

B.TECH DEGREE EXAMINATION, MAY 2011

MODEL QUESTION PAPER

COMBINED FIRST & SECOND SEMESTER

Common to all Branches

EN010 109 BASIC ELECTRONICS ENGINEERING

Time: Three Hours

Maximum: 100 marks

Part A

Answer all questions.

Each question carries 3 marks.

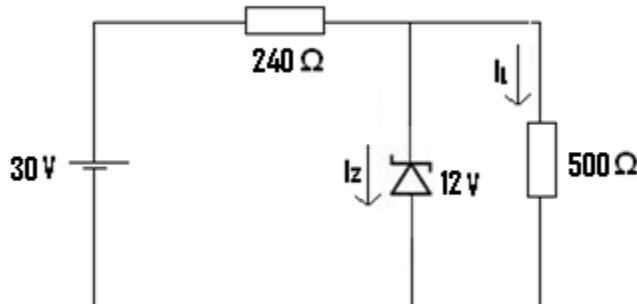
1. List the advantages of Integrated Circuits.
2. Explain the needs for modulation.
3. Define hand off in mobile communication.
4. Explain Strain gauge.
5. Which type of architecture 8085 has? Explain?

Part B

Answer all questions.

Each question carries 5 marks

6. A variation of $5 \mu\text{A}$ in the base current produces a change of 1.2 mA in the collector current. Collector to emitter voltage remains fixed during this variation. Calculate the current amplification factor β_{dc} .
7. For the circuit shown below, find the (i) load current I_L (ii) Zener diode current I_Z . The breakdown voltage of Zener diode is 12V .



8. Derive the equation for modulation index in AM.
9. Derive the gauge factor for Strain gauge.
10. Explain the concept of Operating system? Explain different types of operating systems?

Part C

Answer any one question from each module

Each full questions carries 12 marks.

MODULE 1

11. With neat circuit diagram explain the working of RC coupled amplifier and its frequency response.

OR

12. Describe bridge rectifier with filter circuit and derive an expression for rectification efficiency.

MODULE 2

13. With a neat block diagram explain super heterodyne receiver.

OR

14. Explain with block schematic satellite communication.

MODULE 3

15. Write short notes on a) LVDT b) Thermistor

OR

16. Describe the block schematic of PAL TV receiver.

MODULE 4

17. Explain different types of memory and input output devices?

OR

18. Explain the concept of single bus and multi bus organization with neat diagram?

MODULE 5

19. Explain the difference between Procedure Oriented Programming and Object Oriented programming with examples?

OR

20. Explain

- i) Low Level Languages
- ii) IP Addresses
- iii) Domain Name System

