

INTRODUCTION TO C PROGRAMMING

Paper : BCA 1.3/BCA-HC-1016

Full Marks : 80/60

Time : Three hours

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

[For CBCS Students only 2 (two) questions to be answered from Q. No. 6]

1. Write the following terms with suitable example : 10

- (i) Syntax of C program structure
- (ii) Automatic type conversion
- (iii) User defined function
- (iv) Syntax of do..while loop
- (v) Pointer declaration
- (vi) Bitwise operator
- (vii) Nested if

4. Answer the following : 3x4=12

(a) Rewrite the following program after removing the syntactical error(s), if any. Underline each correction.

```
#include<stdio.h>
void main()
{
    int X,Y;
    Printf(x) ;
    for (Y = 0; y<10, Y++)
        if X = Y
            printf(Y+X)
        else
            printf(y);
}
```

- (b) Explain formatted input and output.
- (c) What is recursion? Explain with example.
- (d) What is structure ? Explain with example.

(viii) Syntax of structure definition

(ix) Opening a file

(x) Command line arguments.

2. Differentiate the following with suitable example : 2x5=10

- (a) Recursion and non-recursion
- (b) Binary file and text file
- (c) Built-in function and user-defined function
- (d) Call by value and call by reference
- (e) Break and continue statements.

3. What will be the output of the following program segment ? (assume no syntax error) 2x5=10

```
(a) void main()
{
    int i = 2, j = 1, x;
    x = ++i + ++j - --j - --i;
    printf("x=%d i=%d j = %d", x, i, j);
}
```

5. Point out the errors, if any, in the following C statements. Also give proper justification. 8

- (i) float a=4.6;
- (ii) name | | =(Guwahati);
- (iii) 3.14*r*r=area;
- (iv) x = (a+b) + (a-b) ;
- (v) salary=basic pat + house rent;
- (vi) Int x=5;
- (vii) Printf (a);
- (viii) int *p; folat x; p = 8x

6. Write C program for the following : 5x6=30

(i) Write a program to find the roots of a quadratic equation. The roots of a quadratic equation is

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

(b) #include <stdio.h>
void Execute(int x, int y)

```
{
    int temp=x+y;
    x += temp;
    if (y != 200)
        printf("%d", temp);
}
void main()
{
    int A=50, B = 20;
    Execute (A,B);
    printf("%d\n%d\n", A, B);
}
```

(c) void main()

```
{
    int i;
    for (i = 1; i<=10; i++)
        if (i%2==1)
            break;
    printf(" %d ",i);
}
getch();
}
```

(d) void main()

```
{
    int a = 1, b = 10, c = 15, x;
    clrscr();
    x=(a>10)? (b>10?5:15): (c>15? 30:40);
    printf("x=%d ", x);
    getch();
}
```

(e) void main()

```
{
    int x = 5, y = 6, d, e;
    clrscr();
    d = x > y;
    e = x < y;
    printf("%d %d", d, e);
    getch();
}
```

(ii) Write a program to generate the following series : 0 1 1 2 3 5 8 13.....(50 terms)

(iii) Write a program to multiply two 3x3 matrix. Also display the output.

(iv) Define a structure to represent a bank account. Include the following members :

Name of the depositor	of type string
Type of the account	of type integer
Account Number	of type integer
Balance amount in the account	of type float
function :	

- To deposit an amount
 - To withdraw an amount
 - To display accounts details
- Write the main() block to test the program.

(v)

Read few numbers from the keyboard and write the odd numbers in one file and the even numbers in another one file.

(vi) Write a program to read a string and count the number of vowels present in the string.

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42 (1) ICTH 1.1

2019

ICT HARDWARE

Paper : 1.1 (PGDCA PI)

Full Marks : 50

Time : Two hours

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

Answer Question No. 1 and any four from the rest.

1. Write the following in short: $2 \times 5 = 10$
 - (a) Write two basic differences between RAM and ROM.
 - (b) Write the full form of CDROM and SMPS.
 - (c) What do you mean by FAT and NTFS?
 - (d) What do you mean by RJ 45 connectors?
 - (e) Write two different kinds of motherboards.

Contd.

2. (a) What do you mean by impact printers? Explain dot matrix printer. $1+4=5$
(b) How to install additional hard disk? Write the steps. 5
3. (a) What is a network cable? Explain optical fiber cable with diagram. $1+4=5$
(b) Draw the block diagram of a computer and briefly explain the components of a computer. 5
4. (a) What do you mean by virus? Briefly explain the disk clean-up. $1+4=5$
(b) Briefly explain the minicomputer, macrocomputer and supercomputer. 5
5. Convert the following decimal numbers into binary: $5 \times 2 = 10$
 - (a) 676-55
 - (b) 24567
6. Convert the following binary numbers into octal and hexadecimal and decimal: $2+3+5=10$
 - (a) 101010100010 into octal
 - (b) 10101100110101107101 into hexadecimal
 - (c) 110011-101 into decimal
7. Write short notes on: (any two) $2 \times 5 = 10$
 - (a) Virtual Memory
 - (b) ASCII and EBDIC
 - (c) Applications of ICT
 - (d) IP Address

42 (1) ICTH 1.1/G 2

42 (1) ICTH 1.1/G 3

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42 (1) INOA 1.4

2019

**INTRODUCTION TO
OFFICE AUTOMATION**

Paper : PGDCA-1.4

Full Marks : 20

Time : 40 minutes

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

Answer **any four** questions.

1. What is MS Word ? What are its advantages ?
2+3=5
2. Explain the different steps of page setting
in MS Word. 5
3. Explain the features of PowerPoint
presentation. 5
4. What do you mean by mail merge ? Write
the different steps to merge a word
document in a mail. 1+4=5

5. Write the steps to insert and delete cells,
rows and columns in an Excel worksheet. 5
6. What do you mean by marks in
spreadsheet ? Write the steps to insert a
function in an Excel worksheet. 2+3=5
7. What are presentation tools ? What is the
purpose of Microsoft PowerPoint software ?
1+4=5

Contd.

42 (1) INOA 1.4/G

2

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