

Name :

Roll No. :

Invigilator's Signature :

CS/BCA/SEM-1/BCA-103/2010-11

2010-11

INTRODUCTION TO PROGRAMMING

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

GROUP - A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for the following :

10 × 1 = 10

- i) The operator & is used for
- | | |
|----------------|----------------|
| a) Bitwise AND | b) Bitwise OR |
| c) Logical AND | d) Logical OR. |
- ii) Coercion is related to
- | | |
|---------------------|--------------------|
| a) Cast Operator | b) Binary Operator |
| c) Ternary Operator | d) All of these. |
- iii) The size of a character variable in 'C' is
- | | |
|-------------|-------------------|
| a) 4 bytes | b) 8 bytes |
| c) 16 bytes | d) None of these. |
- iv) Data type of the controlling statement of a SWITCH statement cannot be of the type
- | | |
|----------|-----------|
| a) int | b) char |
| c) short | d) float. |

- v) How long the following loop runs ?
for (x = 0; x = 3; x++)
a) Three times b) Four times
c) Forever d) Never.
- vi) The associativity of operator ++ is from
a) left to right b) right to left
c) both (a) and (b) d) none of these.
- vii) The CONTINUE statement cannot be used with
a) for b) switch
c) do d) while.
- viii) Output of the following program will be
main()
{
 int d = 0;
 if(d=5)
 printf("Right");
};
}
a) Right b) Wrong
c) WrongRight d) None of these.
- ix) Size of the following union (assume size of int=2; size of float=4 and size of char=1) is
union Jabb
{
 int a;
 float b;
};
a) 2 b) 4
c) 1 d) 6.
- x) File is a
a) data type b) region of storage
c) variable d) register.

GROUP - B

(Short Answer Type Questions)

Answer any *three* of the following. $3 \times 5 = 15$

2. Draw a flowchart that can check whether a supplied number is palindrome or not.
3. Write a program to convert binary number to its equivalent decimal number.
4. What is a symbolic constant ? What do you mean by conditional operator ? What do you mean by binary operator ? $2 + 2 + 1$
5. What is the difference between break and continue ? What is a block ? What is a statement terminator ? $2 + 2 + 1$
6. What is a null statement ? What are local variable and global variable ? What is a null string ? $1 + 3 + 1$

GROUP - C

(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

7. a) Write a C program to reverse an integer number without using `strrev()` and `strlen()`, subtract 9 from the reversed number and print the result. [For example, if the given number is 678, then its reverse is 876. Subtracting 9 will give 867.] 8
b) Describe the different classes of data types supported in C along with their keyword equivalent and sizes. 7
8. a) Write a program to print the series as given along with the sum : $1 - 2 + 3 - 4 + 5 - \dots n.$ 8
b) Define array. Write the syntax of different types of array along with examples. 7

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9. a) What do you mean by NULL pointer ? In which header file is it defined ? How will you include that header file ? 1 + 1 + 1
- b) Write a program to reverse a given string of characters. You should not use `strrev()`. 6
- c) Write a program to multiply two matrices. 6
10. a) "C is a high level language." Comment on the statement critically. 3
- b) What is a preprocessor in C language ? What are directives ? Illustrate with examples. 3 + 3 + 3
- c) What is macro ? Give an example program to explain the working principle of macro. 3
11. a) What is a pointer ? What are the different characteristics of a pointer ? 2 + 3
- b) "Pass by address refers to the address of a variable passed as an argument to the called function." Justify the statement. 5
- c) Write a program to swap the values between two variables using pointers. 5
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