2E2006

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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

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)**

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