**C Language Practical Record**

**PRACTICAL RECORD**

**PAPER CODE :**

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**Course : BCA + MCA**

**PRACTICAL DETAILS**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Experiment Name** | **Date of Performance** | **Date of Checking** | **Remarks** |
| 1. | Write a program for multiplication of three numbers. | 24-09-2021 |  |  |
| 2. | Write a program to print the name, enrolment number and course of a student. | 24-09-2021 |  |  |
| 3. | Write a program to print a character. | 24-09-2021 |  |  |
| 4. | Write a program for the addition of two numbers. | 01-10-2021 |  |  |
| 5. | Write a program for the multiplication of two numbers. | 01-10-2021 |  |  |
| 6. | Write a program to check the even or odd of a number. | 01-10-2021 |  |  |
| 7. | Write a program to check if the number is less than 10. | 01-10-2021 |  |  |
| 8. | If-else condition. | 01-10-2021 |  |  |
| 9. | Write a program to calculate discount. | 01-10-2021 |  |  |
| 10. | Write a program to calculate gross salary | 08-10-2021 |  |  |
| 11. | Write a program to check 1 or 2 using if-else nested | 08-10-2021 |  |  |
| 12. | Write a program to find the largest from three numbers given by the user to Explain Nested if-else | 08-10-2021 |  |  |
| 13. | Write a program to check positive negative or zero using if-else | 08-10-2021 |  |  |
| 14. | What will be the output of the following program | 08-10-2021 |  |  |
| 15. | What will be the output of the following program | 08-10-2021 |  |  |
| 16 | What will be the output of the following program | 08-10-2021 |  |  |
| 17. | What will be the output of the following program | 08-10-2021 |  |  |
| 18. | Write a program to calculate bonus | 08-10-2021 |  |  |
| 19. | Write a program to print all natural numbers from 1 to n | 15-10-2021 |  |  |
| 20. | Write a program to print all natural numbers from n to 1 | 15-10-2021 |  |  |
| 21. | Write a program to print all even numbers from 1 to n | 15-10-2021 |  |  |
| 22. | Write a program to print all odd numbers from 1 to n | 15-10-2021 |  |  |
| 23. | Write a program to print a multiplication table of a number | 15-10-2021 |  |  |
| 24. | Write a program to check leap year | 15-10-2021 |  |  |
| 25. | Switch case program | 29-10-2021 |  |  |
| 26. | Switch case program | 29-10-2021 |  |  |
| 27. | Switch case program | 29-10-2021 |  |  |
| 28. | Switch case program | 29-10-2021 |  |  |
| 29. | Switch case program | 29-10-2021 |  |  |
| 30. | Write a menu driven program | 29-10-2021 |  |  |
| 31. | Print pattern using C | 12-11-2021 |  |  |
| 32. | Print pattern using C | 12-11-2021 |  |  |
| 33. | Print pattern using C | 12-11-2021 |  |  |
| 34. | Write a program to print a user defined array | 26-11-2021 |  |  |
| 35. | Write a program to print a array in ascending order | 26-11-2021 |  |  |
| 36. | Write a program to print a array in descending order | 26-11-2021 |  |  |

**1.** Write a program for multiplication of three numbers.

#include <stdio.h>

void main () {

int a, b, c, mult;

printf("enter any three numbers ");

scanf("%d %d %d", &a, &b, &c);

mult = a \* b \* c;

printf("%d \* %d \* %d = %d", a, b, c, mult);

}

Output:



**2.**Write a program to print the name, enrolment number and course of a student.

#include <stdio.h>

void main () {

char name[40], num[20], cor[20];

printf("enter your name ");

scanf("%s", &name);

printf("enter your enrolment number ");

scanf("%s", &num);

printf("enter your course ");

scanf("%s", &cor);

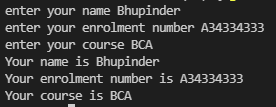
printf("Your name is %s \n", name);

printf("Your enrolment number is %s \n", num);

printf("Your course is %s \n", cor);

}

Output:



3.Write a program to print a character.

#include <stdio.h>

void main () {

char myChar = 'A';

printf("%c", myChar);

}

Output:



4.Write a program for addition of two numbers.

#include <stdio.h>

void main(){

int num1, num2, sum;

printf("Enter two integars: ");

scanf("%d %d", &num1, &num2);

sum = num1 + num2;

printf("%d + %d = %d", num1, num2, sum);

}

Output:



5.Write a program for multipilcation of two numbers.

#include <stdio.h>

void main(){

float a, b, product;

printf("Enter two numbers: ");

scanf("%f %f", &a, &b);

product = a \* b;

printf("Product = %f", product);

}

Output:



6.Write a program to check even or odd of a number.

#include <stdio.h>

void main(){

int num;

printf("Enter an integer: ");

scanf("%d", &num);

if(num % 2 == 0){

printf("%d is even.", num);

}

else{

printf("%d is odd.", num);

}

}

Output:





7.Write a program to check if the number is less than 10.

