CLASSWORK APPLICATIONS FOR FORMATTED I/O AND FILE PROCESSING

Q1. Write a program that reads three integers from a file named as A.DAT. Then write their summation, multiplication and Square root of their square summation to a file named as B.DAT. The files are shown below:

A.DAT

```
11
22
33
```

B.DAT

```
 Sum    Mult         Sqrt(a^2+b^2+c^2)
 ==========================================
  ...   ...           ...
```

2. Write a program to construct length unit conversion Table to a file named as UnConT.txt. The table should appear as shown below: (Hint: 1m ->1/2.54e-2 in; 1m ->1/ 3.048e-1 ft)

UnConT.txt

```
                    Lenght
Lenght in meter     in inch                 in feet
=============================================================
     001            ???.???                 ???.???
     002            ???.???                 ???.???
       .
       .
     010            ???.???                 ???.???
       .
       .
     100            ???.???                 ???.???
```

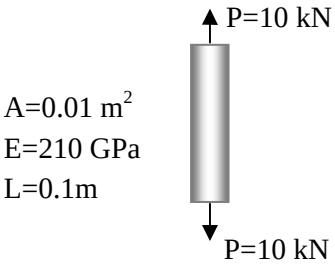
3. Write a program to construct temperature unit conversion Table to a file named as TempConT.txt. The table should appear as shown below:

Hint: F=(9/5)*C+32;

TempConT.txt

```
in Celcius      in Fahrenheit
=============================
     000        ?.??e+???
     005        ?.??e+???
       .
       .
     055        ?.??e+???
       .
       .
     200        ?.??e+???
```

4. Write a program to obtain the load-deflection diagram in a tension test. The load-deflection table should appear as shown below: Hint: Deflection=P L/(A E).



LoadDeflection.txt

```
Load (in kN)  Deflection(in m)
==============================
     00         ?.???e+???
     01         ?.???e+???
       .
       .
     07         ?.???e+???
       .
       .
     10         ?.???e+???
```