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**Question Paper Code : 51460**

**B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2016**

**Fifth Semester**

**Electronics and Instrumentation Engineering**

**EC 2315 / EI 55 / 10133 EE 501 – COMMUNICATION ENGINEERING**

**(Regulations 2008/2010)**

**(Common to PTEC 2315 – Communication Engineering for B.E. (Part-Time) Fourth Semester – Electronics and Instrumentation Engineering – Regulations 2009)**

**Time : Three Hours**

**Maximum : 100 Marks**

**Answer ALL questions.**

**PART – A (10 × 2 = 20 Marks)**

1. Define velocity factor for a transmission line.
2. State Snell's law for refraction.
3. Compare Analog and Digital Amplitude modulation techniques.
4. What is the purpose of limiter in an FM receiver ?
5. State Shannon's law for information capacity.
6. Give the expression for modulation index in FSK.
7. What are the different types topologies encountered in LAN ?
8. Define spurious tones.
9. State Kepler's third law.
10. Define angle of inclination.

**PART – B (5 × 16 = 80 Marks)**

11. (a) Explain the radiowave propagation. (16)

**OR**

- (b) (i) Briefly explain the various types of transmission lines. (8)  
(ii) Explain in detail about the different types of losses that occur in transmission lines. (8)
12. (a) What is TDM ? Explain with waveform. What are the advantages and limitations of TDM ? (16)

**OR**

- (b) With the help of neat diagram explain the FM receiver. (16)
13. (a) Explain the quantization noise in PCM system. How it can be reduced ? (16)

**OR**

- (b) Write notes on : (16)  
(i) Digital radio system.  
(ii) Bandwidth considerations of FSK.

14. (a) Explain the architecture and functions of ISDN. (16)

**OR**

- (b) Explain the architecture of OSI reference model with the neat diagram. (16)
15. (a) What is geosynchronous satellite ? Explain the advantages and limitations of geosynchronous satellite. (16)

**OR**

- (b) Explain the propagation of light through optical fiber. (16)