

CS-1002: Programming Fundamentals

Serial No:

Sessional Exam-I

Total Time: 1 Hour

Total Marks:

Monday, 26th September, 2022

Course Instructors

Mr. Adil Majeed, Ms. Ayesha, Dr. Hasan Mujtaba

Signature of Invigilator

Student Name

Roll No.

Section

Signature

DO NOT OPEN THE QUESTION BOOK OR START UNTIL INSTRUCTED.

Instructions:

1. Attempt on question paper. Attempt all of them. Read the question carefully, understand the question, and then attempt it.
2. No additional sheet will be provided for rough work. Use the back of the last page for rough work.
3. If you need more space write on the back side of the paper and clearly mark question and part number etc. Write your name at the end of question three for bonus marks.
4. After asked to commence the exam, please verify that you have **Five (5)** different printed pages including this title page. There are a total of **3** questions.
5. Calculator sharing is strictly prohibited.
6. Use permanent ink pens only. Any part done using soft pencil will not be marked and cannot be claimed for rechecking.

	Q-1	Q-2	Q-3	Total
Marks Obtained				
Total Marks	12	8	10	30

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Question 1 [12 Marks]

What is the output for the following code codes in the corresponding output column. If there are any errors, then mention them clearly. Assume that the header files are included in each code's snippet.

	C++ Code	Output
1	<pre>int main(){ int x = 5, y = 30; if(y/x > 2){ if(y % x !=2) x = x + 2; cout<<x<<"\n"<<y;} cout<<x<<y; return 0;}</pre>	
2	<pre>int main(){ int a =8; float b=4.5; a=b+3; cout<< a+b; return 0;}</pre>	
3	<pre>int main(){ int a=6+1, b=0, c=2; a = 3 + (b =5) ; c=c+a*5+(c+17) ; cout<<a<<b<<c; return 0;}</pre>	
4	<pre>int main(){ int n = 10; if(n>0) cout<< "n is positive\n"; if(n>10) cout<<"n is greater than 10"; cout<< " The value of n:"<<n; if(n<100) cout<<"\n n is less than 100"; return 0;}</pre>	
5	<pre>int main(){ int x=2, y=11, z=20; if(x>16 && y>x z%2==0) cout<<"Hello World"; else cout<< "BYE";</pre>	

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6	<pre> int main(){ int a=7,b=6,c=0; switch(0){ case 1: a=6; b=8; cout<<a<<endl; case 0: b=a+c; cout<<b<<endl; default: c=b+3; cout<<c<<endl;} cout<<a<<" "<<b<<" "<<c;} </pre>	
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Question 2 [8 Marks]

Write down the reasons and types of error in the following code. Assume that the header files are included in each code's snippet.

	C++ Code	Error
1	<pre> int main(){ int a, b, mult; cout<< "Enter 1st number"; cin>>a; cout<< "Enter 2nd number; cin>>b; sum = a+b; cout<sum; return 0;} </pre>	
2.	<pre> int main(){ int Ascii_value =20; if(Ascii_value >=0 && Ascii_value>=47 Ascii_value >=54 && Ascii_value <=64) Ascii_value>=91) cout<< " You have entered special character"; return 0;} </pre>	
3.	<pre> int main(){ int n = 9, div = 0; div = n/0; cout << "result = "<< div;} </pre>	
4.	<pre> int main(){ int a, b, c; a + b = c;} </pre>	

Question 3 [10 Marks]

In a couple of months there is the event of 23 March because of Pakistan day. You are wanting to go to see Parade in Islamabad but this place/Park is at an extensive distance so you will check tickets availability on the web. You are required to create a **Ticket Booking System** of Parade where you will enter the hours people will remain there, and the swings children were going to choose.

Furthermore: The ticket rates for Park

- Children under 10 are not permitted to sit on Park
- 10-15(age) wins 10 % OFF
- 15-20 5% OFF

*Above 20 are not allowed

Note: cost of ticket is PKR 10 per hour

The rates for Park swings

- 1-5 (age) wins 50 % OFF
- 5-10 25% OFF

*Above 10 are not allowed

Note: cost of ticket is PKR 10

Program will at that point request to enter age of person and hours will remain in the park. The next part of program will find the total bill based on above requirement and display the total bill.

