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main.c

// QUESTION 16

```
1 // Online C compiler to run C program online
2
3 #include <stdio.h>
4 #include <math.h>
5
6 int main() {
7     double initialVelocity = 30.0;
8     double acceleration = 5.0;
9     double distance = 70.0;
10    double finalVelocity;
11    finalVelocity = sqrt(initialVelocity * initialVelocity + 2 * acceleration *
12                          distance);
13
14    printf("The final velocity of the car is %.2lf m/s.\n", finalVelocity);
15
16    return 0;
17 }
18
19
20
21
22
23
24
25
```

Output

/tmp/yf496wzBPu.o
The final velocity of the car is 40.00 m/s.

90°F Sunny Search 34 12:45 PM ENG IN 9/17/2023

A screenshot of a Windows desktop environment. In the center, there is a window titled "main.c" which contains a C program. The code calculates final velocity and distance traveled given initial velocity, acceleration, and time. The output shows the generated executable file and the results of the calculations. The desktop background is light blue with a subtle grid pattern. At the bottom, the taskbar displays various icons for system functions like search, file explorer, and browser, along with the date and time (1:55 PM, 8/17/2023). On the left, a vertical toolbar lists icons for Java, C, C++, JavaScript, Go, PHP, and Python. A weather widget on the taskbar indicates it's 90°F and sunny.

```
main.c // QUESTION 17 I
1 // Online C compiler to run C program online
2
3 int main() {
4     float initialVelocity = 0.0;
5     float acceleration = 4.0;
6     float time = 3.0;
7     float finalVelocity = initialVelocity + (acceleration * time);
8     float distance = (initialVelocity * time) + (0.5 * acceleration * time * time);
9     printf("(a) Final velocity: %.2f m/s\n", finalVelocity);
10    printf("(b) Distance traveled: %.2f meters\n", distance);
11    return 0;
12 }
13
14
15
16
17
18
19
20
21
22
23
24
25
```

Output

```
/tmp/yf496wzBPu.o
(a) Final velocity: 12.00 m/s
(b) Distance traveled: 18.00 meters
```

A screenshot of a computer screen showing a C program being run online. The program calculates the sum of the last four digits of a university roll number.

The code in the editor is:

```
main.c // QUESTION 18
1 // Online C compiler to run C program online
2
3 #include <stdio.h>
4
5 int main() {
6
7     int rollNumber, lastFourDigits, digit, sum = 0;
8     printf("Enter your university roll number: ");
9     scanf("%d", &rollNumber);
10    lastFourDigits = rollNumber % 10000;
11    while (lastFourDigits > 0) {
12        digit = lastFourDigits % 10;
13        sum += digit;
14        lastFourDigits /= 10;
15    }
16
17    printf("The sum of the last four digits of your roll number is: %d\n", sum
18         );
19
20    return 0;
21 }
```

The output window shows the results of running the program:

```
/tmp/yf496wzBPu.o
Enter your university roll number: 15
The sum of the last four digits of your roll number is: 6
```

The system tray at the bottom shows the date (9/17/2023), time (1:59 PM), battery level (90%), and other icons.

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main.c

QUESTION 19

```
1 // QUESTION 19
2
3 // Online C compiler to run C program online
4
5 #include <stdio.h>
6
7 int main() {
8     double heightInCm = 175.0;
9     double weightInKg = 70.0;
10    double cmToInch = 0.393701;
11    double kgToPound = 2.20462;
12    double heightInFeet = heightInCm * cmToInch / 12.0;
13    double weightInPound = weightInKg * kgToPound;
14    printf("Height: %.2lf cm, which is %.2lf feet\n", heightInCm, heightInFeet
15          );
16    printf("Weight: %.2lf kg, which is %.2lf pounds\n", weightInKg,
17           weightInPound);
18
19
20
21
22
23
24 }
```

Output

```
/tmp/yf496wzBPu.o
Height: 175.00 cm, which is 5.74 feet
Weight: 70.00 kg, which is 154.32 pounds
```

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ENGLISH 8/17/2023

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main.c // QUESTION 20

```
1 // QUESTION 20
2
3 // Online C compiler to run C program online
4
5 #include <stdio.h>
6
7 int main() {
8     char option;
9     int sum = 0;
10    float product = 1.0;
11
12    printf("char option");
13    printf ("int sum = 0");
14    printf("\nfloat product = 1.0");
15    return 0;
16 }
```

Output

```
/tmp/yf496wzBPu.o
char option
int sum = 0
float product = 1.0
```

Clear

JS
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C#
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SageMath
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Julia
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SageMath
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Scilab

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Search DELL

ENG IN 2:16 PM 3/17/2023

The screenshot shows a web-based C compiler interface. On the left, there's a sidebar with various programming language icons (C, C++, Java, Python, etc.). The main area has tabs for "main.c" and "QUESTION 21". The code editor contains the following C program:

```
1 // QUESTION 21
2
3 // Online C compiler to run C program online
4
5 #include <stdio.h>
6
7 int main() {
8     int numbers[9];
9     printf("Enter nine integers:\n");
10    for (int i = 0; i < 9; i++) {
11        scanf("%d", &numbers[i]);
12    }
13    for (int i = 0; i < 9; i++) {
14        printf("%d", numbers[i]);
15        if ((i + 1) % 3 == 0) {
16            printf("\n");
17        } else {
18            printf(", ");
19        }
20    }
21
22    return 0;
23 }
```

The "Run" button is highlighted in blue. To the right, the "Output" window shows the program's execution:

```
/tmp/yf496wzBPu.o
Enter nine integers:
77
99
0088
78
9
78
9
09
55
90
77, 99, 88
78, 78, 9
9, 55, 90
```

At the bottom of the screen, there's a taskbar with icons for various applications like File Explorer, Edge, and Task View. The system tray shows the date (9/17/2023), time (2:18 PM), battery level (ENG IN), and weather (90°F Sunny).

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main.c

```
1 // QUESTION 22
2
3 // Online C compiler to run C program online
4
5 #include<stdio.h>
6
7 int main()
8 {
9
10    printf("Header files in C programming are files that contain
11       declarations and definitions needed for a program but are not
12       intended to be compiled on their own.");
13    printf("\nHere are some common uses and characteristics of header files
14       -in C programming: Declaration of Functions and Variables: Function
15          Prototype, Constant Definitions, Data Type Definitions, Preprocessor
16          Directives");
17
18    return 0;
19
20
21 }
```

Run Output

/tmp/yf496wzBPu.o

Header files in C programming are files that contain declarations and definitions needed for a program but are not intended to be compiled on their own. Here are some common uses and characteristics of header files in C programming: Declaration of Functions and Variables: Function Prototype, Constant Definitions, Data Type Definitions, Preprocessor Directives

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2:35 PM 9/17/2023

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main.c

```
1 // QUESTION 23
2
3 // Online C compiler to run C program online
4
5 #include<stdio.h>
6 int main()
7 {
8     int num=070;
9     printf("%d\t%o\t%x",num,num,num);
10    return 0;
11 }
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
```

Output

/tmp/yf496wzBPu.o
56 70 38

Clear

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The screenshot shows a computer monitor displaying a web-based C programming environment. The interface includes a code editor with line numbers, a toolbar with icons for copy, paste, and run, and an output window showing the results of the compiled program. The operating system's taskbar is visible at the bottom, showing various application icons and system status.

The screenshot shows a web-based C compiler interface. On the left, a sidebar lists programming languages: main.c (selected), // QUESTION 24, C, C, C, JS, GO, PHP, and others. The main area contains the following C code:

```
1 // QUESTION 24
2
3 // Online C compiler to run C program online
4
5 #include <stdio.h>
6 void main()
7 {
8     int x = printf("GLA UNIVERSITY");
9     printf("%d", x);
10    return 0;
11 }
```

Below the code editor are several icons: a plus sign, a gear, a magnifying glass, a play button, a refresh button, and a 'Run' button. To the right of the code editor is an 'Output' panel showing the command line output:

```
/tmp/yf496wzBPu.o
GLA UNIVERSITY14
```

At the top of the page, there is a banner for Crowne Plaza Hotels with the text "SPACE DESIGNED TO HELP YOU WORK, REST, AND RECHARGE." and a "BOOK NOW" button. A "C Certification" button is also visible. The bottom of the screen shows the Windows taskbar with various pinned icons and system status indicators.

