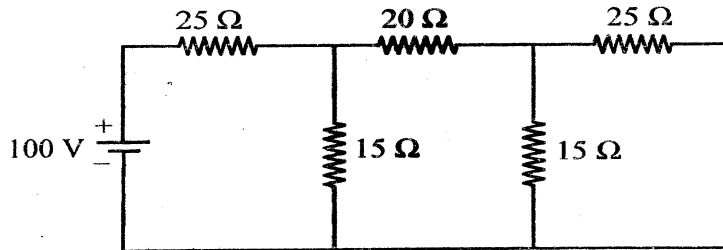
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(2)

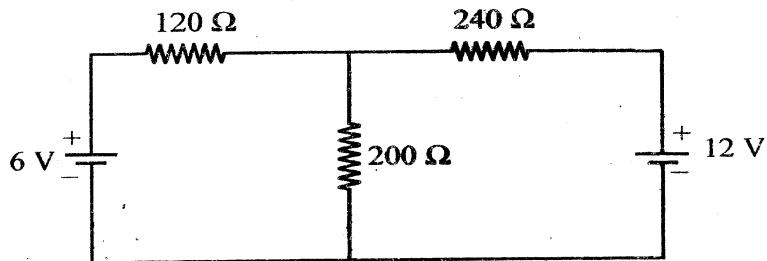
TEE-101

OR

- (b) Calculate current in all resistors using nodal analysis. (CO1)



2. (a) Calculate current in 240 ohm resistor using superposition theorem. (CO1)



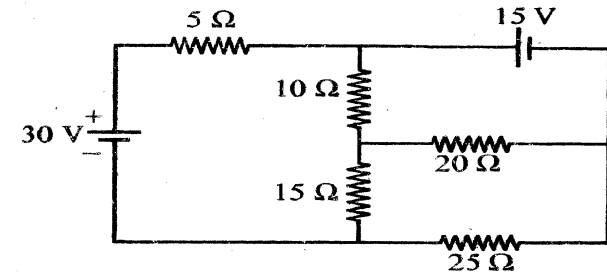
OR

- (b) State the maximum power transfer theorem and derive the formula of the maximum power transferred. (CO1)

(3)

TEE-101

3. (a) Calculate current in each mesh using mesh analysis. (CO1)

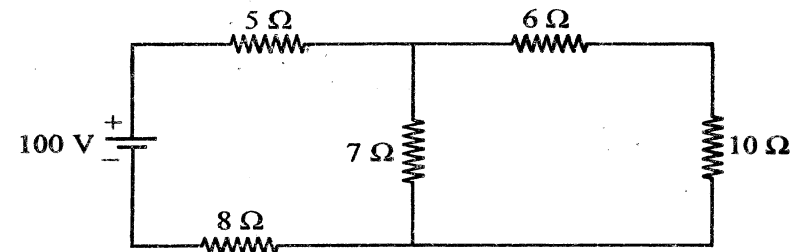


OR

- (b) State and prove Superposition Theorem along with an example. (CO1)
4. (a) Differentiate between Thevenin's and Norton's theorem on the basis of steps and circuit diagram. (CO1)

OR

- (b) Calculate current in 10 ohm branch using Thevenin's theorem. (CO1)



P. T. O.