

King Fahd University of Petroleum and Minerals

Electrical Engineering Department

EE 204: Fundamentals of Electric Circuits

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Term: 062

Quiz # 1

SR # _____

ID # _____

Name: _____

Sec # 4

A **current** has a wave form described by:

$$i(t) = \begin{cases} 0 & \text{for } t < 0 \\ 10e^{-3t} & \text{for } t \geq 0 \end{cases} \quad \text{A . Calculate:}$$

- the positive **charge** $q(t)$ for $t < 0$
- the positive **charge** $q(t)$ for $t \geq 0$
- the **net** positive **charge** at $t = 5$