BIEL-033

DIPLOMA IN ELECTRONICS AND COMMUNICATION ENGINEERING (DECE)

Term-End Examination
December, 2012

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 the correct answer :   7x2=14

   (a)   A telephone is :
      (i)   Full duplex
      (ii)   Half duplex
      (iii)   Simplex
      (iv)   Multiplex

   (b)   What type of modulation is used by a standard analog cordless telephone ?
      (i)   AM
      (ii)   FM
      (iii)   PSK
      (iv)   QAM

   (c)   The most widely used FAX standard is :
      (i)   Group 1
      (ii)   Group 2
      (iii)   Group 3
      (iv)   Group 4

(d) The primary application of ISDN is :

    (i)   Local Area Networks

    (ii)   Long-distance telephone service

    (iii) Local loop

    (iv) Internet access

(e) Telephone traffic is measured in terms of :

    (i)   Hz

    (ii)   Band

    (iii) Erlangs

    (iv) Numbers

(f) What is full form of DTMF ?

    (i)   Dual Tone Multi Frequency

    (ii)   Double Tone Modulation Frequency

    (iii) Dual Tone Modulation Factor

    (iv) Double Tone Multi Factor

(g) ISDN uses which types of cable ?

    (i)   Coaxial

    (ii)   Fiber optic

    (iii) Twisted pair

    (iv) Parallel wire

2. (a) Briefly explain the operation of electronic Telephone. **7**

   (b) Discuss various types of tones used in Telephone exchange. **7**

3. (a) Compare various types of switching systems. **7**

   (b) Define the following terms MDF, MF, FP, BF, DP, DC, DW. **7**

4. (a) List various Business applications of telecommunication. **7**

   (b) What do you mean by DSS and DSL ? Also give their applications. **7**

5. (a) What is FAX and how it works ? **7**

   (b) Describe the working principle of a Modem with the help of a block diagram. **7**

6. (a) Describe briefly ISDN installation. **7**

   (b) What do you mean by Image Processing and also list various applications of it ? **7**

7. Explain in detail the programming on console, on terminal and on computer. **14**

8. Write short note on **(Any four)** : 4x3½=14

   (a) PCM Switch

   (b) Digital TDM .

   (c) Shopping Telecomputing

   (d) Data Compression

   (e)   Internet

   (f) EPABX

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