#include <stdio.h>

void main () {

int num;

printf("Enter a num less than 10 ");

scanf("%d", &num);

if(num < 10){

printf("What an obedient servert you are !");

}

}

Output:



8.If-else condition

#include <stdio.h>

void main () {

int num;

printf("Enter a num less than 10 ");

scanf("%d", &num);

if(num < 10){

printf("What an obedient servert you are !");

}

else{

printf("False");

}

}

Output:





9.Write a program to calculate discount.

#include <stdio.h>

void main(){

int qty, dis = 0;

float price, total;

printf("Enter quantity and price ");

scanf("%d %f", &qty, &price);

if(qty > 1000){

dis = 10;

total = (qty \* price) - (qty \* price) \* dis / 100;

printf("Total expenses = Rs. %f", total);

}

else{

total = qty \* price;

printf("Total expenses = Rs. %f", total);

}

}

Output:





10.Write a program to calculate gross salary.

#include <stdio.h>

void main () {

float bs, gs, da, hra;

printf("Enter basic salary ");

scanf("%f", &bs);

if(bs < 1500){

hra = bs \* 10 / 100;

da = bs \* 90 / 100;

}

else{

hra = 500;

da = bs \* 98 / 100;

}

gs = bs + hra + da;

printf("gross salary = Rs. %f\n", gs);

}

Output:





11. Write a program to check 1 or 2 using if-else nested.

#include <stdio.h>

void main(){

int i;

printf("Enter either 1 or 2 ");

scanf("%d", &i);

if(i==1){

printf("You would go to heaven! \n");

}

else {

if(i==2){

printf("Hell was created with you in mind \n");

}

else{

printf("How about mother earth! \n");

}

}

}

Output:







12. Write a program to find largest from three numbers given by user to Explain Nested if-else

#include <stdio.h>

void main() {

int a, b, c;

printf("Enter any three numbers ");

scanf("%d %d %d", &a, &b, &c);

if(a > b){

if(a > c){

printf("%d is the largest number\n", a);

}

else{

printf("%d is the largest number\n", c);

}

}

else{

if(b > c){

printf("%d is the largest number\n", b);

}

else{

printf("%d is the largest number\n", c);

}

}

}

Output:



13.Write a program to check positive negative or zero using if else

#include <stdio.h>

void main() {

int a;

printf("Enter any number ");

scanf("%d", &a);

if(a > 0){

printf("The number is postive!");

}

else if(a < 0){

printf("The number is negative!");

}

else{

printf("The number is zero!");

}

}

Output:







14. What will be the output of the following program

int main(){

int a = 300, b = 0, c = 0;

if(a >= 400){

b = 300;

}

c = 200;

printf("%d %d\n", b, c);

return 0;

}

Output:



15. What will be the output of the following program

int main(){

int a = 500, b = 0, c = 0;

if(a >= 400){

b = 300;

}

c = 200;

printf("%d %d\n", b, c);

return 0;

}

Output:



16. What will be the output of the following program

void main(){

int x = 3;

float y = 3.0;

if(x == y){

printf("x and y are equal\n");

}

else{

printf("x and y are not equal\n");

}

}

Output:



17. What will be the output of the following program

void main () {

int i = 65, j = 75;

if(i == j){

printf("C is WOW!\n");

}

else{

printf("C is a headache\n");

}

}

Output:



18. Write a program to calculate bonus

void main(){

int bonus, cy, yoj, yos;

printf("enter your current and year of joining ");

scanf("%d %d", &cy, &yoj);

yos = cy - yoj;

if(yos > 3){

bonus = 2500;

printf("Bonus = Rs. %d\n", bonus);

}

}

Output:



19. Write a program to print all natural numbers from 1 to n

void main() {

int n;

printf("Enter any number: ");

scanf("%d", &n);

printf("Natural number from 1 to %d\n", n);

for (int i = 1; i <= n; i++){

printf("%d\n", i);

}

}

Output:

Text

Description automatically generated

20. Write a program to print all natural numbers from 1 to n

void main() {

int n;

printf("Enter any number: ");

scanf("%d", &n);

printf("Natural number from %d to 1\n", n);

for (int i = n; i >= 1; i--){

printf("%d\n", i);

}

}

Output:

Text

Description automatically generated

21. Write a program to print all even numbers from 1 to n

void main() {

int n;

printf("Enter any number: ");

scanf("%d", &n);

printf("all even numbers from 1 to %d\n", n);

for(int i = 1; i<=n; i++){

if(i % 2 == 0){

printf("%d\n", i);

}

}

}

Output:

Text

Description automatically generated

22. Write a program to print all odd numbers from 1 to n

void main() {

int n;

printf("Enter any number: ");

scanf("%d", &n);

printf("all odd numbers from 1 to %d\n", n);

for(int i = 1; i<=n; i++){

if(i % 2 != 0){

printf("%d\n", i);

}

}

}

Output:

Text

Description automatically generated

23. Write a program to print multiplication table of a number

void main() {

int n;

printf("Enter any number: ");

scanf("%d", &n);

for(int i = 1; i <= 10; i++){

printf("%d \* %d = %d\n", n, i, n \* i);

}

}

Output:

Calendar

Description automatically generated

24. Write a program to check leap year

void main() {

int year;

printf("Enter any year: ");

scanf("%d", &year);

if((year % 4 == 0 && year % 100 != 0) || year % 400 == 0){

printf("%d is a leap year", year);

}

else {

printf("%d is a normal year", year);

}

}

Output:





25. Switch case program

void main () {

int suite = 3;

switch (suite)

{

case 1:

printf("Diamond\n");

break;

case 2:

printf("Spade\n");

break;

default:

printf("Heart\n");

break;

}

printf("I thought one wears a suite\n");

}

Output:



26. Switch case program

void main () {

int c = 3;

switch (c)

{

case '3':

printf("You never win the silver prize\n");

break;

case 3:

printf("You always lose the gold prize\n");

break;

default:

printf("Of course provided you win prize\n");

break;

}

}

Output:



27. Switch case program

void main(){

int i = 1;

switch(i){

case 0:

printf("Customers are dicey\n");

case 1 + 0:

printf("Markets are pricey\n");

case 4 / 2:

printf("Investors are moody\n");

case 8 % 5:

printf("At least employees are good\n");

}

}

Output:

Text

Description automatically generated with low confidence

28. Switch case program

void main() {

    int k;

    float j = 2.0;

    switch(k = j + 1){

        case 3:

            printf("Trapped\n");

            break;

        default:

            printf("Caught!\n");

    }

}

Output:



29. Switch case program

void main() {

    int ch = 'a' + 'b';

    switch (ch){

        case 'a':

        case 'b':

            printf("You entered b\n");

        case 'A':

            printf("a as in ashar\n");

        case 'b'+'a':

            printf("You entered a and b\n");

    }

}

Output:



30. Write a menu driven program

void main(){

    int choice, num;

    printf("\n1. Factoiral of a number\n2. Prime or not\n3. Odd or even\n4. Exit\n");

    printf("Enter your choice ");

    scanf("%d", &choice);

    switch (choice){

        case 1:

            printf("Enter the number ");

            scanf("%d", &num);

            int product = 1;

            for (int i = num; i >= 1; i--)

            {

                product \*= i;

            }

            printf("%d\n", product);

            main();

        case 2:

            printf("Enter the number ");

            scanf("%d", &num);

            int isNotPrime = 0;

            for (int i = 2; i < num; i++)

            {

                if(num % i == 0){

                    isNotPrime = 1;

                }

            }

            if(isNotPrime == 0){

                printf("%d is prime", num);

            }

            else{

                printf("%d is not prime", num);

            }

            main();

        case 3:

            printf("Enter the number ");

            scanf("%d", &num);

            if(num % 2 == 0){

                printf("%d is even", num);

            }

            else{

                printf("%d is odd", num);

            }

            main();

        case 4:

            break;

        default:

            printf("Invalid choice try again!");

            main();

    }

}

Output:

Text

Description automatically generated

31. Print pattern using C

void main(){

    for(int i = 0; i<5; i++){

        for(int j=5; j>=1; j--){

            printf("%5d", j);

        }

        printf("\n\n");

    }

}

Output:

A picture containing text, keyboard

Description automatically generated

32. Print pattern using C

void main(){

    for(int i = 1; i<6; i++){

        for(int j=1; j<=i; j++){

            printf("%5d", j);

        }

        printf("\n");

    }

}

Output:

Schematic

Description automatically generated with low confidence

33. Print pattern using C

void main(){

    for(int i = 5; i>=1; i--){

        for(int j=i; j>=1; j--){

            printf("%5d", j);

        }

        printf("\n");

    }

}

Output:

Schematic

Description automatically generated with medium confidence

34. Write a program to print a user defined array

void main (){

    int size = 6;

    int array[6] = {};

    int num;

    for (int i = 0; i < size; i++)

    {

        printf("Enter a number ");

        scanf("%d", &num);

        array[i] = num;

    }

    printf("Enter the 6 element of array are\n");

    for (int i = 0; i < size; i++)

    {

        if(i == 0){

            printf("{");

            printf("%d", array[i]);

        }

        else{

            printf(" %d", array[i]);

        }

        if (i == 5){

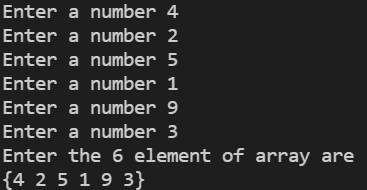
            printf("}");

        }

    }

}

Output



35. Write a program to print a array in ascending order

void main(){

int array[6] = {3, 2, 1, 7, 8, 5};

int a = 0;

int b = 0;

for (int i = 0; i < 5; i+=1)

{

for (int j = i+1; j < 6; j++)

{

a = array[i];

b = array[j];

if(a>b){

array[i] = b;

array[j] = a;

}

}

}

display(array, 6);

}

Output:



36. Write a program to print array in descending order.

void main(){

int array[6] = {3, 2, 1, 7, 8, 5};

int a = 0;

int b = 0;

for (int i = 0; i < 5; i+=1)

{

for (int j = i+1; j < 6; j++)

{

a = array[i];

b = array[j];

if(a<b){

array[i] = b;

array[j] = a;

}

}

}

display(array, 6);

}

Output:

