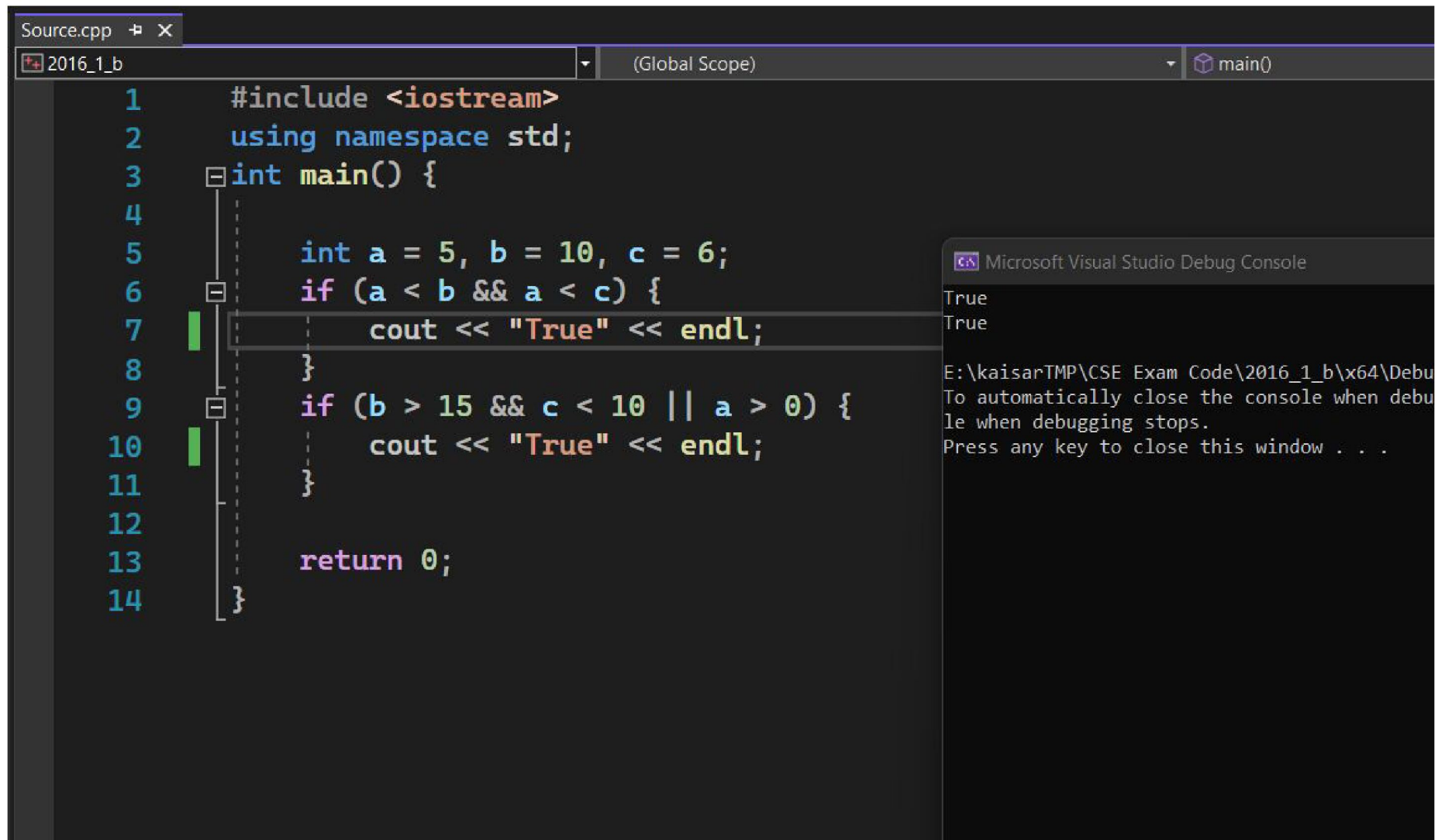


# 2016 - 1 - b



The image shows a screenshot of a C++ program in Visual Studio. The code is in a file named 'Source.cpp' and is titled '2016\_1\_b'. The program is in the 'main()' function of the 'Global Scope'. The code is as follows:

```
1  #include <iostream>
2  using namespace std;
3  int main() {
4      int a = 5, b = 10, c = 6;
5      if (a < b && a < c) {
6          cout << "True" << endl;
7      }
8      if (b > 15 && c < 10 || a > 0) {
9          cout << "True" << endl;
10     }
11     return 0;
12 }
```

The program is being debugged, and the output is shown in the 'Microsoft Visual Studio Debug Console'. The output is:

```
True
True
```

