

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)

DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING

Mid-Semester Examination

Course No.: EEE 4201

Course Title: Electrical Circuit II

Summer Semester, A.Y. 2019-2020

Time: 30 Minutes

Full Marks: 25

Marks in the margin indicate full marks. It is an open book exam. Students are not allowed to use any keyboard and mobile during the examination time. Assume suitable values for any missing data.

All questions must be answered

1. a) For the coupled coils in Fig. 1(a), calculate the total impedance between terminals a-b. 03

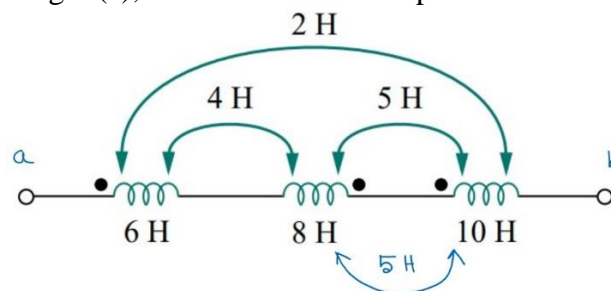


Fig. 1(a)

- b) For the Circuit in Fig. 1(b), find i and v_x . Assume, $i(0) = \text{last 2 digits of your student id.}$ 08

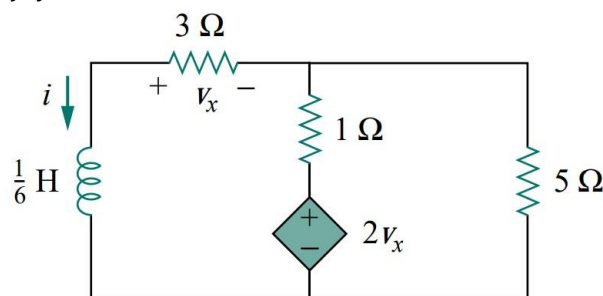


Fig. 1(b)

- c) Given the network in Fig. 1(c), find $v(t)$ for all $t > 0$. 14

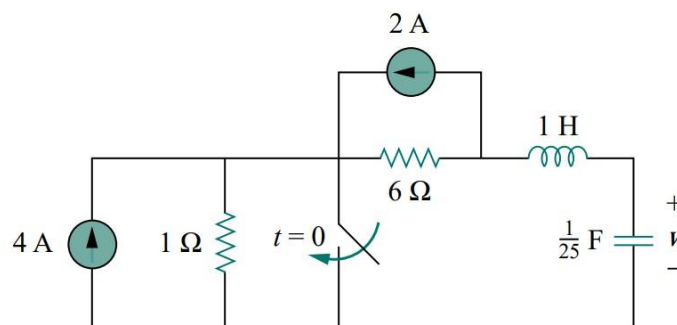


Fig. 1(c)