**MCQ Questions - 1 Mark**

1. What will be the final value of x in the following C code?

#include <stdio.h>

void main()

{

int x = 5 \* 9 / 3 + 9;

}

a) 3.75

b) Depends on compiler

c) 24

d) 3

2. What will be the output of the following C code considering the size of a short int is 2, char is 1 and int is 4 bytes?

#include <stdio.h>

int main()

{

short int i = 20;

char c = 97;

printf("%d, %d, %d\n", sizeof(i), sizeof(c), sizeof(c + i));

return 0;

}

a) 2, 1, 2

b) 2, 1, 1

**c) 2, 1, 4**

d) 2, 2, 8

3. What is the type of the following assignment expression if x is of type float and y is of type int?

y = x + y;

**a) int**

b) float

c) there is no type for an assignment expression

d) double

4. Operation “a = a \* b + a” can also be written as \_\_\_\_\_\_\_\_\_\_\_

a) a \*= b + 1;

b) (c = a \* b)!=(a = c + a);

c) a = (b + 1)\* a;

**d) All of the mentioned**

5. What will be the output of the following C code?

#include <stdio.h>

int main()

{

int a = 4, n, i, result = 0;

scanf("%d", n);

for (i = 0;i < n; i++)

result += a;

}

a) Addition of a and n

b) Subtraction of a and n

**c) Multiplication of a and n**

d) Division of a and n

6. What is the output of C Program.?

int main()

{

if( 10 > 9 )

printf("Singapore\n");

else if(4%2 == 0)

printf("England\n");

printf("Poland");

return 0;

}

A) Singapore

**B) Singapore**

**Poland**

C) Singapore

England

Poland

D) England

Poland

7. What is the output of the C Program.?

int main()

{

if(-5)

{

printf("Germany\n");

}

if(5)

{

printf("Texas\n");

}

printf("ZING");

return 0;

}

A) ZING

B) Texas

ZING

**C) Germany**

**Texas**

**ZING**

D) Compiler error as a number can not be put as condition inside IF.

8. What is the output of the C Program.?

int main()

{

if(10.0)

{

printf("Texas\n");

}

printf("ZING");

return 0;

}

A) ZING

**B) Texas**

**ZING**

C) Compiler error.

D) None of the above.

9. What is the output of C Program.?

#include <stdio.h>

int main()

{

    int i = 5, j = 10, k = 15;

    printf("%d ", sizeof(k /= i + j));

    printf("%d", k);

    return 0;

}

a) 3 15

b) 4 14

c) 3 14

**d) 4 15**

10. What is the output of C Program.?

#include <stdio.h>

int main()

{

printf("%d", 1 << 2 + 3 << 4);

return 0;

}

a) 510

b) 511

**c) 512**

d) 513

**MCQ Questions - 2 Marks**

1. What will be output if you will compile and execute the following c code?

#include<stdio.h>

int main()

{

int a=3,b=2,c=4,d=5;

int ans = a\*b+c-d/2;

printf("%d",ans);

return 0;

}

A.6

B.7

C.0

**D.8**

2. What will be output if you will compile and execute the following c code?

#include<stdio.h>

int main(){

int a=2;

if(a==2){

a =a>>1;

printf("%d",a);

}

else{

a =0;

}

return 0;

}

A.0

B.2

**C.1**

D. No Output

3. What will be output if you will compile and execute the following c code?

#include <stdio.h>

int main()

{

printf("%d ", 1);

goto l1;

printf("%d ", 2);

l1:goto l2;

printf("%d ", 3);

l2:printf("%d ", 4);

}

A.1 2

B.3 4

C.2 1

**D.1 4**

4. What will be output if you will compile and execute the following c code?

#include<stdio.h>

int main()

{

int x, y, z;

x = 9;

y = 10;

z = x == y;

printf("%d", ++z);

return 0;

}

A.9

B.10

**C.1**

D.garbage value

5. What will be output if you will compile and execute the following c code?

#include <stdio.h>

int main()

{

int a=8;

switch(a)

{

case 0: printf("0 "); break;

case 3: printf("3 "); break;

case 5: printf("5 ");

default: printf("Go ");

}

a=5;

switch(a)

{

case 0: printf("0 ");break;

case 3: printf("3 ");break;

case 5: printf("5 ");break;

default: printf("Go "); break;

}

return 0;

}

**A.Go 5**

B.5 Go 5

C.Go Go

D.Go Go 5

**Coding Questions - 5 Marks**

**Write a program to print the maximum of two numbers and print “EQUAL” if they are equal.**

#include <stdio.h>

int main(){

int a=0,b=0;

scanf("%d",&a);

scanf("%d",&b);

if(a<b) printf("%d",b);

else if(b<a)printf("%d",a);

else printf("EQUAL");

return 0;

}

**Test Cases:**

| **Test case 1** | **Test case 2** | **Test case 3** | **Test case 4** | **Test case 5** |
| --- | --- | --- | --- | --- |
| **Input**  5  5  **Output**  EQUAL | **Input**  4  3  **Output**  4 | **Input**  7  2  **Output**  7 | **Input**  10001  10001  **Output**  EQUAL | **Input**  101  10001  **Output**  10001 |

**Write a program that takes input of 2 numbers. Consider these as the first two terms and replicate the functioning of Fibonacci series. Print two(2) more terms of the series without using loops.**

#include "stdio.h"

int main(){

int a;

int b;

scanf("%d",&a);

scanf("%d",&b);

printf("%d ",a);

printf("%d ",b);

int c= a+b;

printf("%d ", c);

a=b;

b=c;

c=a+b;

printf("%d ", c);

return 0;

}

**Test Cases:**

| **Test case 1** | **Test case 2** | **Test case 3** | **Test case 4** | **Test case 5** |
| --- | --- | --- | --- | --- |
| **Input**  10  20  **Output**  10 20 30 50 | **Input**  4  5  **Output**  4 5 9 14 | **Input**  7  10  **Output**  7 10 17 27 | **Input**  0  1  **Output**  0 1 1 2 | **Input**  5  15  **Output**  5 15 20 35 |

**Coding Question -10 Marks**

1. **A person ‘A’ has taken a loan from a person ‘B’ at a particular rate of simple interest. He has to pay interest on a yearly basis. Write a program to take input loan amount, rate of interest and no. of years and help ‘A’ to calculate simple interest on loan amount.**

Ans:

#include <stdio.h>

int calSI(float p,float r,float t){

return (p \* t \* r) / 100;

}

int main() {

float p, t, r, SI;

// `p` = principal, `t` = time, and `r` = rate

// `SI` = value of the simple interest

//Simple Interest Formula in :: SI = (P \* T \* R) / 100

printf("Enter the principal (amount), time, and rate::\n");

scanf("%f%f%f", &p, &t, &r);

// It will calculate the value of simple interest

SI = calSI(p,r,t);

// It will produce the final output

printf("\nSimple Interest = %.2f\n", SI);

return 0;

}

| **Test case 1** | **Test case 2** | **Test case 3** |
| --- | --- | --- |
| **Input**  500000  5  18  **Output**  450000.00 | **Input**  400000  3  **15**  **Output**  180000.00 | **Input**  300000  2  12  **Output**  72000.00 |