SMT. INDIRA GANDHI COLLEGE OF ENGINEERING

FE DEPARTMENT

SEM: I SUB: BEE BRANCH: ALL

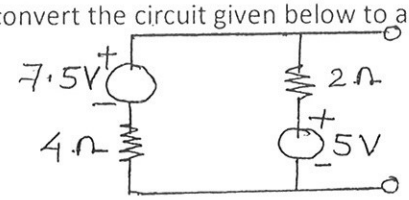
TIME: 1 HOUR MARKS: 20

Note: (1) Question No. 1 is compulsory.

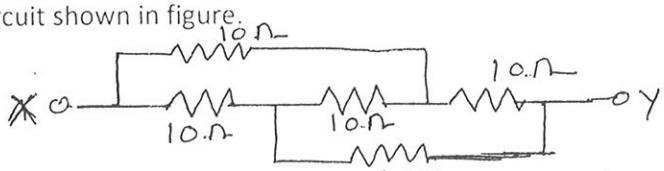
(2)Attempt any three from remaining Questions.

Q1 A. State and explain maximum power transfer theorem. (3)

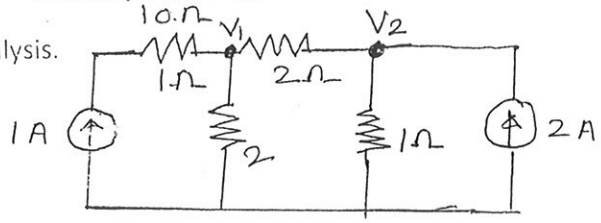
B. Using source transformation, convert the circuit given below to a single voltage source In series with a resistor. (2)



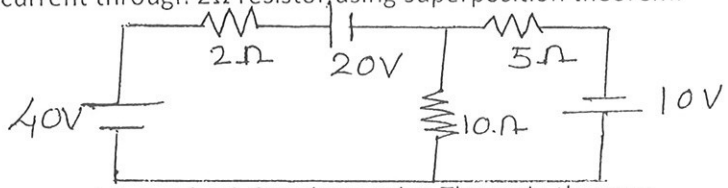
Q2. Calculate R_{XY} for the circuit shown in figure. (5)



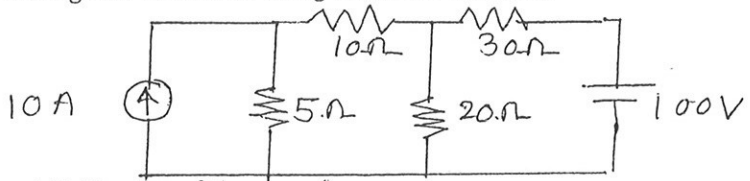
Q3. Find the voltage V1 and V2 using Nodal analysis. (5)



Q4. Find the current through 2Ω resistor using superposition theorem. (5)



Q5. . Find the current through 10 Ω resistor using Thevenin theorem. (5)



Q6. Find the average and RMS value of the waveform. (5)