

UNITED INTERNATIONAL UNIVERSITY (UIU)

Dept. of Computer Science & Engineering

Trimester: Spring 2024 (Class Test 1)

Course No: EEE 2113 Course Title: Electrical Circuits

Q1. The charge flowing in a wire having $20\ \Omega$ resistance is shown in Figure 1. Answer the following questions:

i) Clearly sketch the corresponding current and find current at $t = 2.5$ sec and $t = 5.5$ sec. [5]

ii) Determine the time when maximum power is delivered to the element. Also, find the maximum power. [5]

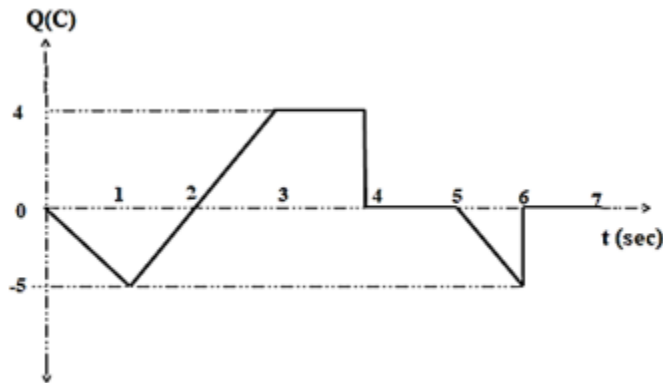
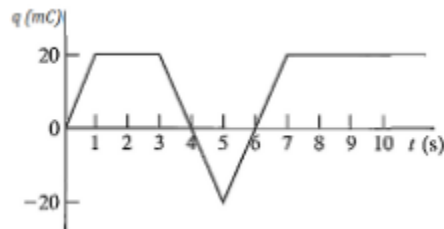


Figure 1.

Q2. The charge flowing through a 2Ω resistor is given below:



a) Derive the equation of current of this resistor and sketch it as a function of time. [7]

b) Calculate the total energy delivered between 0 sec and 3 sec. [3]