

Mid Semester Exam - Fundamentals of Computer & Programming (FCP)(CS109S2)

Mid semester exam

Subject: Fundamentals of Computer & Programming (CS109S2)

Exam Date: 19-May-2021

Exam Time: 9:30 AM to 10:30 AM.

Total Questions: 45

Mode of Exam - MCQ

Important Instructions:

1. Only USE your SVNIT E-mail ID to open google MCQ form/Exam. Google form link will be provided to your following respective google meet link at 9.30am.
2. Your (web)camera is required to be ON throughout the exam. In case of giving exam through mobile, use another mobile to join google meet and turn ON the camera.
3. Marks may be deducted in case of late submission beyond 10.30am and keeping camera OFF during the exam in spite of instructions by invigilators.

Wish you all the best for the exam...

The respondent's email (**keyur@coed.svnit.ac.in**) was recorded on submission of this form.

Your Name *

Dr. Keyur Parmar

Your Admission Number *

NA

Your Division Number(ex. D11)

NA

Your SVNIT Email ID *

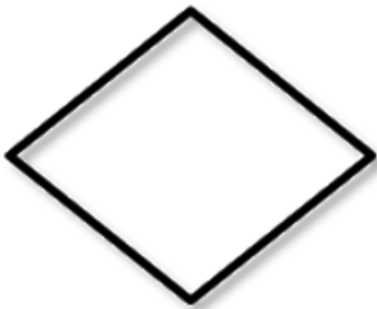
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Untitled Section

The following image denotes _____.



- ☐ Start/End
- ☐ Computation
- ☒ Decision Making
- ☐ Input/Output

Benefits of using computers are

- ☐ Speed
- ☐ Reliable
- ☐ Storage
- ☒ All of the above

Which of the following is not an input device?

- ☐ Touch screen monitor
- ☐ Keyboard
- ☐ Scanner
- ☒ Printer

For base(R)=7 calculate R's and (R-1)'s complement of number 6413

- ☒ 0254, 0253
- ☐ 0253, 0254
- ☐ 3687, 3686
- ☐ 3686, 3687

Add $(4567)_{\text{base}10} + (8714)_{\text{base}10} = (?)_{\text{base}9}$

- ☒ 14382
- ☐ 13281
- ☐ 13382
- ☐ 14281

What is the output of the following program?

```
#include <stdio.h>
int main()
{
    int a = 1, b = 1, c;
    c = a++ + b;
    printf("a=%d, b=%d, c=%d", a, b, c);
    return 0;
}
```

- ☐ a = 1, b = 1, c=2
- ☐ a = 2, b = 1, c=3
- ☒ a = 2, b = 1, c=2
- ☐ a = 2, b = 2, c=3

Which of the following are the functions of Central Processing Unit?

- ☐ To carry out arithmetic and logic functions
- ☐ to control use of main memory to store data and instructions
- ☐ to control the sequence of operations
- ☒ All of the above

What is the output of the C Program.?

```
int main()
{
    int n=6;

    while(n==6)
    {
        printf("PROGRAMMING");
        break;
    }

    return 0;
}
```

- ☐ PROGRAMMING is printed unlimited number of times
- ☐ Compiler error
- ☒ PROGRAMMING
- ☐ None of these

What is the output of the C Program.?

```
int main()
{
    int a=36;

    while(a <= 38)
    {
        printf("%d ", a);
        a++;
    }

    return 0;
}
```

- ☒ 36 37 38
- ☐ 36 36 36
- ☐ 38 38 38
- ☐ Compiler error

Guess the output of following:

```
#include<stdio.h>
void main()
{
    int i = 0;
    while (++i)
    {
        printf("fcp");
    }
}
```

- a) fcp
- b) fcp is printed infinite times
- c) Varies according to compiler
- d) Error

- ☐ a
- ☒ b
- ☐ c
- ☐ d

What is output of below program?

```
int main()
{
int i,j,k,count;
count=0;
for(i=0;i<5;i++)
{
    for(j=0;j<5;j++)
    {
        count++;
    }
}
printf("%d",count);
return 0;
}
```

- (A) 5
- (B) 10
- (C) 25
- (D) 50

- ☐ A
- ☐ B
- ☒ C
- ☐ D


```
int main() {  
    int c=0, no=50;  
    do{  
        no/=10;  
        c++;  
    }while(no>0);  
    printf("%d %d",no, c);  
    return 0;  
}
```

