North South University
Department of Electrical and Computer Engineering
EEE/ETE 111L ; Section: 07

Quiz 01

ANSWER ALL THE QUESTION

Total Marks: 20 (Time: 35 Minutes)

N.B.: Don't forget to use correct unit!

1. *In the lab experiments we examined different types of rectifier circuits.* — 7 pt
   a. How many types of rectifier circuits are there? Name them. — 3
   b. Why did we use capacitor in parallel with the load resistor? — 2
   c. Between the capacitors of values 0.22 µF and 10 µF which one was more preferable? — 2

2. *Consider the circuit of figure A.* — 7 pts
   a. What is the name of the circuit of the output waveforms of figure-1.**b**? — 2
   b. Write the name of all equipments clearly to construct and implement the circuits of **(a & b)** given below. — 5

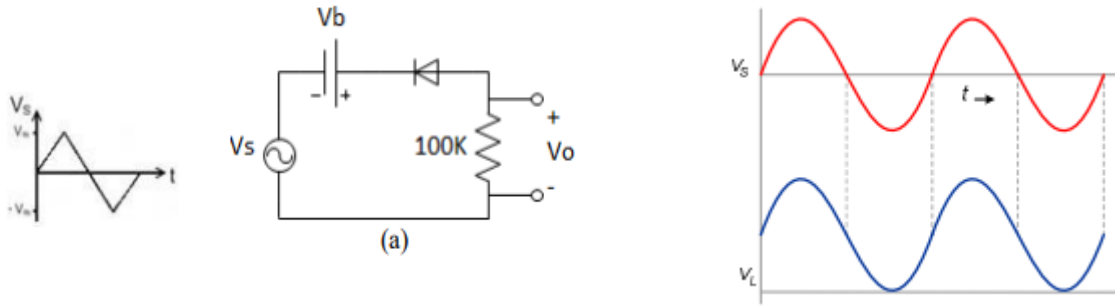

Figure: 01

3. *In the lab experiments we used two types of diode.* — 3 pts
   a. In the study of I-V characteristics of diode, how did you find Q-point? — 1
   b. While studying Diode 02, how did you test that it acts as a voltage regulator? — 2
   c. From the experiments explain how is **Diode -01** different from a **Diode-02**? — 2

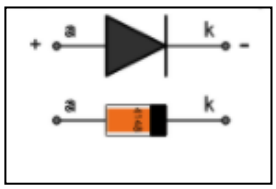

Figure 02: **Diode -01**

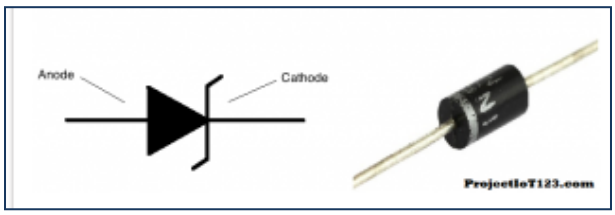

Figure 02: **Diode- 02**

4. Choose/ write the best answer. *3*

i. DC power must should be connected to forward bias as follows:
   A. +anode, -cathode
   B. +cathode, - anode
   C. +anode, +cathode
   D. –anode, -cathode

ii. *Providing a constant output regardless of ac input or load resistance changes is the function of a:*
   A. Filter
   B. Transformer
   C. Rectifier
   D. Regulator

iii. *If the frequency of the applied ac signal to a half wave rectifier is 100 Hz, the frequency of the pulsating dc output would be*
   A. 25 Hz
   B. 50Hz
   C. 100 Hz
   D. 120 Hz

iv. *Ideally the voltage drop across a conducting diode is .....*

v. *Zener diodes allow a current to flow in the reverse direction, when the volatge reaches to above a certain value. (True/ False)*

vi. *When reverse breakdown occurs in a diode –*
   A. Voltage increases & current is constant
   B. Voltage and current increase exponentially
   C. Voltage is constant & current increases
   D. No change happens