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main.c

```
1 // QUESTION 25
2
3 // Online C compiler to run C program online
4
5 #include <stdio.h>
6 int main()
7 {
8     printf("Library functions, also known as standard library functions, are
         pre-written functions that are part of the C standard library. These
         functions provide commonly used operations and functionalities,
         allowing programmers to perform various tasks without having to write
         the code for these tasks from scratch.");
9     printf("\n Here are four common library functions in C:printf,scanf,strlen,
       ,sqrt");
10    return 0;
11 }
```

Output

/tmp/yf496wzBPu.o

Library functions, also known as standard library functions, are pre-written functions that are part of the C standard library. These functions provide commonly used operations and functionalities, allowing programmers to perform various tasks without having to write the code for these tasks from scratch.

Here are four common library functions in C:printf,scanf,strlen,sqrt

90°F Sunny 2:52 PM 8/27/2023

The screenshot shows a web-based C compiler interface. The top navigation bar includes tabs for 'Compiler' and 'programiz.com'. A banner for 'CROWN PLAZA HOTELS & RESORTS' is visible above the code editor. The code editor window has tabs for 'main.c' and 'Output'. The 'Output' tab displays the results of running the provided C program, which outputs 'C is placement oriented LanguageHi30 36 1e'. The status bar at the bottom shows system information like battery level, signal strength, and date/time.

```
// QUESTION 26
// Online C compiler to run C program online

#include <stdio.h>
void main()
{
    int x = printf("C is placement oriented Language") - printf("Hi");
    printf("%d %o %x", x,x,x);
}


```

A screenshot of a computer monitor displaying a C program editor and a web browser. The C program editor shows code named 'main.c' with a 'Run' button and an 'Output' panel. The output panel displays the compiled object file path and two explanatory printf statements. The web browser window in the background shows the IBM logo and a tagline: 'A foundation for governed, business-ready data'. A tooltip from the browser provides a detailed explanation of the C code's functionality. The taskbar at the bottom shows various application icons, and the system tray indicates the date and time as 5:01 PM, 24/7/2027.

main.c

```
1 // QUESTION 27
2
3 // Online C compiler to run C program online
4
5 #include <stdio.h>
6 int main()
7 {
8
9 {
10    printf("The given statement reads two integer values from the user and stores them in variables 'a' and 'b'. It then prints the number of successful inputs (usually 2) to the console.");
11    printf("\n In simpler terms, it tells you how many integers you successfully entered when prompted.");
12    return 0;
13 }
```

Output

```
/tmp/gRwG0bHSKE.o
The given statement reads two integer values from the user and stores them in variables 'a' and 'b'. It then prints the number of successful inputs (usually 2) to the console.
In simpler terms, it tells you how many integers you successfully entered when prompted.
```

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5:01 PM 24/7/2027

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main.c

```
1 // QUESTION 29
2 // Online C compiler to run C program online
3
4 #include <stdio.h>
5
6 int main() {
7     double distance, time, speed;
8
9     printf("Enter the distance between GLA University and Delhi ");
10    scanf("%lf", &distance);
11
12    printf("Enter the time taken to reach Delhi by bus ");
13    scanf("%lf", &time);
14
15    speed = distance / time;
16    printf("The speed of the bus is %.2lf km/h\n", speed);
17
18    return 0;
19 }
20
21 }
```

Output

```
/tmp/gRwGObHSKE.o
Enter the distance between GLA University and Delhi 999
Enter the time taken to reach Delhi by bus 242
The speed of the bus is 4.13 km/h
```

