

BCA 171103

Roll No. of candidate

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BINA CHOWDHURY CENTRAL LIBRARY
(GIMT & GIPS)
Azara, Hatkhowapara,
Guwahati -781017

20/3) 2021

B.C.A 1st Semester End-Term Examination

INTRODUCTION TO C PROGRAMMING

(New Regulation)

Full Marks – 70

Time – Three hours

The figures in the margin indicate full marks
for the questions.

Answer question No. 1 and any *four* from the rest.

1. Answer the following (MCQ / Fill in the blanks) :

- (i) How would you round off a value from 1.66 to 2.0?
 - (a) ceil(1.66)
 - (b) floor(1.66)
 - (c) roundup(1.66)
 - (d) roundto(1.66)
- (ii) Which of the following special symbol allowed in a variable name?
 - (a) * (asterisk)
 - (b) | (pipeline)
 - (c) - (hyphen)
 - (d) _ (underscore)
- (iii) What is the purpose of "rb" in fopen() function used below in the code?

```
FILE *fp;  
jfp = fopen("source.txt", "rb");
```

 - (a) open "source. txt" in binary mode for reading
 - (b) open "source.txt" in binary mode for reading and writing
 - (c) create a new file "source.txt" for reading and writing
 - (d) none of above

[Turn over

- (iv) Which of the following is not logical operator?
- (a) &
 - (b) &&
 - (c) ||
 - (d) !
- (v) Which of the following cannot be checked in a switch-case statement?
- (a) Character
 - (b) Integer
 - (c) Float
 - (d) enum
- (vi) In C, if you pass an array as an argument to a function, what actually gets passed?
- (a) Value of elements in array
 - (b) First element of the array
 - (c) Base address of the array
 - (d) Address of the last element of array
- (vii) What will be the output of the program?

```
#include<stdio.h>

int main()
{
    int y=128;
    const int x=y;
    printf("%d\n", x);
    return 0;
}
```

- (a) 128
- (b) Garbage value
- (c) Error
- (d) 0

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- (viii) The keyword used to transfer control from a function back to the calling function is
- (a) switch
 - (b) goto
 - (c) go back
 - (d) return
- (ix) If the two strings are identical, then strcmp() function returns
- (a) -1
 - (b) 1
 - (c) 0
 - (d) Yes
- (x) How will you print \n on the screen?
- (a) printf("\n");
 - (b) echo "\\n";
 - (c) printf('\n');
 - (d) printf("\\n");

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2. (a) Briefly explain the general steps of writing a C program. (3)
- (b) What is the preprocessor directive? Why it is required? (1 + 2 = 3)
- (c) What is syntax error and semantic error? Write atleast two difference between them. (2 + 2 = 4)
- (d) What is the function of linker and loader? Explain. (5)
3. (a) What are delimiters? Explain any two of them with their functions. (2 + 3 = 5)
- (b) What is the difference between variable and constant? Explain datatype. (3 + 2 = 5)
- (c) What is the difference between Relational operator and Logical operators? Explain. (5)
4. (a) What are the pointers? Is multiplication of two different pointers possible? Give reason to support your answer. (2 + 1 + 2 = 5)
- (b) Write short notes on the following : (Any two) (2 × 5 = 10)
- (i) Pre increment and post increment
 - (ii) If-else and switch statement
 - (iii) for loop and while loop.

5. (a) Differentiate between one dimensional array and two-dimensional array. (5)
- (b) Write a C program to insert an element at specific index position. (5)
- (c) What is call by reference? Write a C program to swap two numbers using call by reference. (1 + 4 = 5)
6. (a) What is recursion? Write a C program to explain the benefits of using recursion. (2 + 5 = 7)
- (b) What is the difference between "stdio.h" and "string.h"? Explain. (3)
- (c) What is the difference between structure and union? What is the advantage of using structure in C program? (1 + 4 = 5)
7. (a) Write a C program read a text file and print the output. (6)
- (b) What is command line arguments? Explain its usage in C program? (3 + 2 = 5)
- (c) What is dangling pointer? (2)
- (d) Define void. When void is used in function? (1 + 1 = 2)
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