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Question Paper Code: 31206

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2021

First Semester

Civil Engineering

01UCS106 - COMPUTER PROGRAMMING

(Common to ALL Branches)

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. Define Pseudo code.
2. List the types of number systems.
3. What is ternary operator? Give an example.
4. Define an identifier.
5. Define One-Dimensional array.
6. Define `strrev()`.
7. What is recursion?
8. How will you declare a function?
9. Define union
10. What are the different file access modes in C?

PART - B (5 x 16 = 80 Marks)

11. (a) (i) Explain the different generations of computers. (8)
(ii) Classify the different types of computer based on various categories. (8)

Or

- (b) Write the algorithm and pseudo code for finding factorial of a given number. Also draw its corresponding flowchart. (16)
12. (a) (i) With suitable examples, explain various types of operators available in C language. (10)
- (ii) Explain switch case with suitable example. (6)
- Or
- (b) Explain the decision making and branching statements in detail with example programs. (16)
13. (a) Depict how to declare and initialize multidimensional arrays. Also write a C program to subtract 3x3 matrices. (16)
- Or
- (b) Explain in detail about the string operations using built-in string functions in detail. (16)
14. (a) (i) Differentiate pass by value with pass by reference. (8)
- (ii) Write a function namely sum that accepts three arguments and return the result. Call this function from main function. (8)
- Or
- (b) Explain in detail about dynamic memory allocation and compare with static memory allocation. (16)
15. (a) (i) Describe structure data type with neat examples and compare it with unions. (10)
- (ii) Write a C program to create a class student which contains sno, sname, dept, dob. Also read and display them. (6)
- Or
- (b) Write a C program that will receive a filename and a line of text as command line arguments and write the text to a file. (16)