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| 7.2)a).Write a program that reads the daily maximum temperatures in 10 cities during the month of January .Then find the city and day corresponding to the highest temperature .  //1803117  #include<stdio.h>  int main()  {  int i,j,c,d;  float a[31][10];  printf("Enter the temperature :\n");  printf("DAY ");  for(i=0; i<10; i++)  {  printf("City%d ",i+1);  }  printf("\n");  for(i=0; i<31; i++)  {  printf("%d ",i+1);  for(j=0; j<10; j++)  {  scanf("%f",&a[i][j]);  }  }  for(i=0; i<31; i++)  {  for(j=0; j<10; j++)  {  if(a[0][0]<a[i][j])  {  a[0][0]=a[i][j];  d=i+1;  c=j+1;  }  }  }  printf("HIGHEST TEMPERATURE IN:\n");  printf("\nDAY :%d CITY num :%d",d,c);  return 0;  } | 7.2)b) . Write a program that reads the daily maximum temperatures in 10 cities during the month of January .Then find the city and day corresponding to the lowest temperature.  //1803117  #include<stdio.h>  int main()  {  int i,j,c,d;  float a[31][10];  printf("Enter the temperature :\n");  printf("DAY ");  for(i=0; i<10; i++)  {  printf("City%d ",i+1);  }  printf("\n");  for(i=0; i<31; i++)  {  printf("%d ",i+1);  for(j=0; j<10; j++)  {  scanf("%f",&a[i][j]);  }  }  for(i=0; i<31; i++)  {  for(j=0; j<10; j++)  {  if(a[0][0]>a[i][j])  {  a[0][0]=a[i][j];  d=i+1;  c=j+1;  }  }  }  printf("LOWEST TEMPERATURE IN:\n");  printf("\nDAY :%d CITY num :%d",d,c);  return 0;  } |

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| 7.3) Write a program that read the ballots and count the votes cast for each candidate using an array variable count .In case , a number read is outside the range 1 to 5 , the ballot should be considered as a spoilt ballot and the program should count the spoilt vote .  //1803117  #include<stdio.h>  int main()  {  int count[1000]={0},i,v,s=0,n;  printf("Enter the total number of public :\n");  scanf("%d",&n);  for(i=0;i<n;i++)  { printf("Public %d\n",i+1);  scanf("%d",&v);  if(v>=1 && v<=5)  {  count[v]++;  }  else if(v>5 || v<1)  {  s=s+1;  }  }  printf("------------------------\n");  printf("\n\n");  for(i=1;i<=5;i++)  {  printf("Candidate %d got = %d vote\n",i,count[i]);  }  printf("Total spoilt vote = %d\n",s);  return 0;  } | 7.4) Write a program to calculate the elements of the Pascal triangle for 10 rows and print the results .  //1803117  #include<stdio.h>  int main()  {  int a[10][100],n,i,j,f;  for(i=0;i<10;i++)  {  for(j=0;j<=i;j++)  {  if(j==0 || j==i)  {  f=1;  a[i][j]=f;  }  else  {  f=f\*(i-j+1)/j;  a[i][j]=f;  }  printf("%d ",a[i][j]);  }  printf("\n");  }  return 0;  } | 7.5)(a) Write a program that reads the results of 100 students for 3 subject and determine the total marks obtained by each student .  //1803117  #include<stdio.h>  int main()  {  int a[100][3],sum[100]={0},i,j;  printf("roll sub1 sub2 sub3\n");  for(i=0;i<100;i++)  { printf("%d ",i+1);  for(j=0;j<3;j++)  {  scanf("%d",&a[i][j]);  sum[i]=sum[i]+a[i][j];  }  }  for(i=0;i<100;i++)  {  printf("roll %d total num = %d\n",i+1,sum[i]);  }  return 0;  } |

