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2E2006

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B. Tech. II Sem. (Back) Exam., May – 2018
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.

Use of following supporting material is permitted during examination. (Mentioned in form No.205)

1. NIL_____   2. NIL_____

UNIT-I

Q.1 (a) Explain the storage classes with Examples. How it is used in C language?   [8]

(b) Write a program to generate the following pattern. http://www.rtuonline.com [8]

```
*   *   *   *   *

  *   *   *   *

    *   *   *

      *   *

        *
```

OR

Q.1 (a) What is meant by scope of variables in C? What are the different types of variables on the basis of scope? List and Explain with example. [10]

(b) What are the data types available in C? Explain with example. [6]

UNIT-II

Q.2 (a) Write a program in C language for swapping two numbers using pointer. [8]

(b) What is pointer? Discuss advantages of pointer. http://www.rtuonline.com [8]

OR

Q.2 (a) What is Array? What are the advantages of array? Write a program to find maximum value from n values in array. [5+5=10]

(b) What do you mean by Command Line Arguments? Explain with example. [6]

UNIT-III

Q.3 (a) Explain the file opening option used to open a file in C language. What are the different modes associated with f open ( )? [10]

(b) Differentiate between Static Memory Allocation and Dynamic Memory Allocation. [6]

OR

Q.3 (a) Can a file be opened simultaneously for reading and writing? Justify your answer.

[8]

(b) What are the differences between arrays and structure? What do you mean by Structure declaration and Array of Structure declaration? Explain with example. http://www.rtuonline.com

[8]

UNIT-IV

Q.4 (a) What is Structure? What are its advantages?

[8]

(b) Differentiate between Call by value and Call by reference passing methods.

[8]

OR

Q.4 (a) Explain functions in C language with example.

[10]

(b) Write short note on passing an array to a function?

[6]

UNIT-V

Q.5 (a) Define block diagram of computer system.

[4]

(b) Explain about compiler, assembler and interpreter.

[4]

(c) Explain various types of memory in detail.

[8]

OR

Q.5 (a) Make a flow chart to find Maximum number among three numbers.   [4]

     (b) Convert the following: http://www.rtuonline.com   [12]

          (i) $(D3E0)_{16} = (?)_{10}$

          (ii) $(736.5)_8 = (?)_{10}$

          (iii) $(.101011)_2 = (?)_8$

          (iv) $(FB9.EC)_{16} = (?)_8$

          (v) $(26.875)_{10} = (?)_2$

          (vi) $(845.5)_{10} = (?)_{16}$