

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2003.

Fourth Semester

Information Technology

IF 252 — TELECOMMUNICATION SYSTEMS

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — ($10 \times 2 = 20$ marks)

1. What is modulation index?
2. What is fading?
3. What is a Telepoint System?
4. What is Half Duplex?
5. What is a Geo Synchronous satellite?
6. What are Azimuth and Elevation angles?
7. What is a Graded Index Fibre?
8. What is WDM?
9. What is a DTMF System?
10. What is GSM and TDMA?

PART B — ($5 \times 16 = 80$ marks)

11. (i) Define Sensitivity and Selectivity of a receiver. (4)
(ii) What is Image Frequency? Explain. (6)
(iii) Draw the block diagrams of FDM Transmitter and Receiving End. (6)

12. (a) (i) Explain the operation of a cordless telephone. (6)
(ii) Explain in detail the operation of an advanced Mobile Phone System. (10)

Or

- (b) (i) Draw the block diagram of an Analog Cell Phone. (6)
(ii) Explain in detail the operation of a Cellular Radio System. (10)
13. (a) Write a detailed note about Satellite Orbits and Geo-Synchronous Satellites.

Or

- (b) Explain in detail an Earth Station, with a neat block diagram.
14. (a) Explain in detail the various types of fiber optic cables, its construction and its characteristics.

Or

- (b) Explain in detail the optical transmitters and receivers used in Fiber Optical Communication.
15. (a) Explain the operation of a Facsimile System in detail.

Or

- (b) Explain in detail an ISDN System.
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