

**3E2072**

Roll No. : \_\_\_\_\_

Total Printed Pages : **4****3E2072****B.Tech. (Sem. III) (Main/Back) Examination, January - 2012****Computer Engg. & Information Tech.****3IT2 & 3CS2 Electronics Devices & Circuits**Time : **3 Hours**][Total Marks : **80**[Min. Passing Marks : **24****Instructions to Candidates :**

Attempt any **five questions** selecting **one question** from each **unit**. All questions carry **equal marks**. Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.

Use of following supporting material is permitted during examination.  
(Mentioned in form No. 205)

1. \_\_\_\_\_ Nil \_\_\_\_\_

2. \_\_\_\_\_ Nil \_\_\_\_\_

**UNIT - I**

- 1 (a) Differentiate between Zener and Avalanche breakdown in zener diode. Give voltage values for which zener and avalanche breakdown takes place in a zener diode ?

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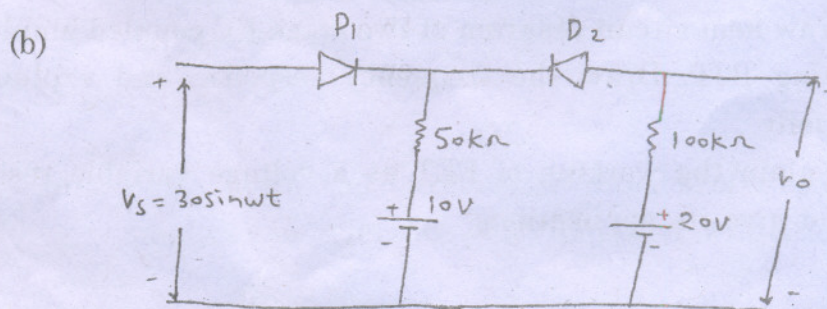
- (b) Explain continuity equation with suitable diagram and mathematical relation.

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**OR**

- 1 (a) Explain the working and principle of a voltage quadrupler circuit with neat diagram.

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**Fig. 1**