**Lab Task-5**

**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 **the given time** in VUES section labeled **Lab task 5. 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 demonstrate the work of a pointer |
| **Your code here:**  #include <iostream>  using namespace std;  int main()  {  int var=10;  int \*p;  p = &var;  cout << "Address of pointer p : " << &p << endl;  cout << "Address of variable var : " << &var << endl;  cout << "Address of var using pointer p : " << p << endl;  cout << "Value of var : " << var << endl;  cout << "Value of var using pointer p : " << \*p << endl;  } |
| **Your whole Screenshot here: (Console Output):** |

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| **Question No.2**  Write a program to swap the value of two variables using pointers |
| **Your code here:**  #include <iostream>  using namespace std;  int main()  {  // Write a program to swap the value of two variables using pointers  int x , y, temp;  int \*p;  int \*p2;  x = 10;  y = 20;  cout << "Previous Value of X = " <<x<<endl;  cout << "Previous Value of Y = " <<y<<endl;  p = &x;  p2 = &y;  temp = \*p;  \*p = \*p2;  \*p2 = temp;  cout << "Swapped Value of X = " <<x<<endl;  cout << "Swapped Value of Y = " <<y<<endl;  } |
| **Your whole Screenshot here: (Console Output):** |

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| **Question No.3**  Write a program to print the value of an array in forward and reverse order. |
| **Your code here:**  #include <iostream>  using namespace std;  int main()  {  // Write a program to print the value of an array in forward and reverse order.  int arr[5]={1,2,3,4,5};  for(int i =0; i < 5; i++){  if(i==0){  cout <<"Forward order : " << arr[i] << "-";  }else if (i==4){  cout << arr[i] << endl ;  }else  cout << arr[i] << "-";  }  for(int i =4; i >= 0; i--){  if(i==4){  cout <<"Reverse order : " << arr[i] << "-";  }else if (i==0){  cout << arr[i] ;  }else  cout << arr[i] << "-";  }  } |
| **Your whole Screenshot here: (Console Output):** |

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| **Question No.4**  Take input into an array starting from the last index |
| **Your code here:**  #include <iostream>  using namespace std;  int main()  {  // Take input into an array starting from the last index  int arr[5];  for(int i=4; i>=0; i--){  cout << "input the value of index " << i << " :" ;  cin >> arr[i];  }  for(int i = 0; i<5; i++){  cout << "Value of index " << i << " is : " << arr[i] << endl;  }  } |
| **Your whole Screenshot here: (Console Output):** |

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| **Question No.5**  Write a program that find the odd numbers of an array and find the sum of the even numbers |
| **Your code here:**  #include <iostream>  using namespace std;  int main()  {  //Write a program that find the odd numbers of an array and find the sum of the even numbers  int arr[6]={1,2,3,4,5};  int odd=0,even=0;  for(int i = 0; i<6; i++){  if(arr[i]%2!=0){  cout << "Index [" << i << "] = " << arr[i] << " is an odd number" << endl;  }else  even = even+arr[i];  }  cout << "\nSum of even numbers" << even << endl;  } |
| **Your whole Screenshot here: (Console Output):** |

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| **Question No.6**  Write a program that will find the maximum and minimum values of an array. |
| **Your code here:**  #include <iostream>  using namespace std;  int main()  {  //Write a program that will find the maximum and minimum values of an array.  int arr[6];  int newArr[6];  for(int i = 0; i<6; i++){  cout << "Input index " << i << " :";  cin >> arr[i];  }  for(int i = 0; i<6; i++){  newArr[i]= arr[i];  }  for(int i = 0; i<6; i++){  if(newArr[i]==<arr[i])  }  } |
| **Your whole Screenshot here: (Console Output):** |

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| **Question No.7**  Write a program that will count the number of times a particular number appears in the array. Take the number as an input from the user. |
| **Your code here:** |
| **Your whole Screenshot here: (Console Output):** |

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| **Question No.8**  Use a pointer to access the elements of an array. Then using input from the user change the value of an index as per your wish. |
| **Your code here:** |
| **Your whole Screenshot here: (Console Output):** |

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| **Question No.9**  Use a pointer to change the password of a particular user from the login system program shown in the class. |
| **Your code here:** |
| **Your whole Screenshot here: (Console Output):** |

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| **Question No.10**  Initialize TWO integer arrays of different sizes. Merge the input arrays and create a new array. Then print the new array in reverse order.  For example,  Array\_1 = **{10,20,30,40,50}**  Array\_2 = **{1,2,3,4,5,6,7,8}**  Output: **8 7 6 5 4 3 2 1 50 40 30 20 10** |
| **Your code here:** |
| **Your whole Screenshot here: (Console Output):** |

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| **Question No.10**  Initialize TWO integer arrays of different sizes. Merge the input arrays and create a new array. Then print the new array in reverse order.  For example,  Array\_1 = **{10,20,30,40,50}**  Array\_2 = **{1,2,3,4,5,6,7,8}**  Output: **8 7 6 5 4 3 2 1 50 40 30 20 10** |
| **Your code here:** |
| **Your whole Screenshot here: (Console Output):** |

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| **Question No.11**  Initialize an integer array of size 10. Print the number of time each element occurs in the array.  For example,  Array\_1 = **{8,4,6,1,6,9,6,1,9,8}**  Output:  **8 occurs = 2 times**  **4 occurs = 1 time**  **6 occurs = 3 times**  **1 occurs = 2 times**  **9 occurs = 2 times** |
| **Your code here:** |
| **Your whole Screenshot here: (Console Output):** |

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| **Question No.12**  Take input in an array in such a way, so that there are no duplicate entry. |
| **Your code here:**  //Take input in an array in such a way, so that there are no duplicate entry.  #include <iostream>  using namespace std;  int main()  {  int arr[100];  int j = 0;  int k = 0;  int arrSize;  cout << "Input array size : ";  cin >> arrSize;  cout << "\nInput index values" << endl;  for(int i = 0; i<arrSize; i++){  cout << "Index [" << i << "] : ";  cin >> arr[i];  }  for(int i=0; i<arrSize; i++){  for(j=i+1; j<arrSize; j++){  if(arr[j]==arr[i]){  for(k=j; k<arrSize; k++){  arr[k]=arr[k+1];  }  arrSize--;  j--;  }  }  }  cout << "\nArray values : ";  for(int i=0; i<arrSize; i++){  cout << arr[i] << " ";  }  } |
| **Your whole Screenshot here: (Console Output):** |