

C 15232

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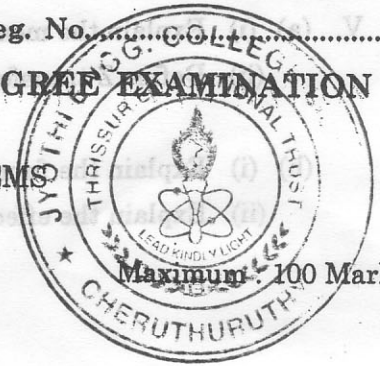
Reg. No.....

**FOURTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION
DECEMBER 2010**

IT 04 406—COMMUNICATION SYSTEMS

(2004 admissions)

Time : Three Hours



Answer all questions.

Part A

- I. (a) Define noise figure and explain.
- (b) Explain the generation of ASK signal.
- (c) Explain what is meant by geostationary orbit.
- (d) What is meant by line of sight microwave link ? Explain.
- (e) Explain various types of losses in optical fibers.
- (f) Explain the requirements of detectors used for optical fibers.
- (g) Differentiate time division multiple access and time division multiplexing.
- (h) What is high definition TV ? Explain.

(8 × 5 = 40 marks)

Part B

- II. (a) (i) Explain delta modulation system in detail with suitable diagram. (9 marks)
- (ii) What is slope overload and granular noise in DM system ? Explain. (6 marks)
- Or*
- (b) (i) Draw the block diagram of binary FSK receiver and explain. (8 marks)
- (ii) Explain the generation of PWM signal. (7 marks)
- III. (a) Draw the block diagram of regenerative repeater and explain.
- Or*
- (b) (i) Explain what is meant by station keeping ? (6 marks)
- (ii) Explain launching of satellite. (9 marks)
- IV. (a) (i) Explain with the help of ray theory explain the principle of light transmission in a fiber. (7 marks)
- (ii) Explain various types of dispersion takes place in fibres. (8 marks)
- Or*
- (b) (i) Explain analog optical fiber link. (8 marks)
- (ii) Explain the use of LED for fiber optics. (7 marks)

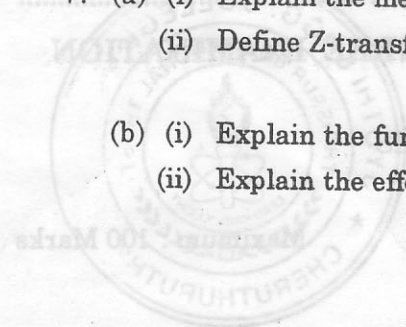
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- V. (a) (i) Explain the measurement of sensitivity of a receiver. (7 marks)
- (ii) Define Z-transform and state and explain the properties of Z-transform. (8 marks)

Or

- (b) (i) Explain the function of a preamble in a TDMA burst. (8 marks)
- (ii) Explain the effects of rain and ionospheric effects. (7 marks)

[4 × 15 = 60 marks]



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Part B

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- (ii) What is slope overload and granular noise in DM system? Explain. (8 marks)
- Or
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