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**EC - 501**

**B.E. V Semester**

Examination, December 2015

**Voice and Data Communication**

*Time : Three Hours*

*Maximum Marks : 70*

- Note:* i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.
- ii) All parts of each questions are to be attempted at one place.
- iii) All questions carry equal marks, out of which part A and B (Max.50 words) carry 2 marks, part C (Max.100 words) carry 3 marks, part D (Max.400 words) carry 7 marks.
- iv) Except numericals, Derivation, Design and Drawing etc.

1. a) What is subscriber loop?
- b) Define the channel noise.
- c) List different call progress tones with their frequency and ON/OFF duration.
- d) List and explain the different transmission parameters.

OR

What do you understand by cross talk, Explain atleast two types of them.

2. a) What is local loop?
- b) Explain trunk circuit in short.
- c) What are the functions of a telephone set?

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- d) What do you mean by common channel signaling system? Explain in detail.

OR

Explain the working of automatic exchanges with block diagram.

3. a) What is base band signal?
- b) Explain bit and word interleaving.
- c) Differentiate between TDM and FDM.
- d) Explain the wavelength division multiplexing in detail.

OR

Write short notes on codecs and combo chips.

4. a) What is Modem?
- b) What is digital to digital encoding?
- c) Explain DTE-DCE interface.
- d) What do you mean by transmission media? Discuss guided and unguided media.

OR

Discuss the topology and explain its types with suitable diagram.

5. a) What is hamming distance?
- b) Discuss about cyclic code.
- c) Explain briefly about redundancy check.
- d) Explain space-time division circuit switching.

OR

What do you mean by virtual circuit and datagram packet switching?

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