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| 7.5) (b) ) Write a program that reads the results of 100 students for 3 subject and determine the highest marks in each subject and the roll no. of the student who secured it .  //1803117  #include<stdio.h>  int main()  {  int a[100][3],i,j,k=1,l=1,m=1;  printf("Roll sub1 sub2 sub3 \n");  for(i=0;i<100;i++)  {printf("%d ",i+1);  for(j=0;j<3;j++)  {  scanf("%d",&a[i][j]);  }  }  for(i=0;i<100;i++)  {  if(a[0][0]<a[i][0])  {  a[0][0]=a[i][0];  k=i+1;  }  if(a[0][1]<a[i][1])  {  a[0][1]=a[i][1];  l=i+1;  }  if(a[0][2]<a[i][2])  {  a[0][2]=a[i][2];  m=i+1;  }  }  printf(" sub1 : mark= %d roll = %d\n sub2 : mark= %d roll = %d\n sub3 : mark= %d roll = %d\n",a[0][0],k,a[0][1],l,a[0][2],m);  } | 7.5 ) (c) ) Write a program that reads the results of 100 students for 3 subject and determine the student who obtain the highest total marks .  //1803117  #include<stdio.h>  int main()  {  int a[5][3],i,j,sum[5]={0},m=1;  printf("Roll sub1 sub2 sub3 \n");  for(i=0; i<5; i++)  { printf("%d ",i+1);  for(j=0; j<3; j++)  {  scanf("%d",&a[i][j]);  sum[i]+=a[i][j];  }  }  for(i=0; i<5; i++)  {  if(sum[0]<sum[i])  {  sum[0]=sum[i];  m=i+1;  }  }  printf("\n Roll No. %d obtained the highest mark = %d \n",m,sum[0]);  return 0;  } | 7.6) Write a program that Reads two one dimensional Array A and B .Then merge them into a single sorted array C that contains every item from arrays A and B , in ascending order .  //1803117  #include<stdio.h>  int main()  {  int a[1000],b[1000],c[2000],i,j,k=0,m,n,t;  printf("Enter the size of Array A and B:\n");  scanf("%d %d",&m,&n);  printf("Enter the elements of ARRAY A :\n");  for(i=0;i<m;i++)  {  scanf("%d",&a[i]);  c[k]=a[i];  k++;  }  printf("Enter the elements of ARRAY B :\n");  for(i=0;i<n;i++)  {  scanf("%d",&b[i]);  c[k]=b[i];  k++;  }  for(i=0;i<k;i++)  {  for(j=i;j<k;j++)  {  if(c[i]>c[j])  {  t=c[i];  c[i]=c[j];  c[j]=t;  }  }  }  printf("ARRAY C:\n");  for(i=0;i<k;i++)  {  printf("%3d",c[i]);  }  return 0;  } |

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| 7.7 ) Write a program that reads the elements of two matrix A and B and produce the product matrix C .  //1803117  #include<stdio.h>  int main()  {  int i,j,k,m,n,o,p;  printf("Enter 1st matrix order : \n");  scanf("%d %d",&m,&n);  printf("Enter 2nd matrix order : \n");  scanf("%d %d",&o,&p);  float a[m][n],b[o][p],c[m][p],sum=0;  if(n==o)  {  printf("This 2 matrix are Multipliable !!\n");  printf("Enter the element of 1st matrix : \n");  for(i=0; i<m; i++)  {  for(j=0; j<n; j++)  {  scanf("%f",&a[i][j]);  }  }  printf("Enter the element of 2nd matrix : \n");  for(i=0; i<o; i++)  {  for(j=0; j<p; j++)  {  scanf("%f",&b[i][j]);  }  }  printf("Multiplication Matrix: \n");  for(i=0; i<m; i++)  {  for(j=0; j<p; j++)  {  sum=0;  for(k=0; k<o; k++)  {  sum=sum+a[i][k]\*b[k][j];  }  c[i][j]=sum;  }  }  for(i=0; i<p; i++)  {  for(j=0; j<p; j++)  { | printf("%.1f ",c[i][j]);  }  printf("\n");  }  }  else  {  printf("This 2 matrix are not Multipliable !!");  }  return 0;  } | 7.13 ) Write a program to read a matrix of size **m** x **n** and print its transpose .  //1803117  #include<stdio.h>  int main()  {  int m,n,i,j;  printf("Enter the order of a matrix : \n");  scanf("%d %d", &m, &n);  int a[m][n],b[n][m];  printf("Enter element of the matrix : \n");  for(i=0;i<m;i++)  {  for(j=0;j<n;j++)  {  scanf("%d",&a[i][j]);  b[j][i]=a[i][j];  }  }  printf("Transposevmatrix is = \n");  for(i=0;i<n;i++)  {  for(j=0;j<m;j++)  {printf("%d ",b[i][j]);}  printf("\n");  }  return 0;  } |