Roll No.

Total No. of Pages: 02

Total No. of Questions: 09

B.Tech. (EE/EEE) (Sem.-3rd)

ELECTRONIC DEVICES AND CIRCUITS

Subject Code: BTEE-304 (2011 Batch)

Paper ID : [A1137]

Time: 3 Hrs.

Max. Marks: 60

INSTRUCTION TO CANDIDATES :...

- SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
- SECTION-B contains FIVE questions carrying FIVE marks each and students has to attempt any FOUR questions.
- SECTION-C contains THREE questions carrying TEN marks each and students has to attempt any TWO questions.

SECTION-A

1. Write briefly:

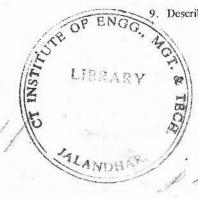
- (a) Give the expression for diffusion and drift current densities of holes.
- (b) What is the difference between biased and unbiased clipper?
- (c) Where is bleeder resistor used in filters and why?
- (d) How is emitter efficiency improved in a junction transistor?
- (e) Why is input impedance higher in MOSFET as compared to JFET?
- (f) How do you classify power amplifiers?
- (g) Define slew rate. What causes slew rate?
- (h) What is the function of discharge and threshold in 555 Timer IC?
- (i) What are multivibrators?
- (j) What is SMPS?

SECTION-J

- Draw and explain the circuit of a diode is clamped to zero volts.
- 3. In an NPN silicon transistor $\alpha_{dc} = 0$. Determine I_c , I_B , β_{dc} and I_{CEO} .
- Sketch and explain the CB input and o NPN transistor.
- 5. Discuss the operation and frequency active filter.
- 6. What is the difference between compara

SECTION-

- 7. Discuss the operation of half wave a Compare their performance. How is a extended to work as voltage tripler?
- Discuss the application of op-amp as i and how are they overcome using pract
 - Describe various current limiting technic



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