

**CERTIFICATE IN INFORMATION
TECHNOLOGY (CIT)**

Term-End Examination

December, 2025

**CIT-001 : FUNDAMENTALS OF COMPUTER
SYSTEMS**

Time : 2 Hours

Maximum Marks : 50

Weightage : 75%

Note : *Section A is compulsory. Answer any three questions from Section B. Section A carries 20 marks. Section B carries 30 marks.*

Section-A

1. Answer the following multiple choice questions. Only one of the answers is correct : $10 \times 1 = 10$

(a) relationship is a relationship among the instances of two entity types.

(i) Single

- (ii) Binary
 - (iii) Ternary
 - (iv) n -ary
- (b) EEPROM can be erased by exposure to
- (i) Sunlight
 - (ii) Ultraviolet radiation
 - (iii) Magnetic field
 - (iv) Electric charge
- (c) programs take control of your computer and use internet connection to attack other computers or networks.
- (i) Spyware
 - (ii) Phishing
 - (iii) Zombie
 - (iv) Trojan

- (d) Size of computer screen is measured in inches.
- (i) horizontal
 - (ii) vertical
 - (iii) diagonal
 - (iv) half horizontal
- (e) Assemblers convert code to machine language.
- (i) High level language
 - (ii) Assembly language
 - (iii) Binary language
 - (iv) C++
- (f) is not a relational DBMS.
- (i) Oracle
 - (ii) SQL-Server
 - (iii) MS-Access
 - (iv) MS-Excel
- (g) constraint checks that attributes of an entity should exist as a primary key in some other table.
- (i) Primary key

- (ii) Entity integrity
 - (iii) Foreign key
 - (iv) Semantic key
- (h) is an example of logical operator.
- (i) ++
 - (ii) >=
 - (iii) &&
 - (iv) %
- (i) is not an element of every communication system.
- (i) Modem
 - (ii) Transmitter
 - (iii) Channel
 - (iv) Receiver
- (j) topology has a central hub for communication with many client computers.
- (i) Ring
 - (ii) Bus
 - (iii) Star
 - (iv) Tree

2. (a) Discuss the essential components of LAN with *two* advantages and *two* disadvantages. 5
- (b) Discuss the different types of security threats the computer system face now-a-days. 5

Section-B

3. (a) Discuss the various categories of memory available in a computer system. 5
- (b) Find the difference between the compiler and interpreter. 5
4. (a) List the advantages and disadvantages of database systems. 5
- (b) What is an attribute ? Further, discuss key attribute, derived attribute and multivalued attribute. 5
5. (a) Draw a flowchart for converting to find the largest of three numbers. 5

- (b) Write a C program to find the largest of three numbers. 5
6. (a) Discuss the different layers in OSI model. 5
- (b) What are the different types of social engineering ? Explain. 5

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