Mr. Pradecp harg

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY WAKNAGHAT

T-1 EXAMINATION (FEBRUARY 2020)

B.Tech 2nd Sem. (ECE/CSE/IT/CE)

COURESE CODE: 10B11EC211

MAX. MARKS: 15

COURSE NAME: Electrical Sciences

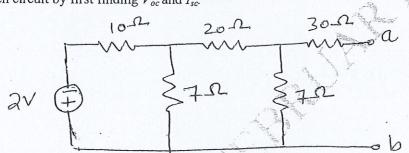
COURSE CREDITS: 4

MAX. TIME: 1 Hr.

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means. CO indicates Course Outcomes.

Q1. (a). Obtain a value for the Thevenin equivalent resistance seen looking into the open terminals of the given circuit by first finding V_{oc} and I_{sc} .

[4]

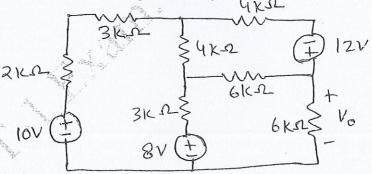


(b). Write down the statement of Super position theorem.

[1]

Q2. (a). In the given circuit find V_0 using mesh analysis.

[4] [co-1

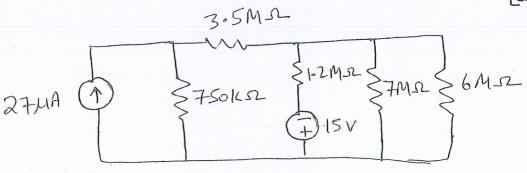


(b). What is Maximum power theorem?

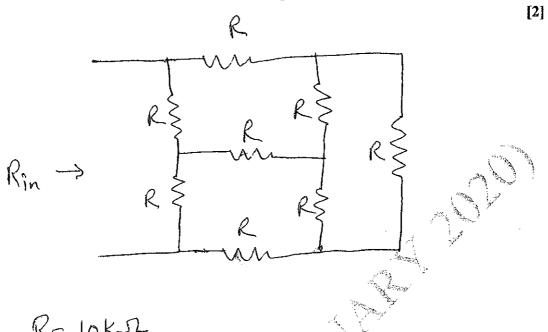
[1]

Q3. (a). Using repeated source transformation, reduce the given circuit to a voltage source in series with a resistor, both of which are in series with the $6M\Omega$ resistor.

[3] [CO-1]



(b). Determine the effective resistance R_{in} of the given network. Each resistance is of $10 \mathrm{k}\Omega$



R= loks