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Question Paper Code: 41106

B.E. / B.Tech. DEGREE EXAMINATION, DECEMBER 2014.

First Semester

Civil Engineering

14UCS106 – COMPUTER PROGRAMMING

(Common to all branches)

(Regulation 2014)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 1 = 10 Marks)

1. Which of the following is responsible for controlling all the operations of all other units of a computer system.
(a) CPU (b) ALU (c) GPU (d) MU
2. Which of the following provides step by step procedure for solving the problem.
(a) Flowchart (b) Algorithm (c) Program (d) Pseudo code
3. Which of the following is not a keyword of 'C'?
(a) auto (b) register (c) int (d) function
4. A declaration float a,b; occupies ____ of memory
(a) 1 byte (b) 4 bytes (c) 8 bytes (d) 16 bytes
5. Array subscripts in C always start at
(a) -1 (b) 1 (c) 0 (d) Value provided by user

6. Which header file is essential for using strcmp() function?
(a) string.h (b) strings.h (c) text.h (d) strcmp.h
7. Which of the following is a keyword used for a storage class?
(a) Printf (b) external (c) auto (d) scanf
8. malloc () function used in dynamic allocation is available in which header file?
(a) stdio.h (b) stdlib.h (c) conio.h (d) mem.h
9. What will be the size of following structure?
Struct sample {
Static int x;
inty,z; } ;
(a) 6 bytes (b) 2 bytes (c) 12 bytes (d) None of these
10. calloc () takes ____ number of arguments.
(a) 1 (b) 2 (c) 3 (d) 4

PART - B (5 x 2 = 10 Marks)

11. Define: Algorithm and Pseudo code.
12. Give an example for loop structure.
13. Give any two functions related to string handling.
14. What is the need for pointers?
15. Give some examples for preprocessor directives.

PART - C (5 x 16 = 80 Marks)

16. (a) Elaborate on different generations and classifications of Computers. (16)
- Or
- (b) (i) Explain the various phases involved in problem solving. (8)
- (ii) With suitable example explain the need for flowchart. (8)

17. (a) (i) What are the different data types available in C. With sample programs demonstrate the use of the data types (8)
- (ii) With suitable examples explain the concept of operators. (8)

Or

- (b) (i) Explain the Switch case operation with suitable example. (8)
- (ii) Differentiate While do and Do while statement with suitable example. (8)

18. (a) (i) Write a program using pointers to read an array of integers and print its elements in ascending order. (8)
- (ii) With suitable examples explain the string handling functions. (8)

Or

- (b) (i) Write a C program to find whether the given word is palindrome. (8)
- (ii) Write a program to add two N x N matrices. (8)

19. (a) (i) Write short notes on dynamic memory allocation. (8)
- (ii) Differentiate Pass by value & Pass by reference with suitable example. (8)

Or

- (b) With suitable examples discuss the need and usage of pointers. (16)

20. (a) What is the difference between structures and unions? With suitable examples substantiate the above point. (16)

Or

- (b) Write a program that will generate a data file containing list of employees with their salary details. Read the file and display the pay slip for a given employee.

(16)