(Pages : 2) **5928**

Reg. No. : .....

Name : .....

Seventh Semester B.Tech. Degree Examination, November 2013
(2008 Scheme)
08-704 (Elective – III) (a) : ELECTRONIC COMMUNICATION (E)

Time : 3 Hours Max. Marks : 100

PART – A

Answer **all** questions.

1. Define Modulation index in FM and AM.
2. Draw the block diagram and explain briefly the filter method for SSB generation.
3. State the functions fulfilled by IF amplifier in a super heterodyne receiver.
4. What do you meant by quantization ?
5. Differentiate between progressive scanning and interlaced scanning.
6. What are television standards ? Why it is preferred ?
7. Describe synchronization with respect to television. Also explain how is it achieved ?
8. Discuss the principle of a two way communication service.
9. What is meant by frequency reuse ?
10. What is the need of cell splitting in a cellular system ? **(10×4=40 Marks)**

P.T.O.

PART – B

Answer **one full** question from **each** Module.

Module – I

11. a) What is the need for modulation ? 4

    b) Explain vestigial side band transmission. 6

    c) Describe the working of Foster Seely discriminates. 10

12. a) Explain the theory of reactance modulates. Derive the expression to show that there is variation in output reactance based on variation of drive voltage amplitude. 12

    b) Draw simple AGC circuit and explain its function. 8

Module – II

13. a) Draw a block diagram of a monochrome TV receiver and explain the function of each block. 14

    b) Write short notes on natural sampling and flat topped sampling process in digital communication. 6

14. a) With a sketch explain the working of a picture tube. 10

    b) Write short notes on.

    1) HDTV

    2) Raster scanning. 10

Module – III

15. a) Explain the call processing procedure in a cellular system. 10

    b) Describe the differences between a macro cell and micro cell. 10

16. a) Explain with the help of a block diagram a simple cellular telephone system. 12

    b) What are the services provided by GSM ? 8
