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Question Paper Code: 51107

B.E. / B.Tech. DEGREE EXAMINATION, DECEMBER 2015

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)

- In how many generations a computer can be classified?
(a) 3 (b) 4 (c) 5 (d) 6
- Which of the following memory is volatile?
(a) RAM (b) ROM (c) EPROM (d) PROM
- The C language consists of _____ number of keywords.
(a) 32 (b) 40 (c) 24 (d) 56
- The format identifier '% i' is also used for _____ data type.
(a) char (b) int (c) float (d) double
- Which of the following cannot be checked in a switch-case statement?
(a) char (b) int (c) float (d) enum
- The loop statement terminated by a semi colon is
(a) do-while loop (b) for loop (c) while loop (d) none of the above

7. If an array is used as function argument, the array is passed
- (a) by value
 - (b) by reference
 - (c) by name
 - (d) the array cannot be used as a function argument
8. The name of all functions end with a
- (a) pair of parenthesis
 - (b) semicolon
 - (c) braces
 - (d) colon
9. To access a structure element using a pointer, _____ operator is used
- (a) dot (.)
 - (b) pointer (&)
 - (c) pointer (*)
 - (d) arrow (→)
10. A pointer variable can be
- (a) passed to a function
 - (b) changed within the function
 - (c) return to a function
 - (d) can be assigned an integer value

PART - B (5 x 2 = 10 Marks)

11. Define Flowchart.
12. Define constants in C. Mention its types.
13. Differentiate while..do and do..while statement in C.
14. What is an array? Give an example.
15. Write the difference between Structure and Union.

PART - C (5 x 16 = 80 Marks)

16. (a) Explain about the basic computer organization with a neat diagram. (16)
- Or
- (b) (i) Define computer and list out its characteristics. (4)
- (ii) What is an algorithm? Write an algorithm to compute factorial of a number n where $n > 0$. (12)
17. (a) Explain in detail about the basic data types used in C. (16)
- Or
- (b) Explain about variables, constants and its types. (16)
18. (a) (i) Write a C program to print Fibonacci series of a given number. (8)

(ii) Write a C program to find the factorial of a given number. (8)

Or

(b) Describe the statements for decision making, branching and looping. (16)

19. (a) Define arrays. Explain the array types with an example program for each type. (16)

Or

(b) (i) State the difference between call by value and call by reference. (8)

(ii) Define recursion in C. Explain the concept of recursion with example. (8)

20. (a) What are pointers? When and why they are used? Explain in detail with an example program. (16)

Or

(b) (i) Explain in detail about the most commonly used dynamic memory allocation functions. (10)

(ii) What is a preprocessor? Explain its features. (6)
