CERTIFICATE IN INFORMATION TECHNOLOGY (CIT)
Term-End Examination
June, 2025

CIT-001 : FUNDAMENTALS OF COMPUTER SYSTEMS

Time : 2 Hours　　　　*Maximum Marks : 50*

Weightage : 75%

Note : *All questions of Section A are compulsory. Answer any **three** questions from Section B.*

Section–A

1. Answer the following multiple choice questions. Only one answer is correct :

　　　　　　　　　　　　　1×10=10

　　(a)　Which of the following is a non-volatile memory ?

　　　　(i)　Cache Memory

(ii)   Secondary Memory

(iii) Register

(iv) Main Memory

(b)   Which of the following is a pointing device ?

(i)   Mouse

(ii)   Printer

(iii) Monitor

(iv) Keyboard

(c)   The total access time for a disk is equal to ....

(i)   Seek time – Latency time

(ii)   Seek time + Latency time

(iii) Seek time × Latency time

(iv) Seek time / Latency time

(d)   GUI stands for :

(i)   General User Interaction

(ii)   Graphical User Interaction

(iii) Graphical User Interface

(iv) General User Interface

(e) One MB is equal to :

  (i) 2^{10} bytes

  (ii) 2^{16} bytes

  (iii) 2^2 bytes

  (iv) 2^{20} bytes

(f) Which of the following is not a system software ?

  (i)   Operating system

  (ii) MS-Word

  (iii) Compiler

  (iv) None of the above

(g) Which of the following is not a keyword of C programming language ?

  (i)   array

  (ii) for

  (iii) double

  (iv) switch

(h) Walkie-talkie is an example of ………

    (i)   Simplex communication

    (ii)   Half-duplex communication

    (iii) Full-duplex communication

    (iv) None of the above

(i) Which of the following types of signals are used for short-range communication ?

    (i)   Radiowave

    (ii)   Infrared

    (iii) Microware

    (iv) Dark wave

(j) Compromising confidential information comes under ……

    (i)   Bug

    (ii)   Threat

    (iii) Virus

    (iv) Attack

2. (a) What is an algorithm ? Write an algorithm to find area of a circle.   5

   (b) What is parallel transmission ? How is it different from serial transmission ? 5

Section–B

Note : Answer any *three* from the following.

3. (a) What is computer system ? Explain basic computer organization with the help of a block diagram. 5

 (b) What is an operating system ? Briefly explain any *two* functions of operating system. 5

4. (a) What is Main Memory ? Briefly explain the types of main memory. 5

 (b) What is Network Topology ? Explain Ring Topology with the help of a diagram. 5

5. (a) What is OSI model ? Briefly discuss different layers of OSI model. 8

 (b) What is the use of MODEM ? 2

6. (a) What is the need of network security ? List various elements of network security. 5

 (b) What is a database ? Briefly explain database development life cycle. 5

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