

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

Term-End Examination

June, 2016

00056

BIEL-033 : BASIC TELEMATICS

Time : 2 hours

Maximum Marks : 70

Note : Attempt any five questions. Question no. 1 is compulsory.

1. Choose the correct answer.

$7 \times 2 = 14$

(a) DTMF is

- (i) Dual Tone Multi Frequency
- (ii) Double Twisting Multi Frequency
- (iii) Dual Tone Maximum Frequency
- (iv) Dual Tone Minimum Frequency

(b) ISDN handles data pertaining to

- (i) All digital services
- (ii) Speech and video
- (iii) Computer data only
- (iv) Speech only

- (c) Common channel signalling in SS7 is
- (i) Out band control channel
 - (ii) In band control channel
 - (iii) Speech control channel
 - (iv) None of the above
- (d) The bandwidth requirement of a telephone channel is
- (i) 3 kHz
 - (ii) 15 kHz
 - (iii) 5 kHz
 - (iv) 25 kHz
- (e) SPC is used for
- (i) Carrying Exchange control functions
 - (ii) Carrying Subscriber control functions
 - (iii) Exchange Hardware
 - (iv) Signalling purpose
- (f) In a time division space switch, the size of the control memory is N and its width is
- (i) $\log_{10} M$
 - (ii) $2 \log_2 M$
 - (iii) $\log_N M$
 - (iv) $\log_2 M$

- (g) What is the function of a modem ?
- (i) Encoding
 - (ii) Decoding
 - (iii) Modulation
 - (iv) Modulation and Demodulation
2. (a) Describe the operation of a cordless telephone. 7
- (b) List the maintenance steps for EPABX. 7
3. (a) Explain data compression in FAX. 7
- (b) Describe briefly the ISDN architecture. 7
4. (a) Compare internal and external modems. 7
- (b) List the applications of ATM. 7
5. (a) List the advantages of IP phones over Voice phones. 7
- (b) List different frequency allocations for telephony. 7
6. (a) Explain the different types of switching systems. 7
- (b) Discuss briefly 'Video Conferencing'. 7

7. Write short notes on any **four** of the following : $4 \times 3 \frac{1}{2} = 14$

- (a) PCM Switch
 - (b) BRZ Line
 - (c) Digital Data Service
 - (d) Modem
 - (e) Distributed SPC
 - (f) Telephone Receiver
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