**CLASSWORK APPLICATIONS FOR FORMATTED I/O AND FILE PROCESSING**

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

A.TXT

B.TXT

11

22

33

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/ 3.048 ft)

 Lenght

Lenght in meter in inch in feet

 001 ???.??? ???.???

 002 ???.??? ???.???

 .

 .

 010 ???.??? ???.???

 .

 .

 100 ???.??? ???.???

UnConT.txt

**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;

in Celcius in Fahrenheit

 000 ?.??e+???

 005 ?.??e+???

 .

 .

 055 ?.??e+???

 .

 .

 200 ?.??e+???

TempConT.txt

**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

P=10 kN

Load (in kN) Deflection(in m)

 00 ?.???e+???

 01 ?.???e+???

 .

 .

 07 ?.???e+???

 .

 .

 10 ?.???e+???

A=0.01 m2

E=210 GPa

L=0.1m

P=10 kN