- ☐ 0 5
- ☐ 2 0
- ☒ 0 2
- ☐ 5 0

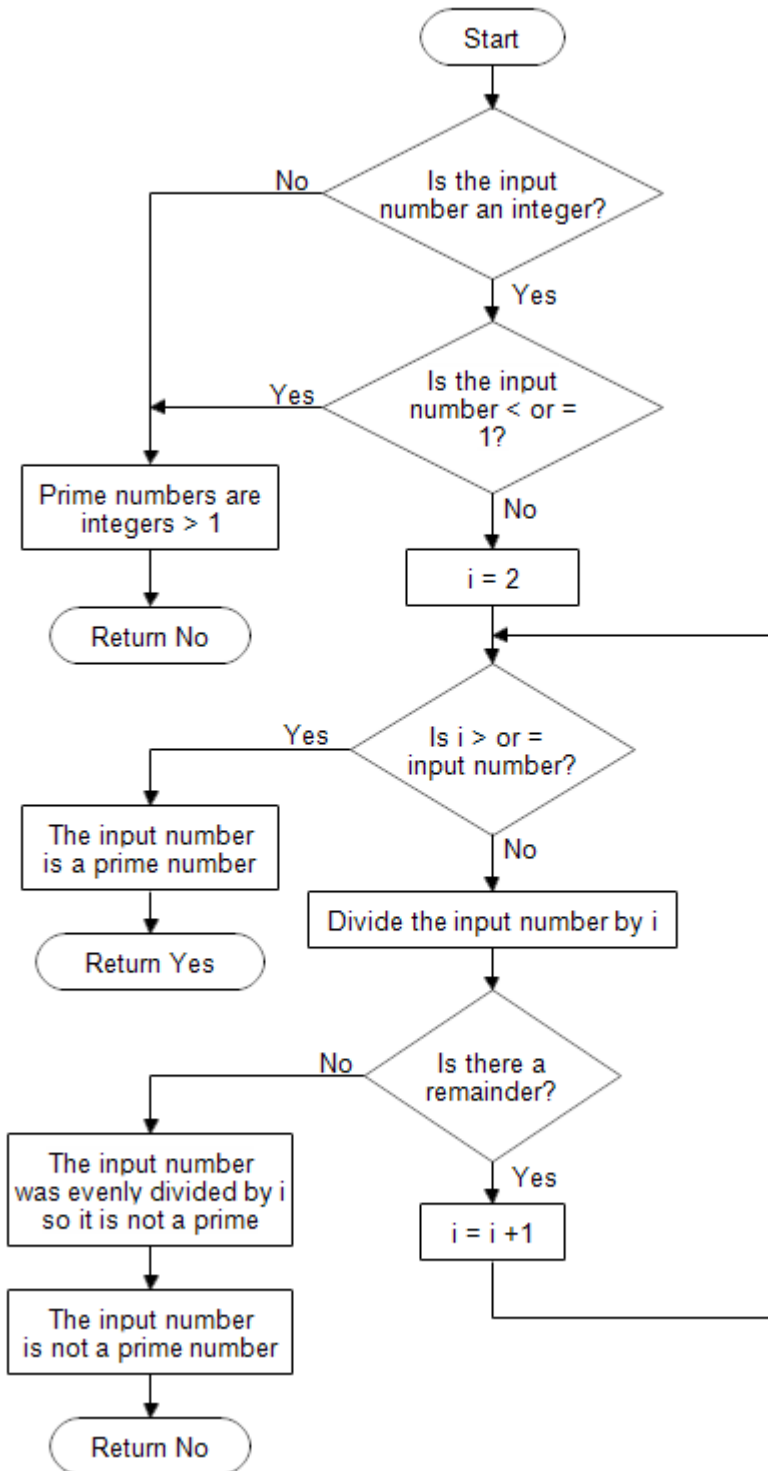
_____ is known as CPU's working memory.

- ☐ Address bus
- ☒ Registers
- ☐ Data bus
- ☐ Hard Disk

The fastest memory in computer system is _____

- ☐ RAM
- ☐ ROM
- ☒ Cache
- ☐ Hard Disk

If input number is 35, how many times $i=i+1$ statement is executed?