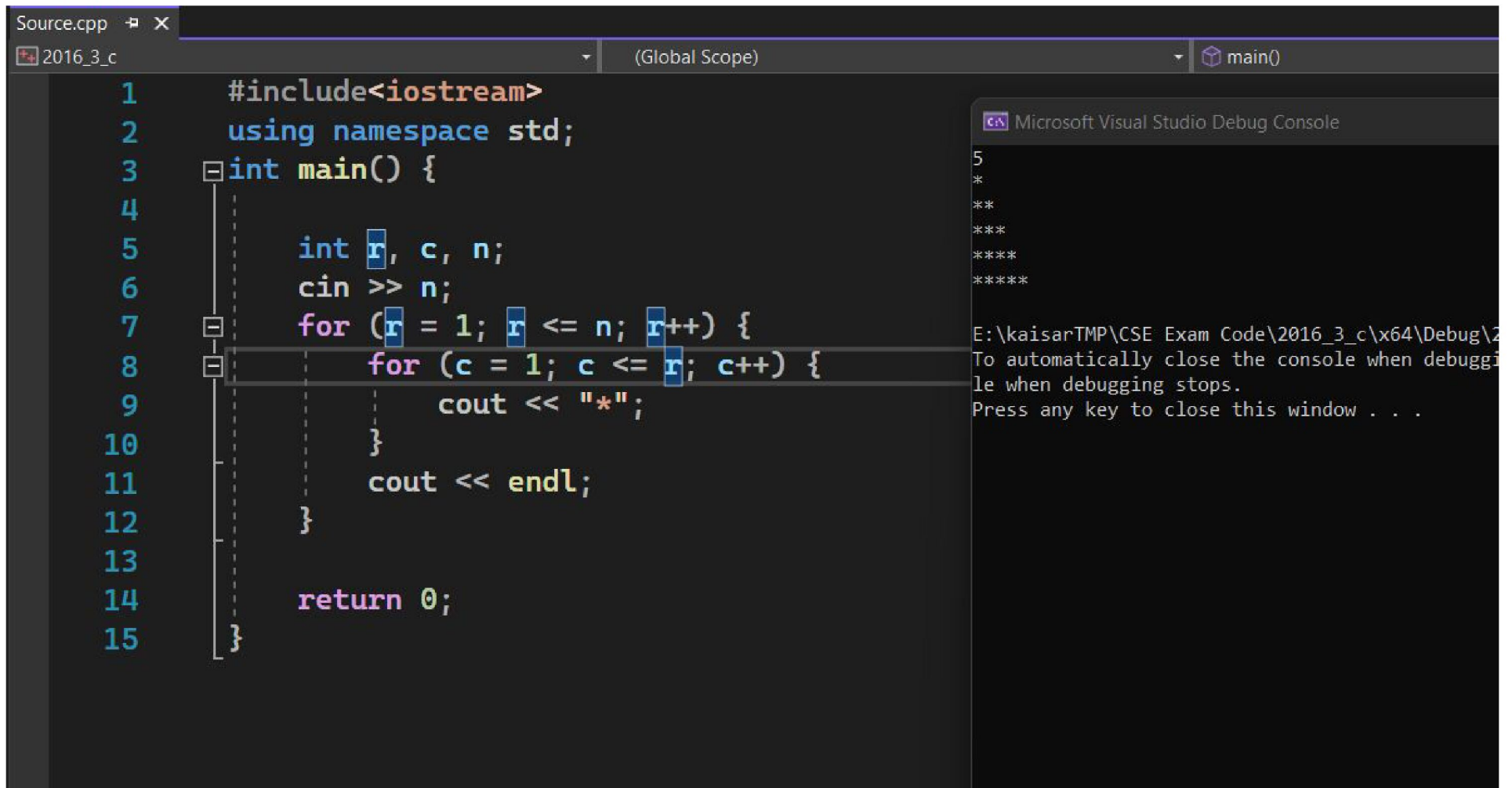
The console also shows the path to the debug console: 'E:\kaisarTMP\CSE Exam Code\2016\_1\_b\x64\Debug'. It also includes instructions: 'To automatically close the console when debugging stops. Press any key to close this window . . .'

