

Printed Pages: 4

1036

NCS-101

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

Paper ID : 110101

Roll No.

B.Tech.

(SEM. I) THEORY EXAMINATION, 2015-16

COMPUTER SYSTEM & PROGRAMMING IN C

[Time: 3 hours]

[Total Marks:100]

Note : Attempt all Questions from all Sections as per directions

Section-A

1. Attempt **all** parts of this section. Answer in brief.

(2×10=20)

- (a) List five internal and external commands used in DOS operating system.
- (b) Explain the basic structure of C program.
- (c) How binary file differ from text file?
- (d) Give difference between android and window OS.
- (e) Differentiate between structure and union.

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- (f) What is void pointer? How is it different from other pointers?
- (g) Justify that operating system is a resource manager.
- (h) Explain the dot (.) operator in C language with proper example.
- (i) What do you mean by operator precedence?
- (j) Write difference between implicit and explicit type casting.

Section-B

Attempt any five questions from this section. (10×5=50)

2. What are the different types of functions? Write a program in C to sort list of names of students in an ascending order.
3. Write a short note on top down program development approach.
4. Write a program in C to reverse a string through pointer.
5. Write difference between call by value and call by reference with suitable example.

42000 (2) NCS-101

6. What are the characteristics of an algorithm? Write an algorithm to find the sum of all the numbers divisible by 3 between 11 and 50.
7. Illustrate and compare the static and extern storage classes with a relevant example in C.
8. State the features of pointers. Write a C program to sort a given number using pointers.
9. Differentiate between the following :
 - (i) High level language and low level language.
 - (ii) Linker and loader.
 - (iii) Logical error and run time error.
 - (iv) Algorithm and flowchart.

Section-C

Answer any two questions from this section: (15×2=30)

10. What are the various types of files that can be created in C language? Also give different modes in which these files can be used with proper syntax. Write a program in C language to append some more text at the end of an existed text file.

42000 (3) NCS-101

11. (a) Write a C program to check whether a given square matrix is symmetric or not.
- (b) Define data types in C. Discuss primitive data types in terms of memory size, format specifier and range.
- (c) List out various file operations in 'C'. Write a C program to count the number of characters in a file.
12. (a) Write the difference between type conversion and type casting. What are the escape sequences characters?
- (b) What are the different types of operators in C language and also write down the difference between the associativity and precedence of operators.

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