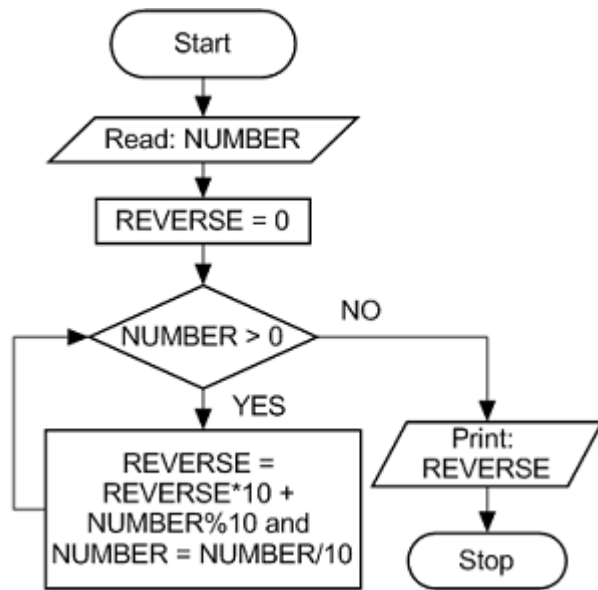


☐ 0 times

☐ 4 times

☐ 5 times☒ 3 times

If NUMBER is entered as 34521, how many times the condition $\text{NUMBER} > 0$ will be executed?

☐ 5 times☒ 6 times☐ 4 times☐ 3 times

What will be the output of the following program?

```
#include <stdio.h>
int main()
{
    int i = 0;
    int j = i++ + i;
    printf("%d\n", j);
    return 0;
}
```

- ☐ 0
- ☒ 1
- ☐ 2
- ☐ Compile time error

What will be the output of the following C code?

```
#include <stdio.h>
int main()
{
    int a = 10, b = 5, c = 5;
    int d;
    d = a == (b + c);
    printf("%d", d);
    return 0;
}
```

- ☐ 10
- ☒ 1
- ☐ 5
- ☐ Syntax error

What will be the output of the following C code?

```
#include <stdio.h>
int main()
{
    int a = 10;
    double b = 5.6;
    int c;
    c = a + b;
    printf("%d", c);
    return 0;
}
```

- ☒ 15
- ☐ 16
- ☐ 15.6
- ☐ 10

What will be the output of the following program?

```
#include<stdio.h>
int main()
{
    int a = 1, b = 2, c = 3;
    printf("%d", a += (a += 3, 5, a));
    return 0;
}
```

- ☐ 6
- ☐ 9
- ☐ 12
- ☒ 8

What will be the output of the following C Program?

```
#include<stdio.h>
int main()
{
    int x=12, y=7, z;
    z = x!=4 || y == 2;
    printf("z=%d\n", z);
    return 0;
}
```

- ☐ z=0
- ☒ z=1
- ☐ z=4
- ☐ z=2

what will be the output of the following program?

```
#include<stdio.h>
int main()
{
    int i=4, j=-1, k=0, w, x, y, z;
    w = i || j || k;
    x = i && j && k;
    y = i || j && k;
    z = i && j || k;
    printf("%d, %d, %d, %d\n", w, x, y, z);
    return 0;
}
```

- ☐ 1, 1, 1, 1
- ☐ 1, 1, 0, 1
- ☐ 1, 0, 0, 1
- ☒ 1, 0, 1, 1

What will be the output of the following program?

```
#include<stdio.h>
int main()
{
    int k, num=30;
    k = (num>5 ? (num <=10 ? 100 : 200) : 500);
    printf("%d\n", k);
    return 0;
}
```

- ☐ 30
- ☐ 100
- ☒ 200
- ☐ 500

What will be the output of the following program?

```
#include<stdio.h>
int main()
{
    int x = 3;
    float y = 3.0;
    if(x == y)
        printf("x and y are equal");
    else
        printf("x and y are not equal");
    return 0;
}
```

- ☒ x and y are equal
- ☐ x and y are not equal
- ☐ Compile time error
- ☐ Run time error

What will be the output of the following program?

```
#include<stdio.h>
int main()
{
    int x, y, z;
    x=y=z=1;
    z = ++x || ++y && ++z;
    printf("x=%d, y=%d, z=%d\n", x, y, z);
    return 0;
}
```

- ☒ x=2, y=1, z=1
- ☐ x=2, y=2, z=1
- ☐ x=2, y=2, z=2
- ☐ x=1, y=2, z=1

What will be the output of the following program?

```
#include<stdio.h>
int main()
{
    int x = 10, y = 20;
    if(!(!x) && x)
        printf("x = %d\n", x);
    else
        printf("y = %d\n", y);
    return 0;
}
```