# 2016 - 1 - c

```
Source.cpp  X
2016_1_c  (Global Scope)  main()

1  #include<iostream>
2  #include<string>
3  using namespace std;
4  int main() {
5
6      char vowels[10] = { 'a','A','e','E','i','I','o','O','u','U' };
7      string input;
8      cin >> input;
9      for (int i = 0; i <= input.length(); i++) {
10         for (int j = 0; j < 10; j++) {
11             if (input[i] == vowels[j]) {
12                 cout << input[i] << " is a Vowel" << endl;
13             }
14         }
15     }
16
17     return 0;
18 }
```

# 2016 - 3 - c



The image shows a Visual Studio IDE window with a C++ source file named 'Source.cpp' and a debug console. The source code is as follows:

```
1  #include<iostream>
2  using namespace std;
3  int main() {
4
5      int r, c, n;
6      cin >> n;
7      for (r = 1; r <= n; r++) {
8          for (c = 1; c <= r; c++) {
9              cout << "*";
10         }
11         cout << endl;
12     }
13
14     return 0;
15 }
```

The debug console on the right shows the output of the program:

```
Microsoft Visual Studio Debug Console
5
*
**
***
****
*****

E:\kaisarTMP\CSE Exam Code\2016_3_c\x64\Debug\2
To automatically close the console when debuggi
le when debugging stops.
Press any key to close this window . . .
```

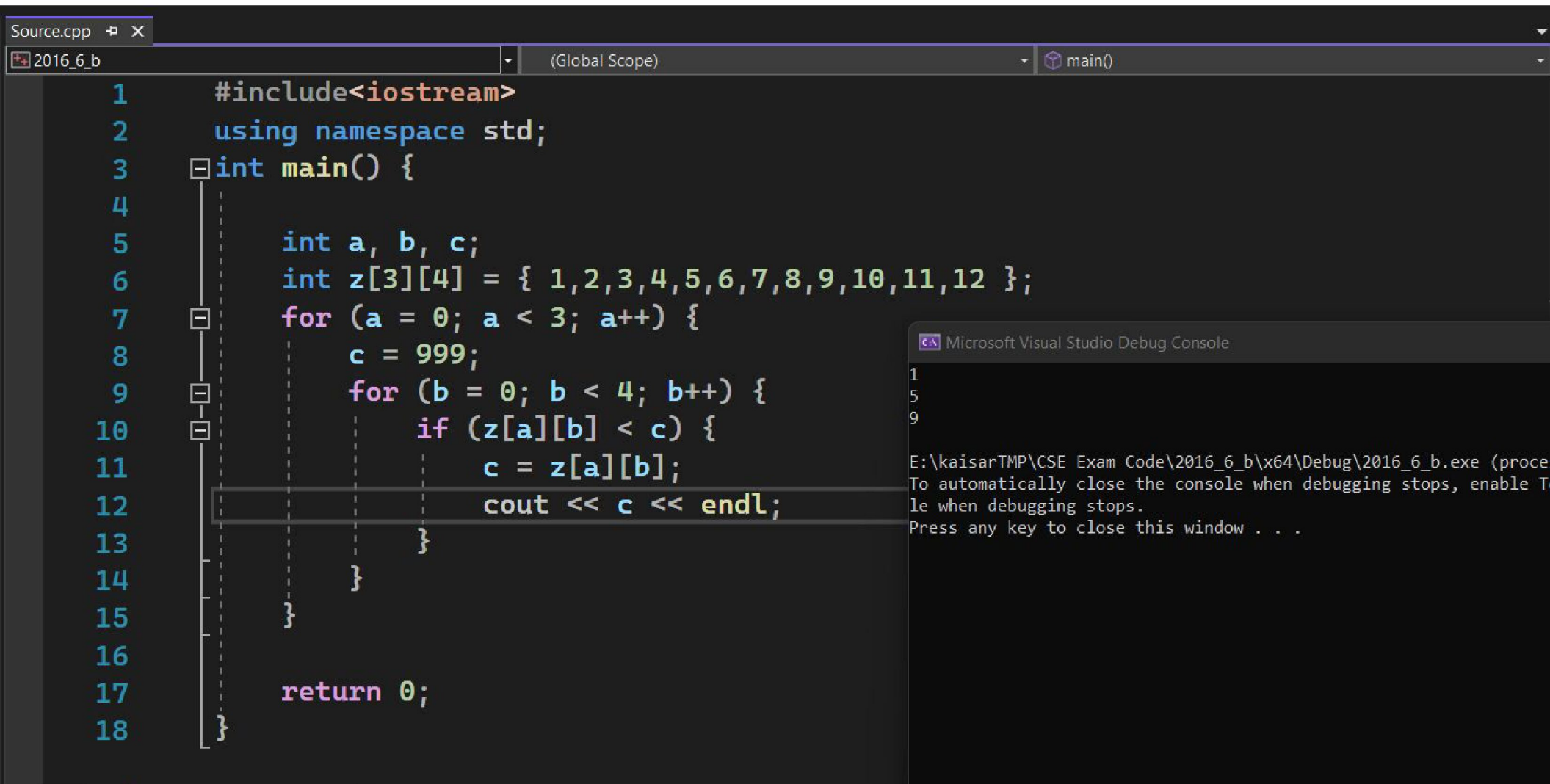
# 2016 - 4 - a

```
Source.cpp  X
2016_4_a  (Global Scope)  main()
1  #include <iostream>
2  using namespace std;
3
4  int addition(int a, int b) {
5      return a + b;
6  }
7
8  int main() {
9
10     int x, y;
11     cout << "Enter X: ";
12     cin >> x;
13     cout << "Enter Y: ";
14     cin >> y;
15     cout << "Result: " << addition(x, y) << endl;
16     return 0;
17 }
```

