| CIT-001 |

CERTIFICATE IN INFORMATION TECHNOLOGY (CIT)

00483 **Term-End Examination**

June, 2015

CIT-001 : FUNDAMENTALS OF COMPUTER SYSTEMS

Time : 2 hours   *Maximum Marks : 50*

(Weightage 75%)

Note : *Question no. 1 is* **compulsory.** *Attempt any* **four** *questions from the remaining.*

1. Answer the following objective type questions. Each objective type question carries *one* mark.   *10×1=10*

    (a) The _____ is a cable which carries signals representing data from one place to another.

         (i)   Register

         (ii) Bus

         (iii) Multiplexer

         (iv) Interface

(b) _____ memory is used to increase the speed of processing by making current programs and data available to the CPU at a rapid rate.

(i) RAM

(ii) ROM

(iii) Cache

(iv) Magnetic tape

(c) A group of 8-bits is known as

(i) word

(ii) byte

(iii) nibble

(iv) kilobyte

(d) The information which is permanently stored in a ROM chip is called as

(i) hardware

(ii) software

(iii) firmware

(iv) application software

(e) Operating System (O/S) is a

(i) system software

(ii) application software

(iii) utility

(iv) accessory

(f) The processing system in which the jobs are bundled together along with the instructions necessary to allow them to be processed without intervention is called as _____ processing system.

(i) batch

(ii) serial

(iii) spooling batch

(iv) multiprogramming

(g) Medical devices, industrial control systems and flight controlling systems use

(i) Time sharing O/S

(ii) Network O/S

(iii) Batch O/S

(iv) Real time O/S

(h) The process of converting binary signal to analog signal by a modem is called as

(i) Modulation

(ii) Demodulation

(iii) Transmission

(iv) Compression

(i) We prefer computer networking for the reason(s)

(i) Resources sharing

(ii) Scalability

(iii) High reliability and expenditure saving

(iv) All of the above

(j) The aim(s) of information security is /are

    (i) Integrity

    (ii) Confidentiality

    (iii) Availability

    (iv) All of the above

2. List and describe briefly the types of threats which can breach the network security of an organisation. *10*

3. Compare the following storage devices w.r.t. the parameters like capacity, advantages, disadvantages and storage mechanism : *10*

    (i) Hard disk

    (ii) CD-ROM

    (iii) Magnetic tape

    (iv) Pen drive/Flash drive

4. (a) List and describe the classification of printers on the basis of quality. *5*

    (b) Explain the following types of operating systems briefly. Also give two applications which use these O/S. *5*

        (i) Batch O/S

        (ii) Network O/S

5. Write an algorithm and draw the corresponding flow chart to find the average of a list of "n" numbers given as input. *10*

6. (a) Write a program in C language to check whether a given number is odd or even. *5*

(b) Describe the mechanism of Asymmetric key encryption system. *5*

7. (a) Discuss bus topology with the help of a neat diagram and list its advantages and disadvantages. *5*

(b) List and describe any five network applications. *5*