

**CERTIFICATE IN INFORMATION
TECHNOLOGY (CIT)**

Term-End Examination

December, 2016

00995

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

Time : 2 hours

Maximum Marks : 50

(Weightage : 75%)

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

SECTION A

1. Answer the following multiple choice questions. Only one of the answers is correct.

$10 \times 1 = 10$

- (a) What is the full form of ALU ?
- (i) Automatic Logic Unit
 - (ii) Arithmetic Logic Unit
 - (iii) Automatic Linking Unit
 - (iv) Arithmetic Linking Unit
- (b) Which of the following auxiliary storage devices is called the fixed disk drive ?
- (i) Floppy Disk Drive
 - (ii) CD-ROM Drive
 - (iii) Hard Disk Drive
 - (iv) DVD-ROM Drive

- (c) Which of the following is **not** a function of an Operating System ?
- (i) Memory Management
 - (ii) Resource Management
 - (iii) Power Management
 - (iv) Disk Management
- (d) Which of the following is **not** a translator program/software ?
- (i) Compiler
 - (ii) Interpreter
 - (iii) Assembler
 - (iv) Application software
- (e) Which of the following is **not** a property of an algorithm ?
- (i) Definiteness
 - (ii) Secure
 - (iii) Finiteness
 - (iv) Input
- (f) Identify the reserve word of 'C' among the following :
- (i) Input
 - (ii) Output
 - (iii) Return
 - (iv) Halt

- (g) Which one of the following is a valid identifier in 'C' ?
- (i) 1.name
 - (ii) myFirstProgram
 - (iii) name1*2
 - (iv) my First Program
- (h) Full duplex data transmission means
- (i) Nobody transmits, no one receives
 - (ii) Sender transmits, receiver receives at a time
 - (iii) Both sender and receiver can transmit and receive at a time
 - (iv) None of the above
- (i) Which one of the following is *not* a network topology ?
- (i) Ring
 - (ii) Star
 - (iii) Hierarchical
 - (iv) Mesh
- (j) What is a VPN ?
- (i) Virtual Private Network
 - (ii) Visible Private Network
 - (iii) Virtual Participative Network
 - (iv) Visible Participating Network

2. Draw the flow chart and then write a program in 'C' to print the sum of first ten natural numbers. 10

SECTION B

3. (a) Explain the storage organization in a Hard Disk Drive with the help of suitable illustrative diagrams. 7
- (b) Explain the following : $3 \times 1 = 3$
- (i) Access time
 - (ii) Seek time
 - (iii) Rotational Latency time
4. (a) Discuss various types of operating systems. 6
- (b) Explain in brief various types of databases. 4
5. (a) Write down the advantages and limitations of flow charts. 3
- (b) Explain the 'switch-case' statement of 'C' with the help of an example. 3
- (c) Discuss simplex, half duplex and full duplex modes of data transmission. 4
6. (a) What are LAN, MAN and WAN ? Explain their characteristics. 6
- (b) Discuss the three categories of Viruses found in digital computers. 4
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