G 1284 (Pages : 2) 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 Ω and a load resistance of 40 kΩ 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)