

Total No. of Pages: 03

B.Tech.(all branches)

MID SEMESTER EXAMINATION

EE-102: Basic Electrical Engineering

Time: 1 h 30 minutes

Max. Marks: 30

Roll No. 1756

IInd Semester

(March.-2017)

Note: All Questions are compulsory. Question no. 1 to 7 carry 2 marks each and Question 8 to 11 carry 4 marks each. Special material required-Graph Paper. Assume suitable missing data, if any.

1. Verify superposition theorem for $y = f(x) = 7x + 3$.
2. What will happen if Switch is closed in the following Fig. 1.

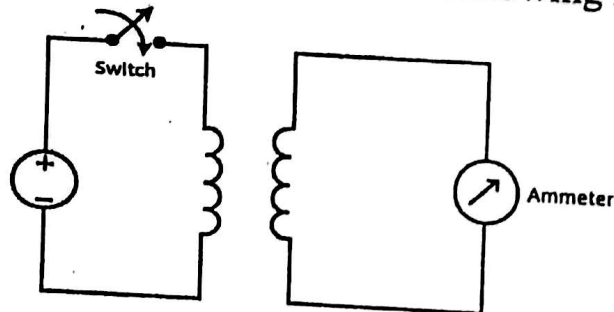


Fig. 1

3. Fig. 2 shows one node of an electric circuit, using KCL, find V_1 . Given $V_2 = 5e^{-2t}$, $V_3 = 2e^{-2t}$ and $i_1 = 2e^{-2t}$

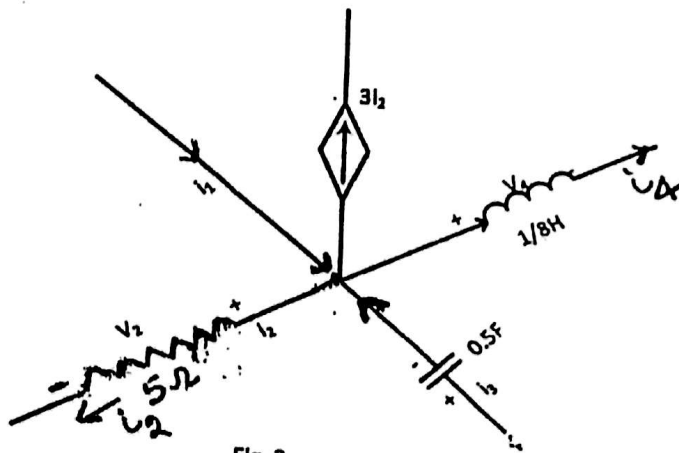


Fig. 2

4. An AC current of $(4+j3)$ A flows through a resistance of 10Ω . Find the real power consumed.

P.T.O.