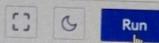
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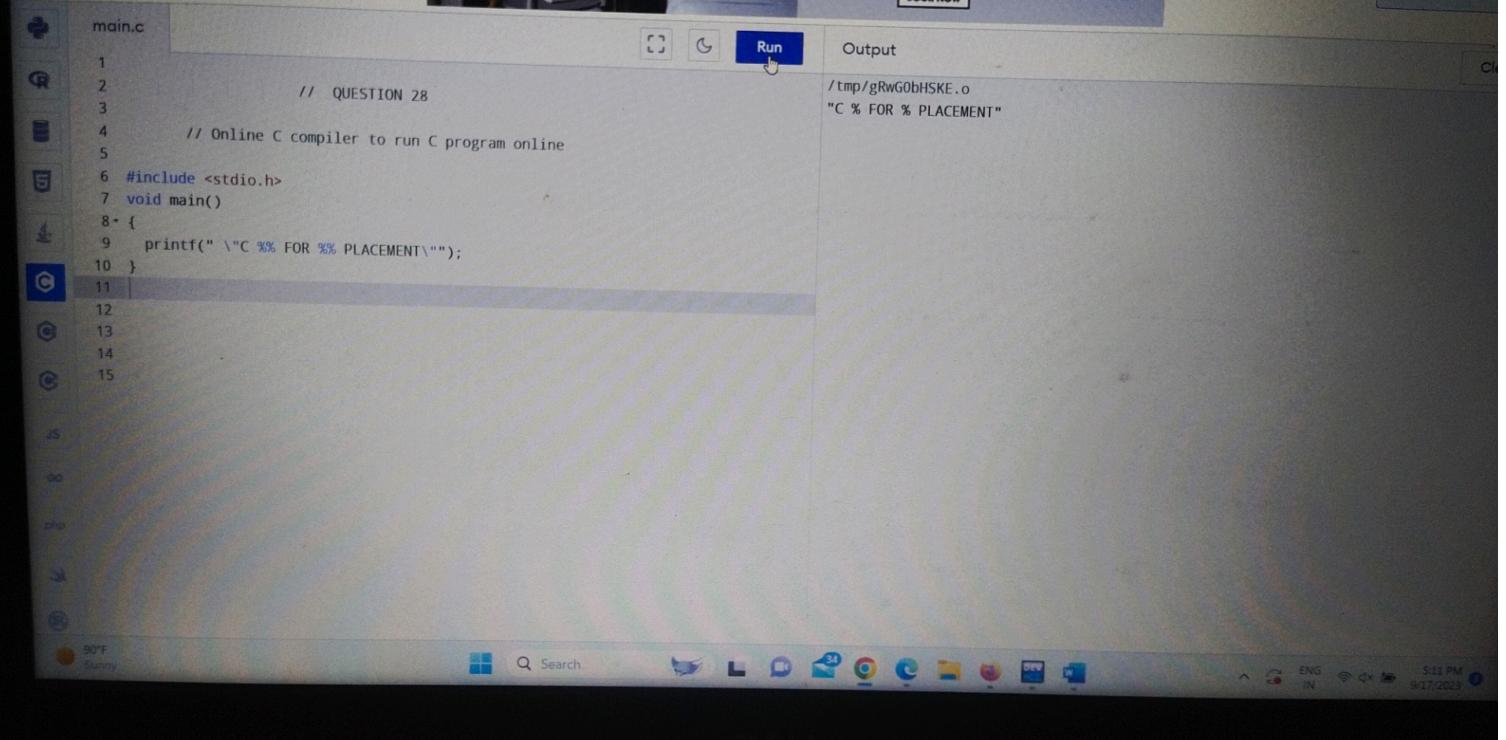
main.c

```
1          // QUESTION 28
2
3
4      // Online C compiler to run C program online
5
6 #include <stdio.h>
7 void main()
8 {
9     printf(" \\"C %% FOR %% PLACEMENT\\\"");
10 }
11
12
13
14
15
```



Output

```
/tmp/gRwGObHSKE.o
"C % FOR % PLACEMENT"
```



main.c

```
1 // QUESTION 30
2 // Online C compiler to run C program online
3
4 #include <stdio.h>
5
6 int main() {
7     int satyamMarks = 50;
8     int sumanMarks = 70;
9     int shyamMarks = 80;
10    int numberOfParticipants = 3;
11    double averageMarks;
12    averageMarks = (satyamMarks + sumanMarks + shyamMarks) / (double
13        )numberOfParticipants;
14    printf("Average marks of Satyam, Suman, and Shyam: %.2f\n", averageMarks);
15
16    return 0;
17 }
18
19
20
21
22
23
```

Run Output

```
/tmp/gRwGObHSKE.o
Average marks of Satyam, Suman, and Shyam: 66.67
```

The screenshot shows a Windows operating system desktop. In the center is a code editor window titled 'main.c'. The code itself is a simple C program that calculates the average of three student marks. The output pane of the editor shows the compiled file path '/tmp/gRwGObHSKE.o' and the resulting output 'Average marks of Satyam, Suman, and Shyam: 66.67'. Below the code editor is a standard Windows taskbar. On the left side of the taskbar, there's a weather widget showing '90°F Sunny'. The taskbar icons include the Start button, a search bar, and links to various Microsoft apps like Mail, Photos, and Edge. On the right side of the taskbar, there are icons for network connectivity, battery status, and the date/time ('5:10 PM 8/17/2023').

COMPUTER

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SECTION - AY

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