- ☐ y =20
- ☐ x = 0
- ☒ x = 10
- ☐ x = 1

What will be the output of the following program?

```
#include <stdio.h>

int main()
{
    int i=65;
    char j='A';
    if(i==j)
    {
        printf("C is WoW");
    }
    else
    {
        printf("C is tough");
    }
    return 0;
}
```

- ☐ C is tough
- ☒ C is WoW
- ☐ Compile time error
- ☐ Run time error

What will be the output of the following program?

```
#include <stdio.h>
int main()
{
    int x = 2, y = 0;
    int z = (y++) ? 2 : y == 1 && x;
    printf("%d\n", z);
    return 0;
}
```

- ☐ 0
- ☒ 1
- ☐ 2
- ☐ Compile time error

What is the other name for C Language ? : Question Mark Colon Operator.?

- ☐ Comparison Operator
- ☐ If-Else Operator
- ☐ Binary Operator
- ☒ Ternary Operator

What will be the output of the following C code?

```
#include <stdio.h>
int x;
void main()
{
    if (x)
        printf("hi");
    else
        printf("how are u");
}
```

- ☐ hi
- ☒ how are u
- ☐ compile time error
- ☐ Run Time error

$(101101101.1101)_2 + (11100.0101)_2 + (\text{AB.CD})_{16} - (743.16)_8 = (?)_{10}$

- ☒ 82.7070
- ☐ 81.7070
- ☐ 82.6060
- ☐ 81.6060

Calculate the value of X,Y, and Z from the calculation $(AX7F)_{16} + (YEZ1)_{16} = (FB50)_{16}$

- ☒ X=C, Y=4, Z=D
- ☐ X=D, Y=5, Z=E
- ☐ X=B, Y=3, Z=C
- ☐ X=D, Y=5, Z=F

The computer that process both analog and digital data is called

- ☐ Analog computer
- ☐ Digital computer
- ☒ Hybrid computer
- ☐ Mainframe computer

Which of the following is not a valid C variable name?

- ☐ int number;
- ☐ float rate;
- ☒ int \$main;
- ☐ double var_count;

Which of the following is not a valid variable name declaration?

- ☐ float PI=3.14;
- ☐ double PI=3.14;
- ☐ int PI=3.14;
- ☒ #define PI 3.14

Which is correct with respect to the size of the datatypes?

- ☐ char > int > float
- ☐ int > char > float
- ☒ char < int < double
- ☐ double > char > int

What is the output of this C code?

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
    float x = 'a';
```

```
    printf("%f", x);
```

```
    return 0;
```

```
}
```

- ☐ a
- ☐ Run time error
- ☐ a.000000
- ☒ 97.000000

What is the output of C Program

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
int x=110;
```

```
while(x<120)
```

```
{
```

```
++x;
```

```
if(x>=116 && x<=118)
```

```
continue;
```

```
printf("%d ", x);
```

```
}
```

```
return 0;
```

```
}
```

a)110 111 112 113 114 115 119 120

b)111 112 113 114 115 119 120

c)111 112 113 114 115 119

d)110 111 112 113 114 115 119

☐ A

☒ B

☐ C

☐ D

Find the output

```
#include<stdio.h>
```

```
#include<stdlib.h>
```

```
void main ()
```

```
{
```

```
    int i;
```

```
    for(i = 10; i>0;i--)
```

```
    {
```

```
        printf("%d ",i);
```

```
        if(i == 5) break;
```

```
    }
```

```
    printf("Inside loop i = %d",i);
```

```
}
```

a)10 9 8 7 6 5 4 Inside loop i = 4

b)10 9 8 7 6 5 Inside loop i = 5

c)10 9 8 7 6 5

d)10 9 8 7 6 5 Inside loop i = 5 4 3 2 1

☐ A

☒ B

☐ C

☐ D

What is output for following C Code

```
#include<stdio.h>
int main()
{
    int num=1;
    loop:
    printf("%d", num);
    num++;
    if(num<=7)
        goto loop;
}
```

- a) 1
- b) 1234567
- c) 123456
- d) Label not defined

- ☐ A
- ☒ B
- ☐ C
- ☐ D

```
#include <stdio.h>

int main()
{
    int s = 1;

    switch(s)
    {
        default:
            printf("NIT");
        case 1:
            printf("Surat");
            break;
    }

    return 0;
}
```

- ☐ NIT
- ☒ Surat
- ☐ NITSurat
- ☐ Error

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