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Question Paper Code: 11006

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

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 algorithm and flowchart.
2. Mention the major developments in third generation computers.
3. State the need of compiling a high level language program.
4. Write the use of switch statement.
5. How can you declare a two-dimensional integer array?
6. What is the purpose of null character in strings?
7. Define recursion.
8. Name any two functions used to allocate memory dynamically.
9. Create a structure student with name, rollno, address and average of marks as members.
10. List out the storage classes.

PART - B (5 x 16 = 80 Marks)

11. (a) (i) Summarize the different types of computers based on various categories. (8)
(ii) Convert the decimal number 823 to binary and octal equivalent. (8)

Or

- (b) Write the algorithm and pseudo code for finding factorial of a given number. Also draw its corresponding flowchart. (16)
12. (a) Explain the three looping statements with their syntax, flowchart and give simple examples. (16)

Or

- (b) (i) Explain any five types of operators with examples. (10)
(ii) Write a C program to find out biggest of three numbers. (6)
13. (a) Write a C program to read two matrices and calculate sum of the matrices and display it, if the order of two matrices is equal otherwise print the appropriate error message. (16)

Or

- (b) (i) Write a C program to sort the given 'n' numbers in ascending order. (8)
(ii) Name and give the use of any four built-in functions in <string.h> header file. (8)
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) (i) How can you access array elements using pointers? Explain with simple examples. (8)
(ii) Write short notes on pointer arithmetic. (8)
15. (a) (i) Compare structure with union. (4)
(ii) Create a structure book with the following members: title, price, author and publisher. Write a C program to read the details of five books from the keyboard and print it in the screen. (12)

Or

- (b) Briefly explain the following function in File I/O.
(1) fopen() (2) fgetc() (3) fseek() (4) fprintf() (16)