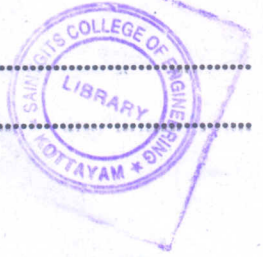


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Reg. No.....

Name.....



**B.TECH. DEGREE EXAMINATION, MAY 2015**

**First and Second Semester**

EN 010 109—BASIC ELECTRONICS ENGINEERING AND INFORMATION TECHNOLOGY

(New Scheme—2010 Admission onwards)

[Regular/Improvement/Supplementary]

{Common for all branches}

Time : Three Hours

Maximum : 100 Marks

**Part A**

*Answer all questions.*

*Each question carries 3 marks.*

1. State the advantages of a Fullwave rectifier.
2. Give the advantages of Mobile Communication.
3. What is meant by Von Neumann architecture ?
4. What is interlaced scanning ?
5. What is procedural programming ?

(5 × 3 = 15 marks)

**Part B**

*Answer all questions.*

*Each question carries 5 marks.*

6. In a common emitter amplifier an input resistance of  $400 \Omega$  and a load resistance of  $40 \text{ k}\Omega$  are there. Calculate the voltage gain and power gain of the amplifier if  $\beta = 100$ .
7. What is the importance of modulation index ?
8. What is meant by interlaced scanning ?
9. Explain the significance of a Cache memory.
10. Differentiate between System software and Application software.

(5 × 5 = 25 marks)

**Turn over**

**Part C**

*Answer all questions.  
Each full question carries 12 marks.*

11. Explain how Zener diode is used as a voltage regulator.

*Or*

12. Compare BJT and FET device characteristics.

13. Write short notes on different frequency bands used for communication.

*Or*

14. How is Pulse modulation different from frequency modulation ?

15. With a block diagram, explain the working of a digital multimeter.

*Or*

16. With a block diagram, explain the operation of a PAL TV receiver.

17. What are the characteristics of a typical instruction set for a processor.

*Or*

18. Write notes on different types of secondary devices.

19. Write short notes on different computer networking topologies.

*Or*

20. Write notes on :

- (a) OOP.
- (b) Application software.
- (c) Assembly language.



(5 × 12 = 60 marks)