



(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 996101

Roll No.

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B. Tech.

(SEM. I) (ODD SEM.) THEORY
EXAMINATION, 2014-15
COMPUTER PROGRAMMING

Time : 3 Hours]

[Total Marks : 100

- Note :**
- 1) Attempt all questions.
 - 2) All questions carry equal marks.

- 1 Attempt **all** parts of this question : **(2×10=20)**
- (a) Differentiate between algorithm and flowchart.
 - (b) Define algorithm. What are the characteristics of an algorithm ?
 - (c) What is a pointer and how it is initialized ?
 - (d) Define identifier and keywords.
 - (e) Explain the getch() and putch () function with example.
 - (f) What are the string handlings functions ?
 - (g) What is compiler ? How is it different from interpreter ?
 - (h) What are the computer Codes ?
 - (i) Explain difference between while loop and do-while loop with example.
 - (j) If a=.10 and b=20 , find the value of statement :
a>b ? a+5 : b+5

- 2 Attempt any **three** parts of this question : (10×3=30)
- What is digital computer ? Draw a block diagram of it and explain ALU and CU of it.
 - What is an operating system ? Give name of any five operating Systems and explain any one of them.
 - What is flowchart ? Design a flowchart and write algorithm to find greatest among three numbers given by user.
 - What are the various primary data types in C language ? Also write the size and format --specifier of each data type.
 - Convert the following numbers :
 - $(325.45)_{10} = (\quad)_2$
 - $(101010.10001)_2 = (\quad)_8$
 - $(ABC.75)_{16} = (\quad)_{10}$
 - $(10111011.1101101)_2 = (\quad)_{16}$
 - $(1101)_2 = (\quad)_{10}$
- 3 Attempt any **two** parts of the following : (5×2=10)
- What are the different types of Operator in C language ?
 - Distinguish between local and global variables with the help of example program.
 - What are storage classes ? Explain its type.
- 4 Attempt any **two** parts of the following : (5×2=10)
- Explain the concept of modular programming.
 - Write a short note on call by value and call by reference parameter passing method with example.
 - Write down the difference between the associativity and precedence of operators.

- 5 Attempt any **two** parts of the following : (5×2=10)
- Write a program to add two matrices of dimension 3*3 and store the result in another matrix.
 - What is the difference between Array and Structure ? Write the syntax also.
 - What is difference between preprocessor and macros ?
- 6 Attempt any **two** parts of the following : (5×2=10)
- Define a structure that can describe a hotel. It should have the members that include the name, address, grade, room charge and number of rooms. Write a function to perform the following operation. To print out hotel of given grade in order of room charges.
 - Write a program in C to find the largest number in array.
 - Write a program to read five digits and print the sum of the digits.
- 7 Attempt any **two** parts of the following : (5×2=10)
- Write a program to copy content of one file to another file.
 - What are advantages and disadvantages of recursion ? Write a program to find the factorial of a number using recursion.
 - Write a program in C to generate the following series :


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1 2 3 4 5
1 2 3 4
1 2 3
1 2
1
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