

D 26594

Name:

Reg. No.

**COMBINED FIRST AND SECOND SEMESTER B.TECH.
(ENGINEERING) DEGREE EXAMINATION, DECEMBER 2006**

AM/ME 04-109—BASIC ELECTRONICS ENGINEERING

(2004 admissions)

Time : Three Hours

Maximum : 100 Marks

Answer all questions.

Each correct answer carries 5 marks.

- I.
- 1 What are the basic principles of a PN-junction ?
 - 2 Compare LCD and LED in terms of power required.
 - 3 Draw bridge rectifier and mention its futures.
 - 4 What are conditions for oscillations and how are they met in practical circuits ?
 - 5 Draw all the three basic gates in terms any of the universal gates.
 - 6 Draw the simplified block diagram of a micro controller.
 - 7 Classify transducers according to the parameter measured.
 - 8 What are thermocouples ? What is it made up of ?

Answer all questions.

Each correct answer carries 15 marks.

- II.
- 1 Draw the V-I characteristics of SCR and explain qualitatively.

Or

- 2 Draw the input and output characteristics of a PNP based common emitter configuration and mark the three regions in its output curve and explain.

- III.
- 1 Compare all the filters available qualitatively.

Or

- 2 Draw a single stage RC coupled amplifier and emphasize the need for each component.

- IV.
- 1 Draw a decade counter using JK flip-flops and explain its operation with the help of waveforms at all the output (2) points.

Or

- 2 Explain the internal architecture of 8085.

- V.
- 1 Draw the schematic of LVDT and explain its constructional features. What parameter is measured ? Explain with a simple illustration.

Or

- 2 What is the need for induction heating ? How is this done ? Explain with a circuit.