Reg. No. :

Question Paper Code: 51107

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2016

First Semester

Civil Engineering

15UCS107 - COMPUTER PROGRAMMING

(Common to ALL branches)

(Regulation 2015)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. The first computers were programmed using

    (a) Assembly language   (b) Machine Language
    (c) Source code   (d) Object code

2. Link with another part of program or connectors in flowchart are shown in

    (a) Rhombus   (b) Parallelogram
    (c) Circle   (d) Trapezoid

3. Which of the following special symbol allowed in a variable name?

    (a) * (asterisk)   (b) | (pipeline)
    (c) - (hyphen)   (d) _ (underscore)

4. Which of the following is the correct usage of conditional operators used in C?

    (a) a>b ? c=30 : c=40;   (b) a>b ? c=30;
    (c) max = a>b ? a>c?a:c:b>c?b:c (d) return (a>b)?(a:b)

5. The continue statement cannot be used with

    (a) for   (b) switch   (c) do   (d) while

6. The following code 'for(;;)' represents an infinite loop. It can be terminated by

    (a) break   (b) exit(0)   (c) abort(0)   (d) all the above

7. In an array there is one to one correspondence between set of _____ and set of values.

    (a) Indices   (b) Memory Locations
    (c) Constants   (d) Variables

8. What are the correct syntaxes to send an array as a parameter to function?

    (a) func(array[size]);   (b) func(*array);
    (c) func(&array);   (d) func(array);

9. What is (void*) 0?

    (a) Representation of null pointer   (b) Representation of void pointer
    (c) Error   (d) None of these

10. Members of Union are accessed by

    (a) union name. member   (b) union name -> member
    (c) both (a) and (b)   (d) none of these

<div align="center">PART - B (5 x 2 = 10 Marks)</div>

11. Infer a pseudo code to generate the sum of n numbers.

12. List the type qualifiers used in C.

13. Produce any two forms of if statement with an example.

14. Identify the use of call by value with an example?

15. State the use of preprocessing.

<div align="center">PART - C (5 x 16 = 80 Marks)</div>

16. (a) (i) Paraphrase the basic organization of a computer.   (8)

       (ii) Discuss the classification of computers in detail.   (8)

<div align="center">Or</div>

  (b) (i) Review the concept of flowcharts in detail with examples.   (8)

      (ii) List in detail about the steps involved in problem solving.   (8)

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17. (a) (i) Sketch the basic structure of a C program with an example. (8)

(ii) Illustrate the compiling and linking process for a C program. (8)

Or

(b) Categorize different types of operators in C with the operator precedence chart. Give example programs. (16)

18. (a) (i) Write a program to check if a number is positive or negative using nested if else. (8)

(ii) Write a program to display the factors of a given integer. (8)

Or

(b) Write a menu driven program which has following options: (i) Factorial of a number (ii) Prime or not (iii) Odd or even (iv) Exit. (16)

19. (a) (i) What do you mean by recursion? Explain with an example. (8)

(ii) Explain two dimensional arrays with an example. (8)

Or

(b) (i) Discuss any four string handling functions in C. (8)

(ii) List any two storage classes in C with examples. (8)

20. (a) (i) Explain how pointers are declared and initialized. (8)

(ii) Prescribe the method of using pointer variables in expressions. (8)

Or

(b) (i) Explain union with suitable examples. (8)

(ii) What is dynamic memory allocation? Explain briefly. (8)

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