**Lab Task-3**

**Instructions: Please read carefully**

* Please rename this file as only your ID number **(e.g. 20-\*\*\*\*\*-3.doc or 20-\*\*\*\*\*-3.pdf).**
* Submit the file before **1 PM on 22/10/2020** in VUES section labeled **Lab task 1. If you cannot complete the full task, do not worry. Just upload what you have completed.**

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| **Question No.1**  Write a program that will take an integer input from the user and determine whether it is odd or even. |
| **Your code here:**  #include<iostream>  using namespace std;  int main()  {  int number, remainder;  cout << "Enter the number : ";  cin >> number;  remainder = number % 2;  if (remainder == 0)  cout << number << " is an even number " << endl;  else  cout << number << " is an odd number ";  } |
| **Your whole Screenshot here: (Console Output):** |

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| **Question No.2**  Write a program that will take input for marks for Physics, Chemistry, Biology and Maths. For each marks the equivalent grade will be shown (A+, A, A- and so on). Use AIUB’s grading policy ( url -https://www.aiub.edu/academics/regulations). |
| **Your code here:**  #include <iostream>  using namespace std;  int main ()  {  float phy, chem, bio, math;  cout<<"Input the mark obtained in Physics: ";  cin>>phy;  {  if (phy >= 90)  cout<<"Grade: A+"<<endl;  else if (phy >= 85)  cout<<"Grade: A"<<endl;  else if (phy >= 80)  cout<<"Grade: B+"<<endl;  else if (phy >= 75)  cout<<"Grade: B"<<endl;  else if (phy >= 70)  cout<<"Grade: C+"<<endl;  else if (phy >= 65)  cout<<"Grade: C"<<endl;  else if (phy>= 60)  cout<<"Grade: D+"<<endl;  else if (phy >= 50)  cout<<"Grade: D"<<endl;  else  cout<<"Grade: F"<<endl;  }  cout<<"Input the mark obtained in Chemistry: ";  cin>>chem;  {  if (chem >= 90)  cout<<"Grade: A+"<<endl;  else if (chem >= 85)  cout<<"Grade: A"<<endl;  else if (chem >= 80)  cout<<"Grade: B+"<<endl;  else if (chem >= 75)  cout<<"Grade: B"<<endl;  else if (chem >= 70)  cout<<"Grade: C+"<<endl;  else if (chem >= 65)  cout<<"Grade: C"<<endl;  else if (chem>= 60)  cout<<"Grade: D+"<<endl;  else if (chem >= 50)  cout<<"Grade: D"<<endl;  else  cout<<"Grade: F"<<endl;  }  cout<<"Input the mark obtained in Biology: ";  cin>>bio;  {  if (bio >= 90)  cout<<"Grade: A+"<<endl;  else if (bio >= 85)  cout<<"Grade: A"<<endl;  else if (bio >= 80)  cout<<"Grade: B+"<<endl;  else if (bio >= 75)  cout<<"Grade: B"<<endl;  else if (bio >= 70)  cout<<"Grade: C+"<<endl;  else if (bio >= 65)  cout<<"Grade: C"<<endl;  else if (bio>= 60)  cout<<"Grade: D+"<<endl;  else if (bio >= 50)  cout<<"Grade: D"<<endl;  else  cout<<"Grade: F"<<endl;  }  cout<<"Input the mark obtained in Math: ";  cin>>math;  {  if (math >= 90)  cout<<"Grade: A+"<<endl;  else if (math >= 85)  cout<<"Grade: A"<<endl;  else if (math >= 80)  cout<<"Grade: B+"<<endl;  else if (math >= 75)  cout<<"Grade: B"<<endl;  else if (math >= 70)  cout<<"Grade: C+"<<endl;  else if (math >= 65)  cout<<"Grade: C"<<endl;  else if (math>= 60)  cout<<"Grade: D+"<<endl;  else if (math >= 50)  cout<<"Grade: D"<<endl;  else  cout<<"Grade: F"<<endl;  }  } |
| **Your whole Screenshot here: (Console Output):** |

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| **Question No.3**  There is a system that takes two inputs and gives the user the following choices-  Press-1 to swap the values  Press-2 to check whether the input values are multiples of 2  Press-3 to represent the two input as a range (first value – second value. If your input is 2 and 10, then the range will be 2 - 10)  Implement this scenario using if()…else if()….else block |
| **Your code here:**  #include <iostream>  using namespace std;  int main ()  {  int x, y, temp, option;  cout<<"Input X: ";  cin>>x;  cout<<"Input y: ";  cin>>y;  cout<<"Select an option"<<endl;  cout<<"Press-1 to swap the values"<<endl;  cout<<"Press-2 to check whether the input values are multiples of 2"<<endl;  cout<<"Press-3 to check the Range of the Values"<<endl;  cout<<": ";  cin>>option;  if (option == 1)  {  temp = x;  x = y;  y = temp;  cout << "After swapping." << endl;  cout << "x = " << x << ", y = " << y << endl;  }  else if (option == 2)  {  if (x % 2 == 0)  cout << "X can be multiples of 2" << endl;  else  cout << "X cannot be multiples of 2" << endl;  if (y % 2 == 0)  cout << "Y can be multiples of 2" << endl;  else  cout << "Y cannot be multiples of 2" << endl;  }  else if (option == 3)  {  cout<<x<<"-"<<y;  }  } |
| **Your whole Screenshot here: (Console Output):** |

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| **Question No.4**  Write a program to check odd or even number  There is a system that presents the user with the following choices  Press-1 to see the syntax of declaring a variable  Press-2 to see the syntax of using an if() block  Press-3 to see how you can print the address of a variable  Press-4 to see the logic that can be used to determine whether a value is odd or even  Implement this scenario using switch()…..case |
| **Your code here:** |
| **Your whole Screenshot here: (Console Output):** |

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| **Question No.5**  If a student wants to get admitted into an University than the following criteria must be met.   1. If the student the is less than 18 years than no admission 2. If the student is 18 years or more than he or she must have 80% marks in Physics and Maths. Otherwise no admission. 3. If all the criteria is met then admission confirmed   Implement a program that will be used for admission using the above conditions |
| **Your code here:**  #include <iostream>  using namespace std;  int main ()  {  float phy;  int age;  cout<<"If your age is less than 18 years than you can't get. Enter your age: ";  cin>>age;  } |
| **Your whole Screenshot here: (Console Output):** |