Code : 061101

B.Tech 1st Semester Exam., 2015

FUNDAMENTAL OF INFORMATION TECHNOLOGY

Time : 3 hours   Full Marks : 70

Instructions :

(i) The marks are indicated in the right-hand margin.

(ii) There are **NINE** questions in this paper.

(iii) Attempt **FIVE** questions in all.

(iv) Question No. **1** is compulsory.

1. Answer the following as directed (any *seven*) :

     2×7=14

(a) What are static RAM and dynamic RAM?

(b) What is a search engine?

(c) What is Internet?

(d) What is a token in C?

(e) What is an identifier?

(f) If an array is declared as

     arr [ ] = {1, 3, 5, 7, 9}

then what is the value of size of (arr [3])?

(i) 10   (ii) 20

(iii) 30   (iv) 40

(Choose the correct answer)

AK16/297   (Turn Over)

(2)

(g) A function that uses another function is known as _____. (Fill in the blank)

(h) The _____ statement is used to skip statements in a loop.

     (Fill in the blank)

(i) Tenary operator operates on how many operands?

(i) 1

(ii) 2

(iii) 3

(iv) 4

     (Choose the correct answer)

(j) What does a scanf( ) function return?

2. Write a note on operators available in C language.   14

3. (a) Write a note on data types that C language supports.   9

(b) Explain the difference between declaration and definition.   5

4. What are decision control statements? Explain in detail.   14

5. (a) With the help of an example, explain dangling if-else problem.   8

(b) Write a note on GOTO statement. Why should it be avoided?   6

AK16/297   (Continued)

(3)

6. (a) Write a function to reverse a string using recursion. 7

 (b) Differentiate between call by value and call by reference using suitable examples. 7

7. (a) Write a program to input an array of 10 numbers and swap the value of the largest and smallest numbers. 7

 (b) Explain how one-dimensional and two-dimensional arrays are initialized. What happens when an array is initialized with—

  (i) fewer initialisers as compared to its size;

  (ii) more initialisers as compared to its size? 7

8. (a) Discuss the different generations of computers. 7

 (b) What are different types of memory available in a computer? Explain each type briefly. 7

9. (a) Differentiate among programming language, pseudocode and algorithms. 7

 (b) Write a note on mobile communication. 7

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