

Code: 9A12302

B.Tech III Year I Semester (R09) Supplementary Examinations December 2015

DATA COMMUNICATION SYSTEMS

(Information Technology)

Time: 3 hours

Max Marks: 70

Answer any FIVE questions

All questions carry equal marks

- 1 Describe the differences between:
 - (a) Analog and digital communication systems.
 - (b) Digital modulation and digital transmission.
- 2 (a) Describe the block diagram of optical fiber communications system.
(b) Write the disadvantages of optical fiber cables.
- 3 (a) Explain various analog companding techniques.
(b) What is PCM line speed? Explain it.
- 4 Write short notes on:
 - (a) Microwave radio link.
 - (b) Microwave radio repeaters.
- 5 (a) Explain the operation of a telephone set with the help of functional block diagram.
(b) What are the common units for signal and noise power measurements in the telephone industry?
- 6 (a) Explain the term handoff. What is the difference between a soft and a hard handoff?
(b) Explain co-channel interference and adjacent-channel interference.
- 7 Write short notes on:
 - (a) POSTNET.
 - (b) Universal product code.
- 8 Write short notes on:
 - (a) Voice-band modem specification.
 - (b) Synchronous data link protocols.
