KING FAHD UNIVERSITY OF PETROLEUM & MINERALS

ELECTRICAL ENGINEERING DEPARTMENT

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EE-465

Key Solutions

Quize # 3 Serial # Name: I.D.#

Circle the correct answer.

1) The traveling voltage waveform along a lossless transmission line is given in the time domain as $\frac{\partial v(x,t)}{\partial x} = -L\frac{\partial i(x,t)}{\partial t}$. The Laplace Transform of this traveling wave is

a. $\frac{dV(x,s)}{dx} = -L\frac{dI(x,s)}{ds}$

b. $\frac{dV(x,s)}{dx} = -sL\frac{dI(x,s)}{ds}$

c. $\frac{dV(x,s)}{dx} = -sLI(x,s)$

d. $\frac{dV(x,s)}{dx} = -LI(x,s)$

(5 Marks)

2) If the receiving-end impedance of a lossless transmission line is equal to the surge impedance and its Thevenin's impedance on the sending-end is equal to zero, the reflection coefficients at the receiving-end and sending-end, respectively, are

a. 1 and 1

b. 0 and 1

c. 0 and -1

d. 1 and 0

(5 Marks)