# 2016 - 5 - b

```
Source.cpp 2016_5_b (Global Scope) main()
1  #include<iostream>
2  using namespace std;
3  struct Cricketers
4  {
5      char name[20];
6      char team[10];
7      double strike_rate;
8  };
9
10 int main() {
11
12     struct Cricketers cck[10];
13     for (int i = 0; i < 10; i++) {
14         cout << "Name of the Player: ";
15         cin >> cck[i].name;
16         cout << "Name of the Team: ";
17         cin >> cck[i].team;
18         cout << "Strike-rate: ";
19         cin >> cck[i].strike_rate;
20     }
21
22     for (int i = 0; i < 10; i++) {
23         cout << "Player name: " << cck[i].name << "\tPlayer's Team: " << cck[i].team << "\tStrike-rate: " << cck[i].strike_rate << endl;
24     }
25
26     return 0;
27 }
```

# 2016 - 6 - b



The image shows a screenshot of a C++ code editor window. The code is a program that iterates over a 3x4 array 'z' and updates a variable 'c' based on its values. The code is as follows:

```
1  #include<iostream>
2  using namespace std;
3  int main() {
4
5      int a, b, c;
6      int z[3][4] = { 1,2,3,4,5,6,7,8,9,10,11,12 };
7      for (a = 0; a < 3; a++) {
8          c = 999;
9          for (b = 0; b < 4; b++) {
10             if (z[a][b] < c) {
11                 c = z[a][b];
12                 cout << c << endl;
13             }
14         }
15     }
16
17     return 0;
18 }
```

The code is displayed in a dark-themed editor with line numbers on the left. A vertical dashed line is positioned at the start of the first for loop. To the right of the code editor, there is a 'Microsoft Visual Studio Debug Console' window. It shows the following text:

```
1
5
9

E:\kaisarTMP\CSE Exam Code\2016_6_b\x64\Debug\2016_6_b.exe (proce
To automatically close the console when debugging stops, enable T
le when debugging stops.
Press any key to close this window . . .
```



