Roll No. ..... Total Pages : 2

BT-2/M-14 **8222**

ELEMENTS OF ELECTRONICS ENGINEERING

Paper–EL-101-E

(2004-2007)

Option–I

Time Allowed : 3 Hours] [Maximum Marks : 75

Note : Attempt **five** questions in all, selecting at least **one** question from each Unit. All questions carry equal marks.

UNIT–I

1. (a) Describe the working of Bridge Rectifier. 7

   (b) Explain Zener diode as a voltage regulator. 8

2. (a) Explain the operation of LED with its characteristics. 8

   (b) Determine V_0 for network of Fig. 1 for the input shown : 7

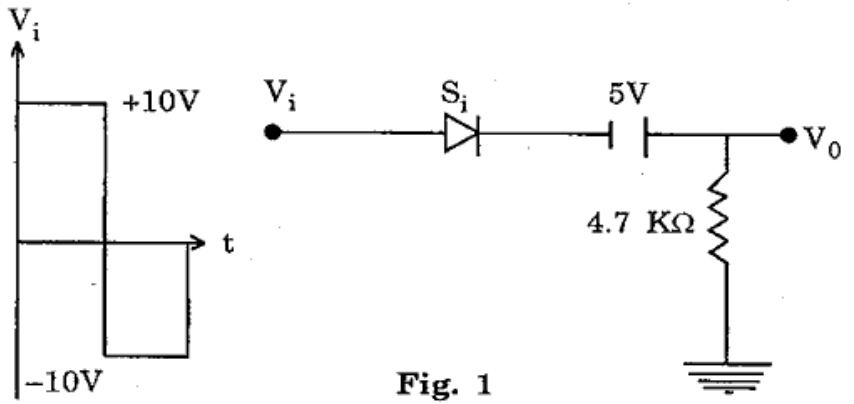

Fig. 1

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UNIT–II

3. Explain the concept of d.c. and a.c. load line. How the operating point is selected? 15

4. Find h_{re} in terms of the Common Base (CB) h-parameters. Also draw the CB hybrid model. 15

UNIT–III

5. (a) Explain the operational amplifier as differentiator. 8

   (b) Describe the working of differential amplifier and its transfer characteristics. 7

6. (a) Explain the operational amplifier as an integrator. 8

   (b) List the different characteristics of ideal Op-Amps. 7

UNIT–IV

7. (a) Explain the working of UJT. 8

   (b) Draw and explain the transfer characteristics of p-channel JFET. 7

8. (a) Write a short note on TRIAC. 8

   (b) Explain the working principle of p-channel enhancement type MOSFET. 7

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