



Reg. No. :

Name :

**Combined First and Second Semester B.Tech. Degree
Examination, May 2014
(2008 Scheme)**

08-109 : BASIC COMMUNICATION AND INFORMATION ENGINEERING

Time : 3 Hours

Max. Marks : 100

PART – A

Answer **all** questions. **Each** question carries **4** marks.

1. Compare BJT and FET.
2. Discuss the basic principle of an oscillator and classify them.
3. Discuss the importance of operating point in transistor amplifiers.
4. Explain the working of MOSFET.
5. Explain the principle and block diagram of digital multimeter.
6. Find out the bandwidths for AM and FM wave forms.
7. Explain the basic principle of plasma display.
8. Explain the concept of geostationary satellite.
9. Explain the basic principle of router and bridge.
10. Explain the concept of cache memory.

PART – B

Answer **any two** questions from **each** Module. **Each** question carries **10** marks.

Module – I

11. Draw the CE characteristics of an NPN transistor and explain its working.
12. What is Flip Flop ? Explain the operation of a J-K Flip Flop with circuit and truth table. Also explain the applications of Flip Flops.
13. Draw the circuit diagram of a transformer coupled power amplifier and explain the need for impedance matching.

P.T.O.

**Module – II**

14. Discuss the principle of function generator with diagram.
15. Explain the working of a PAL colour television transmitter with block diagram.
16. a) Explain the basic principle of AM and FM demodulation.
b) Briefly explain the advantages of satellite communication.

Module – III

17. List the features of 8085 microprocessor. Draw the functional block diagram of 8085 and explain the functions of each block.
 18. What is the concept of frequency reuse and explain the principle and block diagram of GSM ?
 19. Explain the advantage of Digital communication over analog systems. Explain the working of PCM using block diagram.
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