Combined First and Second Semester B.Tech.
Degree Examination, March 2018
(2008 Scheme)
08-109: BASIC COMMUNICATION AND INFORMATION ENGINEERING
(CMNPHEFETARUFBS)

Time: 3 Hours
Max. Marks: 100

PART – A

Answer all questions. Each question carries 4 marks.

1. List the advantages of FET over BJT.
2. What is the need of a push pull amplifier?
3. What are the advantages of digital ICs over analog ICs?
4. Explain the process epitaxy in IC fabrication.
5. Draw the block diagram of digital storage oscilloscope.
6. What is meant by high definition TV?
7. Discuss the applications of satellite communication system.
8. Explain the hierarchy of computer memory.
10. Write the difference between switch and hub.

PART – B

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

Module – I

11. a) Draw the complete circuit of an RC coupled amplifier. Write the functions of each component.
   b) Plot the frequency response characteristics of RC coupled amplifier.
12. a) Describe various logic gates with the help of logic symbols and truth table.
   b) Explain summing amplifier using OP-Amps.

13. Draw the structure, Drain characteristics and transfer characteristics of enhancement mode MESFET. Explain.

**Module – II**

14. a) Explain the amplitude modulation, clearly showing the waveforms.
    b) What is the functions of local oscillator in receiver?

15. a) Write a note on scanning.
    b) Explain the TV transmitter, with the help of block diagram.

16. Explain satellite communication system, showing block diagram of earth station transmitter and receiver.

**Module – III**

17. a) Explain the functions of operating system.
    b) Discuss the Pulse Code Modulation (PCM).

18. a) Explain the cellular communication technology.
    b) What is meant by frequency re-use?

19. a) Explain WWW.
    b) Write note on network security.
    c) What are the functions of network interface units?