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Question Paper Code: 99278

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2022

Open elective

Civil Engineering

19UCS978 - Introduction to C Programming

(Common to ECE, EEE, EIE, Mechanical, IT, Chemical & biomedical Engineering branches)

(Regulation 2019)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (5x 1 = 5 Marks)

- For 16 bit compiler allowable range for integer constant is CO1- U
(a) $-3.4e38$ to $3.4e38$ (b) -32767 to 32768 (c) -32668 to 32667 (d) -32768 to 32767
- Which of the following looping statements end with a semicolon? CO1- U
(a) While (b) do while (c) for (d) None of the above
- Array elements are always stored in _____ memory locations. CO1- U
(a) Sequential (b) Random (c) Sequential and random (d) None of the above
- Which of the following is the correct way of accessing the members of a structure variable? CO1- U
(a) Using dot notation ,v.x (b) Using indirection notation ,(*ptr).x
(c) Using selection notation ,ptr->x (d) All of the above
- Which header file should be included to use functions like malloc() and calloc()? CO1- U
(a) memory.h (b) stdlib.h (c) string.h (d) dos.h

PART – B (5 x 3= 15 Marks)

- List some of the characteristics of the computer. CO1-U
- Define data types with its types. CO1-U
- What is meant by recursion? CO1-U

9. What is the need of pointers? CO1-U
10. List the various file modes used in C CO1-U

PART – C (5 x 16= 80Marks)

11. (a) Draw and explain the basic organization of the computer.. CO1- U (16)
Or
(b) Explain in detail about the classification and generation of computers CO1- U (16)
12. (a) Explain in detail about the Structure of C program and define each section with a relevant example CO1- U (16)
Or
(b) Describe the various Operators in C. CO1- U (16)
13. (a) What is two dimensional array and how to declare and initialize a two dimensional array in C? Write a program for Addition of 2 matrices. CO3- App (16)
Or
(b) Write a C program to input an array of 10 integers and find the maximum and minimum number in the array. Also, Calculate the average of all values in the array. CO3- App (16)
14. (a) Explain in detail about structure with example CO1- U (16)
Or
(b) Define Union? Write a program for student mark analysis system. CO1- U (16)
15. (a) Write a program to illustrate the use of Random access file CO2- App (16)
Or
(b) Write a program to illustrate the use of fscanf() and fprintf() function CO2- App (16)