# 2016 - 6 - c

```
Source.cpp  X
2016_6_c  (Global Scope)

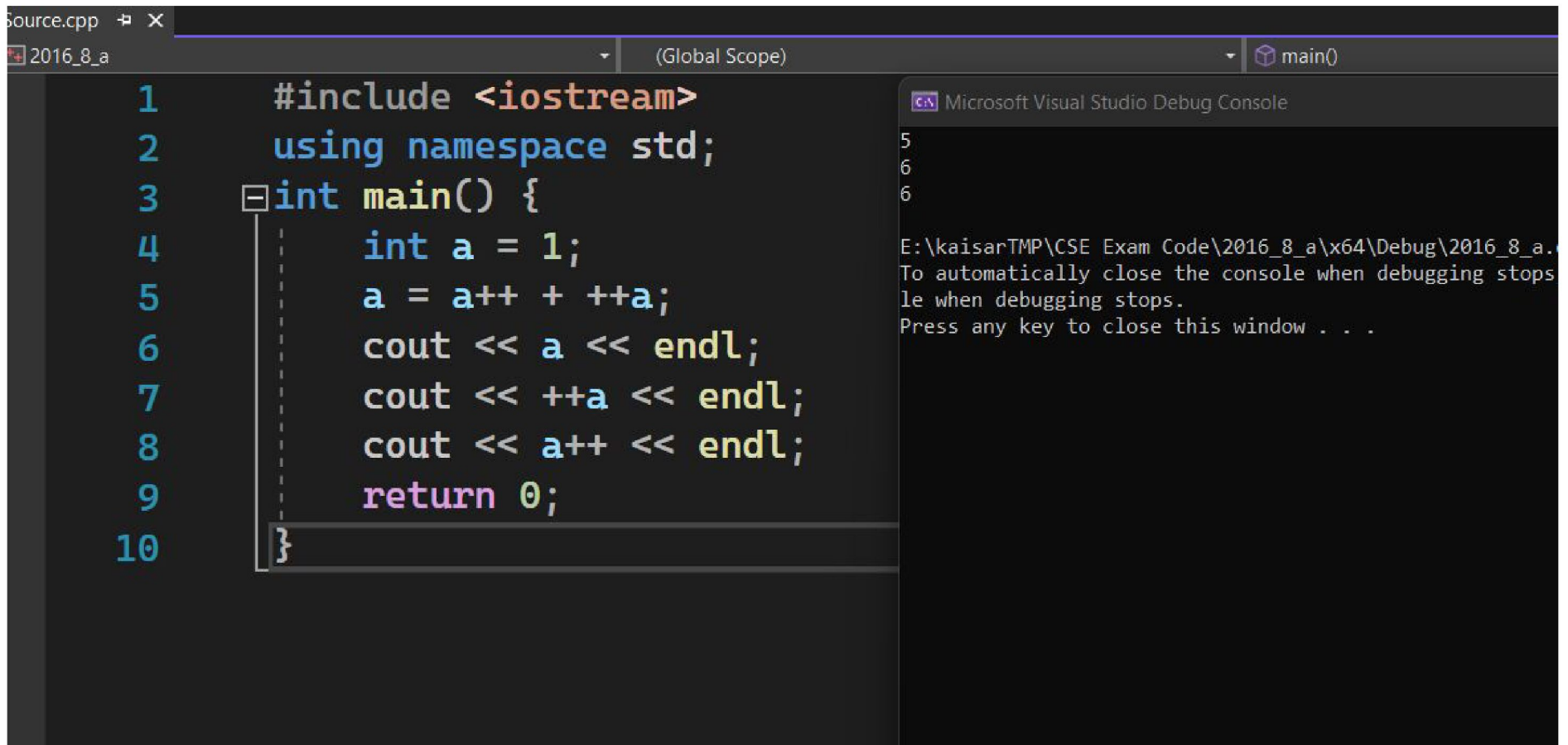
1  #include<iostream>
2  using namespace std;
3  int main()
4  {
5      int i, j, temp;
6      int a[10];
7
8      cout << "Input 10 digit: ";
9
10     for (i = 0; i < 10; i++) {
11         cin >> a[i];
12     }
13
14     cout << endl;
15     for (i = 0; i < 10; i++) {
16         for (j = i + 1; j < 10; j++)
17         {
18             if (a[j] < a[i]) {
19                 temp = a[i];
20                 a[i] = a[j];
21                 a[j] = temp;
22             }
23         }
24     }
25
26     cout << "Sorted Ascended Order Element List ...\n";
27     for (i = 9; i >= 0; i--) {
28         cout << a[i] << " ";
29     }
30     return 0;
31 }
```

# 2016 - 7 - b

```
Source.cpp 2016_7_b (Global Scope) main()
1  #include <iostream>
2  #include <string>
3  using namespace std;
4  int main() {
5
6      string str;
7      int i = 0, alphabet[26] = {0}, j;
8
9      getline(cin, str);
10
11     while (str[i] != '\0') {
12         if (str[i] >= 'a' && str[i] <= 'z' || str[i] >= 'A' && str[i] <= 'Z') {
13             j = tolower(str[i]) - 'a';
14             ++alphabet[j];
15         }
16         ++i;
17     }
18     cout<<"Frequency of all alphabets in the string is:"<<endl;
19     for (i = 0; i < 26; i++)
20         cout<< char(i + 'a') << " : " << alphabet[i] << endl;
21     return 0;
22 }
```



# 2016 - 8 - a



The image shows a screenshot of a C++ development environment. The main window displays a source file named 'Source.cpp' with the following code:

```
1  #include <iostream>
2  using namespace std;
3  int main() {
4      int a = 1;
5      a = a++ + ++a;
6      cout << a << endl;
7      cout << ++a << endl;
8      cout << a++ << endl;
9      return 0;
10 }
```

The code is written in a dark-themed editor. A vertical dashed line is positioned at the start of line 4, and a small square icon is next to line 3. The right side of the image shows the 'Microsoft Visual Studio Debug Console' window, which contains the following text:

```
5
6
6
E:\kaisarTMP\CSE Exam Code\2016_8_a\x64\Debug\2016_8_a.
To automatically close the console when debugging stops
le when debugging stops.
Press any key to close this window . . .
```