

N-505

Seat No. _____

First Year B. C. A. (Sem. II) Examination

May/June - 2004

Programming Language - I

Time : 3 Hours]

[Total Marks : 100

- Instructions :
- (1) The question paper contains 5 questions.
 - (2) Question no. 1 is compulsory.
 - (3) Mention your choice clearly ; do not intermix your options.
 - (4) Use space properly ; do not waste paper.

1 Answer in brief : 10

- (1) Differentiate between signed and unsigned integer.
- (2) In how many ways can comments be included in a C program ?
- (3) What is type casting in C ?
- (4) How character constant is expressed in C ? How does it differ from string constant ?
- (5) What is the significance of EOF ?
- (6) What is meant by Nested Structure ?
- (7) What is union ?
- (8) What is a global variable? How do you define global variable in C ?
- (9) Differentiate between break and continue statement in C.
- (10) List out commonly used escape sequences.

2 (a) Explain do.... while Loops using proper example. 4

OR

(a) Explain the selective case statement in detail with example. 4

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(b) What is recursion? Explain giving example of a recursive function. 5

(e) Write a recursive 'C' code to generate first N number of Fibonacci series. 6

OR

(c) Write a program in C to count number of odd numbers, even numbers and zeroes in an array of n integers. 6

3 (a) What are the differences between Array and Structure. Explain with examples. 4

OR

(a) Can a function have more than one return statement and using them we can return more than one value from function ? Show with example. 4

(b) Explain user defined function in C. What are function prototypes ? What is their purpose ? Where within a program function prototype normally placed ? 5

(c) Write a C program to find the sum of the digits of a 6 digit no. 6

OR

(c) Write a program to input elements in 3×3 matrix and find the sum of elements row-wise and column-wise. 6

4 (a) Explain pointers. Explain 'address of' and 'indirection' operators with example. 4

OR

(a) Explain structure with example. What is the difference between structure and union? 4

(b) Write a declaration for an array of 5 integers initialized to zero, a pointer to the first element of this array, a constant integer initialized to 50 and a pointer to this constant and print the values of array using the pointer. 5

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(c) Use following structure Item{Item_no, name, color, rate, qty}. Input the information for n items and display it in proper format along with amount, where amount=rate * qty and also the grand total for n items. 6

OR

(c) Declare pointer to the integer and use it instead of the one - dimensional integer array having ten elements. Print the maximum, minimum and sum of all 10 integers. 6

5 (a) Explain and illustrate pointer to a structure using a C program. 8

(b) Write a 'C' program to count the no. of title case words in a file. 7

OR

(b) Write a 'C' program to copy one file to another, replacing all lowercase characters with their uppercase equivalents. 7

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