Question 1:inputlist = input('enter elements of a list separated by space: ')userlist=inputlist.split()userlist1=[int(i) for i in userlist]print(userlist1)new = [number\*\*2 for number in userlist1]print(new)

Question 2:title = input("What is the title?")author = input("What is the author?")year = int(input("What is the year?"))bookinfo = (title, author, year)

Question 3:

txt = input("What string do you want to reverse?")

print(txt[::-1])

Question 4:name = input("What is your name?")age = int(input("What is your age?"))print(f"Your name is {name}")print(f"Your age is {age}")

Problem 5:string = input("What is the string?")start = int(input("What is the starting index?"))end = int(input("What is the ending index?"))print(string[start:end])

Problem 6:string = input("Type a string.")N = int(input("Type the number."))string2 = string[N:]print(string2)

Problem 7:Choice = input("Do you want to do degrees to celsius or vice versa?")if Choice == "degrees": Degrees = int(input("How much degrees Farenheit?")) Degrees = (Degrees - 32)\*5/9 print(Degrees)else: Celsius = int(input("How much degrees celsius?")) Celsius = (1.8 \* Celsius) + 32. print(Celsius)

Problem 8:age = int(input("What is your age?"))if age >= 18: print("You are eligible to vote.")else: print("You are not eligible to vote.")

Problem 9:money = int(input("Type how much EUR to USD."))money = (money\*1.088)print(money,"USD")

Problem 10:Dividend = int(input("What number do you want to divide?"))Divisor = int(input("What number do you want to use to divide?"))Dividend = float(Dividend)Divisor = float(Divisor)Answer = Dividend / DivisorNumbers = int(input("What is the decimal place?"))print( "{:.{}f}".format( Answer, Numbers ) )

Problem 11:name = input("Please put the list of names")lst = name.split()lst = sorted(lst)print(lst)

Problem 12:tuple1 = input("What is the first tuple?")tuple2 = input("What is the second tuple?")tuple1 = tuple(tuple1)tuple2 = tuple(tuple2)final = tuple1 + tuple2print(final)

Problem 13:string = input("What is the string you want to see how much vowels are in?")countA = string.count("a")countB = string.count("e")countC = string.count("i")countD = string.count("o")countE = string.count("u")print(f"There are {countA} occurences of a")print(f"{countB} occurences of e")print(f"{countC} occurences of i")print(f"{countD} occurences of o")print(f"{countE} occurences of u")

Problem 14:string = input("What is the string you want to convert to title case?")string = string.title()print(string)

password = input("Enter a password: ")strength = check\_password\_strength(password)print(f"Password strength: {strength}")

Problem 15:def check\_password\_strength(password): length\_okay = len(password) >= 8 contains\_upper = any(c.isupper() for c in password) contains\_lower = any(c.islower() for c in password) contains\_digit = any(c.isdigit() for c in password) contains\_special = any(c in "!@#$%^&\*()-\_=+[]{}|;:'\",.<>?/" for c in password) if length\_okay and contains\_upper and contains\_lower and contains\_digit and contains\_special: return "Strong password" else: return "Weak password"password = input("Enter a password: ")strength = check\_password\_strength(password)print(f"Password strength: {strength}")

Problem 16:string = input("Give a string.")truncating = int(input("How long do you want your string to be?"))print(string[0:truncating])

Problem 17:def compound\_interest(principal, rate, time): Amount = principal \* (pow((1 + rate / 100), time)) CI = Amount - principal print("Compound interest is", CI)principal = int(input("Enter the principal amount: "))rate = int(input("Enter rate of interest: "))time = int(input("Enter time in years: " ))compound\_interest(principal,rate,time)

Problem 18:string = int(input("What is the number?"))Numbers = int(input("What is the decimal place?"))print( "{:.{}f}".format( string, Numbers ) )

Problem 19:start=int(input("What is the starting year?"))end=int(input("What is the ending year?"))years=[]for year in range(start,end+1): if year%400==0: years.append(year) elif year%4==0 and year%100!=0: years.append(year)print(years)

Problem 20:grade = int(input("What is the student's grade?"))grade = float(grade)if grade >= 90: print("A")elif grade <= 89 and grade >= 80: print("B")elif grade <= 79 and grade >= 70: print("C")elif grade <= 69 and grade >= 60: print("D")else: print("F")