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ME15(C)

COMPUTER PROGRAMMING ASSIGNMENT 03

Q#1 write a c++ program to print the total number of population in Punjab, Sindh , KPK, and Baluchistan using a switch case.

INPUT:

```
1 #include<iostream>
2 int main() {
3     char province;
4     int population;
5     std::cout << "Enter the province (P for Punjab, S for Sindh, K for KPK, B for Balochistan): ";
6     std::cin >> province;
7
8     switch (province) {
9         case 'P':
10             population = 120000000; // Replace with the actual population of Punjab
11             break;
12         case 'S':
13             population = 48000000; // Replace with the actual population of Sindh
14             break;
15         case 'K':
16             population = 35000000; // Replace with the actual population of KPK
17             break;
18         case 'B':
19             population = 12000000; // Replace with the actual population of Balochistan
20             break;
21         default:
22             population = 0; // Invalid province code
23     }
24
25     if (population > 0) {
26         std::cout << "Population of the selected province: " << population << std::endl;
27     } else {
28         std::cout << "Invalid province code." << std::endl;
29     }
30
31     return 0;
32 }
```

OUTPUT:

```
Enter the province (P for Punjab, S for Sindh, K for KPK, B for Balochistan): P
Population of the selected province: 120000000

-----
Process exited after 3.847 seconds with return value 0
Press any key to continue . . .
```

Q#2 write a c++ program to check whether an alphabet is a vowel or consonant using a switch case.

INPUT:

```
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      char ch;
6
7      cout << "Enter an alphabet: ";
8      cin >> ch;
9
10     switch (ch) {
11         case 'a':
12         case 'A':
13         case 'e':
14         case 'E':
15         case 'i':
16         case 'I':
17         case 'o':
18         case 'O':
19         case 'u':
20         case 'U':
21             cout << ch << " is a vowel." << endl;
22             break;
23         default:
24             cout << ch << " is a consonant." << endl;
25     }
26
27     return 0;
28 }
```

OUTPUT:

```
Enter an alphabet: C
C is a consonant.

-----
Process exited after 4.87 seconds with return value 0
Press any key to continue . . .
```

Q#3. Write a c++ program to check whether is positive, negative, or zero using switch case.

INPUT:

```
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      int number;
6
7      cout << "Enter a number: ";
8      cin >> number;
9
10     if (number > 0) {
11         cout << "The number is positive." << endl;
12     }
13     else if (number < 0) {
14         cout << "The number is negative." << endl;
15     }
16     else {
17         cout << "The number is zero." << endl;
18     }
19
20     return 0;
21 }
```

OUTPUT:

```
Enter a number: -10
The number is negative.

-----
Process exited after 2.956 seconds with return value 0
Press any key to continue . . .
```

Q#4 Write a c++ to find out whether a person is an adult, teenager or child using nested if-else.

INPUT:

```
1 #include <iostream>
2 using namespace std;
3
4 int main() {
5     int age;
6
7     cout << "Enter the age of the person: ";
8     cin >> age;
9
10    if (age >= 18) {
11        cout << "The person is an adult." << endl;
12    } else {
13        if (age >= 13) {
14            cout << "The person is a teenager." << endl;
15        } else {
16            cout << "The person is a child." << endl;
17        }
18    }
19
20    return 0;
21 }
```

OUTPUT:

```
Enter the age of the person: 13
The person is a teenager.

-----
Process exited after 4.073 seconds with return value 0
Press any key to continue . . .
```

Q#5 Write a c++ program that takes three numbers from the user and finds the greatest number out of the three numbers using nested if-else statements.

INPUT:

```
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      double num1, num2, num3;
6
7      cout << "Enter three numbers: ";
8      cin >> num1 >> num2 >> num3;
9
10     if (num1 >= num2) {
11         if (num1 >= num3) {
12             cout << "The greatest number is: " << num1 << endl;
13         } else {
14             cout << "The greatest number is: " << num3 << endl;
15         }
16     } else {
17         if (num2 >= num3) {
18             cout << "The greatest number is: " << num2 << endl;
19         } else {
20             cout << "The greatest number is: " << num3 << endl;
21         }
22     }
23
24     return 0;
25 }
```

OUTPUT:

```
Enter three numbers: 3 4 15
The greatest number is: 15

-----
Process exited after 9.413 seconds with return value 0
Press any key to continue . . .
```

Q#6. Write a c++ to check whether the alphabet entered by the user is a vowel or a consonant using nested if-else statements.

INPUT:

```
1  #include <iostream>
2  using namespace std;
3
4  int main() {
5      char ch;
6
7      cout << "Enter a single alphabet: ";
8      cin >> ch;
9
10     if ((ch == 'a' || ch == 'A' || ch == 'e' || ch == 'E' || ch == 'i' || ch == 'I' || ch == 'o' || ch == 'O' || ch == 'u' || ch == 'U')) {
11         cout << ch << " is a vowel." << endl;
12     } else if ((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z')) {
13         cout << ch << " is a consonant." << endl;
14     } else {
15         cout << "Invalid input. Please enter a valid alphabet." << endl;
16     }
17
18     return 0;
19 }
20
```

OUTPUT:

```
Enter a single alphabet: F
F is a consonant.

-----
Process exited after 2.285 seconds with return value 0
Press any key to continue . . .
```

The end.....

