

**DIPLOMA - VIEP - ELECTRONICS AND  
COMMUNICATION ENGINEERING (DECVI)**

**Term-End Examination**

**June, 2015**

00566

**BIEL-033 : BASIC TELEMATICS**

*Time : 2 hours*

*Maximum Marks : 70*

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*Note : Attempt five questions in all. Question no. 1 is compulsory. All questions carry equal marks.*

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1. State *True* or *False* for the following questions :

$7 \times 2 = 14$

- (a) PCM means Pulse Coded Modulation.
- (b) EPABX stands for Electronic Public Automatic Business Exchange.
- (c) The links that run between the switching systems are called trunks.
- (d) The microphone and the earphone are the transducer elements of the telephone communication system.
- (e) The two wires connecting the telephone to the exchange are known as ring and tip.

- (f) If the coded values are transferred during the same time interval from input to output, the technique is known as space switching.
- (g) When PAM samples are switched in a time division manner, the switching is known as analog time division switching.
2. (a) Explain Telephone Receiver with the help of its block diagram. 7
- (b) Explain TDM-PCM switches. 7
3. Explain any *four* of the following :  $4 \times 3 \frac{1}{2} = 14$
- (a) MDF
- (b) Distributed SPC
- (c) Folded Network
- (d) Modem
- (e) Toll Call Services
- (f) DP
4. (a) Compare centralized SPC and distributed SPC. 7
- (b) What are the enhanced services in telephone network ? Explain briefly. 7

5. (a) Explain the various applications of telecommunication. 7
- (b) Write down the basic principle of FAX. Also explain the ISDN address structure in telephone network. 7
6. (a) Explain the architecture of ISDN with the help of its block diagram. 7
- (b) Draw the message format for ISDN and explain its parts briefly. 7
7. (a) Explain the various types of tones in the telephone networks (DTMF). 7
- (b) Write down a short note on 'Voice over IP Phone'. 7
8. (a) Explain Analog CMOS cross-point switch. 7
- (b) Describe EPABX with the help of its block diagram. 7
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