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2E2006**2E2006****B.Tech. I Year II Semester (Main) Examination-2013****206 Fundamentals of Computer Programming****Time : 3 Hours****Maximum Marks : 80****Min. Passing Marks : 24****Instructions to Candidates:**

Attempt any **five** questions, selecting **one** question from each unit. All questions carry **equal** marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.)

UNIT - I

1. a) What do you understand by macro substitution? Write a macro to compute average of 2 mid term test marks. (8)
- b) Is there any difference between header file and library file? Explain. (4)
- c) Which operator has highest precedence? Explain this operator's usage. (4)

OR

1. a) Explain with suitable example the storage classes used in 'C' language. (8)
- b) Explain the use of enumerated datatype with a suitable example. (4)
- c) What is type casting? Explain with a suitable example. (4)

UNIT - II

2. a) Define a structure called cricket that will describe player name, team name and batting average. Using cricket, declare an array called player with 50 elements and write a program to read the information about all the 50 players and print a team wise list containing names of players with their batting average. (12)

- b) What are command line arguments? Explain. (4)

OR

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2. a) Write a function (using pointer parameters) that compares 2 integer arrays to see whether they are identical. The function returns 1 if they are identical, 0 otherwise. (10)

- b) Is there any difference between structure and union? Explain. (6)

UNIT - III

3. a) Write a program to create a sequential file that could store details about 5 products. Details include product code, cost and number of items available and are provided through keyboard. (12)

- b) What is ferror() function? (4)

OR

3. a) Write a program that reads a file containing integers and appends at its end the sum of all integers. (10)

- b) What do you understand by 'dynamic memory allocation'? Explain. (6)

UNIT - IV

4. a) Develop array of 10 elements. Each element contains student name, Roll no. and marks. Find the average of the class. Use pointers in passing parameters. (12)

- b) What do you understand by void pointer? Explain. (4)

OR

4. a) Write a program to compute no. of 1's in the binary representation of a decimal number. User will input the numbers e.g. 10,20,30 etc from a file named Data. (12)

- b) How will you pass an array in a function? Explain? (4)

UNIT - V

5. a) Convert the following

i) $3987_{(10)} = ?_{(16)}$

ii) $4A\ 5B_{(16)} = ?_{(10)}$

(8)

b) Write short notes on

i) Pseudo code

ii) Volatile memory

(8)

OR

5. a) Convert the following:

i) $101101010110_{(2)} = ?_{(8)}$

ii) $798C_{(16)} = ?_{(8)}$

(8)

b) Write short notes on:

i) Direct access memory

ii) Assembly language.

(8)