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| **Netaji Subhash Engineering College**  **Department of Computer Science & Engineering**  **B. Tech CSE 2nd Year 3rd Semester**  **2023-2024**  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**Name of the Course: IT Workshop (Python)**  **Course Code: PCC-CS393**  **Name of the Student: ARITTRA BAG**  **Class Roll No.: 103**  **University Roll No.: 10900122105**  **Date of Experiment: 04/08/2023**  **Date of Submission: 11/08/2023**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Assignment No.: A2\_01**  **Problem Statement:**  Write a program to sort three numbers using if-elif-else.  **Python Code:**  a=int(input("Enter 1st No.: "))  b=int(input("Enter 2nd No.: "))  c=int(input("Enter 3rd No.: "))  print("Series in ascending order:")  if a<b and a<c:  if b<c:  print(a,b,c)  else:  print(a,c,b)  elif b<a and b<c:  if a<c:  print(b,a,c)  else:  print(b,c,a)  else:  if b<a:  print(c,b,a)  else:  print(c,a,b)  **Sample Output(s):**  Enter 1st No.: 10  Enter 2nd No.: 90  Enter 3rd No.: 50  Series in ascending order:  10 50 90  **Assignment No.: A2\_02**  **Problem Statement:**  Write a program to calculate simple interest with the following conditions:   * If the principal amount is less than 2,00,000 the interest rate is 10%. * If the principal amount is 2,00,000 -10,00,000 the interest rate is 12%. * If the principal amount is greater than 10,00,000 the interest rate is 15%.   **Python Code:**  p=float(input("Enter Principal:"))  t=float(input("Enter Time:"))  if p<200000:  r=10  si=(p\*r\*t)/100  print("The Simple Interest is:",si)  elif p>200000 and p<1000000:  r=12  si=(p\*r\*t)/100  print("The Simple Interest is:",si)  else:  r=15  si=(p\*r\*t)/100  print("The Simple Interest is:",si)  **Sample Output(s):**  Enter Principal:300000  Enter Time:5  The Simple Interest is: 180000.0  **Assignment No.: A2\_03**  **Problem Statement:**  Write a program to print the following patterns:  a) 1  2 , 3  4, 5, 6  7 , 8, 9, 10  11, 12, 13, 14, 15  b) \* \* \* \* \* \* \* \* \*  \* \* \* \* \* \* \*  \* \* \* \* \*  \* \* \*  \*  **Python Code:**  a) n=int(input("Enter the No. of Rows:"))  c=1  for i in range(n):  for j in range(i):  print(c,end=',')  c=c+1  print(c,"\n")  c+=1  b) num=int(input("Enter the No. of Rows:"))  for i in range(num):  for j in range(i):  print(' ',end=' ')  for j in range(num-i):  print("\*",end=' ')  for j in range(num-i-1):  print("\*",end=' ')  print()  **Sample Output(s):**  a) Enter the No. of Rows:5  1  2,3  4,5,6  7,8,9,10  11,12,13,14,15  b) Enter the No. of Rows:5  \* \* \* \* \* \* \* \* \*  \* \* \* \* \* \* \*  \* \* \* \* \*  \* \* \*  \*  **Assignment No.: A2\_04**  **Problem Statement:**  Write a program using a while loop to print all the odd numbers within a given range.  **Python Code:**  n=int(input("Enter your range:"))  i=0  print("Odd Numbers:")  while i<=n:  if(i%2!=0):  print(i,end=' ')  i+=1  **Sample Output(s):**  Enter your range:10  Odd Numbers:  1 3 5 7 9  **Assignment No.: A2\_05**  **Problem Statement:**  Write a program to compute the GCD of two integer numbers.  **Python Code:**  a=int(int(input("Enter First No.:")))  b=int(int(input("Enter Second No.:")))  if(a<b):  divisor=a  dividend=b  else:  divisor=b  dividend=a  while(divisor>0):  remainder=dividend%divisor  dividend=divisor  divisor=remainder  print("GCD:",dividend)  **Sample Output(s):**  Enter First No.:8  Enter Second No.:4  GCD: 4  **Assignment No.: A2\_06**  **Problem Statement:**  Write a program to print the decimal equivalents of 1/2, 1/3, 1/4,. ........................... , 1/10 using for loop.  **Python Code:**  n=int(input("Enter your no.:"))  for i in range(2,n+1):  print(f"1/{i}=",1/i)  **Sample Output(s):**  Enter your no.:10  1/2= 0.5  1/3= 0.3333333333333333  1/4= 0.25  1/5= 0.2  1/6= 0.16666666666666666  1/7= 0.14285714285714285  1/8= 0.125  1/9= 0.1111111111111111  1/10= 0.1 |