

02019

**CERTIFICATE IN INFORMATION
TECHNOLOGY (CIT)**

Term-End Examination

June, 2013

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

Time : 2 hours

Maximum Marks : 50


(Weightage : 75%)

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

SECTION-A

1. Answer the following multiple choice questions:

1x10=10

- (a)  - flow charting symbol indicates
- (i) Start a end of the program
 - (ii) Input or Output operation
 - (iii) Decision making and branching symbol
 - (iv) Magnetic tape
- (b) Double data type in C-language usually takes
- (i) 1 byte
 - (ii) 2 bytes
 - (iii) 4 bytes
 - (iv) 8 bytes

- (c) Which one of the following is LAN topology ?
- (i) Bus
 - (ii) ATM
 - (iii) Frame Relay
 - (iv) DQDB
- (d) In which layer the best route for packet forwarding is calculated ?
- (i) Physical layer
 - (ii) Data-link layer
 - (iii) Network layer
 - (iv) Transport layer
- (e) Which is not considered for choosing a topology ?
- (i) Length of a cable
 - (ii) Protocol
 - (iii) Cable types
 - (iv) Scalability
- (f) Which one among the following is network security tool ?
- (i) Antivirus software packages
 - (ii) VPN
 - (iii) Identity Services
 - (iv) All of the above
- (g) Which method is used to present your system from virus attack ?
- (i) The use of pirated S/W
 - (ii) Proper backup of all data and program files
 - (iii) Restrict the use of outside pendrive
 - (iv) All of the above

(h) Which of the following is volatile memory ?

(i) EEPROM

(ii) PROM

(iii) ROM

(iv) RAM

(i) One Gigabyte is equivalent to :

(i) 2^{20}

(ii) 2^{30}

(iii) 2^{40}

(iv) 2^{50}

(j) To address 1024 memory locations, the size of address lines is :

(i) 8 bits (ii) 10 bits

(iii) 12 bits (iv) 14 bits

2. Write the following program in C-language :

(a) Input a number and test whether it is even 6
and print a message that "the number is
even".

(b) Differentiate between .COM and .EXE file. 4

SECTION-B

3. (a) Explain the operation of CU, ALU through execution of the following statement. 5
 $A=B+C*D$
Draw the appropriate diagram also.
- (b) Write a program in C using an array to find the smallest number from a list of 15 numbers. 5
4. (a) What is a flat file ? What are its advantages and drawbacks ? Explain through an example. 5
- (b) What is wireless transmission ? Briefly describe how wireless transmission is done through radio waves and microwaves. 5
5. (a) What are the major benefits of TCP/IP model ? List some important protocols of TCP/IP model and explain its functionalities. 5
- (b) Draw a secure network diagram and explain its components. 5
6. (a) What are the three categories of viruses ? Explain them in brief. 6
- (b) Draw a flow-chart for adding a sum of series $1^2+2^2+\dots\dots\dots+15^2$. 4
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