

**DIPLOMA VIEP ELECTRONICS AND
COMMUNICATION ENGINEERING (DECE)**

Term-End Examination

June, 2013

BIEL-033 : Basics Telematics

Time : 2 hours

Maximum Marks : 70

Note : Attempt any five questions in all. Questions No. 1 is compulsory. All questions carry equal marks.

1. Choose correct answer. 7x2=14

(a) A standard telephones receive their power from :

- (i) An internal ac power supply
- (ii) A battery
- (iii) 48Vdc supplied by the telephone company
- (iv) 90V ac supplied by the telephone company.

(b) The ringing voltage supplied by the telephone company is :

- (i) A 20 H_Z sine wave
- (ii) A 60 H_Z sine wave
- (iii) 48Vdc
- (iv) A sine wave of any audio frequency

- (c) The most commonly used light sensor in a modern fax machine is a :
- (i) Phototube
 - (ii) Phototransistor
 - (iii) Liquid Crystal Display
 - (iv) Charge Coupled Device
- (d) ISDN uses :
- (i) Frequency - Division multiplexing
 - (ii) Time - Division Multiplexing
 - (iii) Code - Division Multiplexing
 - (iv) None of these
- (e) The most common application of ISDN is :
- (i) High speed Internet Access
 - (ii) Local Area Networks
 - (iii) Local loop
 - (iv) Long distance telephone service
- (f) A special transformer used to convert signals from four wires from the transmitter and receiver into a signal suitable for a single two-line pair to the local loop is known as :
- (i) Ringer
 - (ii) Hybrid
 - (iii) Induction coil
 - (iv) Both (ii) and (iii)

- (g) The most modern telephones use a dialling system known as :
- (i) Pushbutton
 - (ii) DTMF
 - (iii) Touch Tone
 - (iv) Cordless
2. Explain the block diagram of a cord - less telephone system. 14
3. (a) Discuss the classification of switching system. 7
(b) What do you mean by telecommunication network ? 7
4. (a) Differentiate between analog and digital Telecommunication services. 7
(b) Compare centralized and distributed SPC (Stored Programme Control). 7
5. (a) Explain the architecture of ISDN. 7
(b) Discuss various types of Modem. 7
6. (a) Differentiate between (PRI) Primary Rate Access Interface and (BRI) Basic Rate Access Interface. 7
(b) What is a wireless telephone ? How it works ? 7

7. (a) Explain the installation procedure of EPABX. 7
- (b) What do you mean by voice over IP phone ? How it operates ? 7
8. Write short note on (*any four*). $4 \times 3\frac{1}{2} = 14$
- (a) Videoconferencing
- (b) Telemedicine
- (c) ATM
- (d) Data compression
- (e) Internet
- (f) Numbering plan
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