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**CERTIFICATE IN INFORMATION
TECHNOLOGY (CIT)**

Term-End Examination

June, 2024

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

Time : 2 Hours

Maximum Marks : 100

Note : Question no. **1 and 2** are compulsory.

Attempt any **three** questions from the rest.

1. There are ten True/False type questions below :

(Write correct answer in your answer sheet)

10×1=10

- (a) EPROM can be erased by exposing the chip to strong ultra-violet light.
- (b) The ALU initiates action to execute the instruction.

- (c) A processor can perform all operations in a single clock tick.
 - (d) Computers can have should be almost ? one clock.
 - (e) Twisted pair cables are free from noise and other electrical interference.
 - (f) Bus topology requires less cable length than star topology.
 - (g) The internet and world wide web are not same.
 - (h) Void is a data type in C.
 - (i) Stdio.h is used to stone the source code of C program.
 - (j) The do-while loop is a post test loop.
2. (a) Draw the flow chart and then write a program in C language to find the greatest of the three numbers entered by the user. 6
- (b) Briefly discuss the following with example of each : 4

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- (i) Malwares
 - (ii) Firmwares
3. (a) Explain the storage organization in a Hard Disk drive with the help of suitable illustrative diagram. 6
- (b) Compare Symmetric and Asymmetric key cryptography. Describe the mechanism of Asymmetric key encryption system. 4
4. (a) Write short notes on following : 6
- (i) Access time
 - (ii) Seek time
 - (iii) Rotational latency time
- (b) Compare printers and plotters. Classify the printers on the basis of their print quality. 4
5. (a) Discuss simplex, half duplex and full duplex modes of data transmission. 6
- (b) What is a database ? How database differs from file systems ? List various type of database. 4

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6. (a) What do you understand by the term 'VPN' in computer networks ? Briefly discuss the utility of VPN. 5
- (b) Discuss the Bus topology with the help of diagram, and list its advantages and disadvantages. 5
