**Programming Assignment – I**

**Deadline: 20th Aug’20**

1. Given a DNA sequence in the forward strand,
   1. find the sequence of the reverse strand
   2. the RNA sequence synthesised
   3. the amino acid synthesised

Sample DNA sequence:

gtttcattataccagtttagatctatcgacagggcgttgagtgtgtgcttactcacggct

ggcatgtaggtaacagtagtggggaagcgtaacatctgaggcctgactcacatatagagt

gtcgaccaaggggtgaagcatcatacgccatacaggcccctagcgaaacgacctagtcta

aagacacacgagaatgaaacccgtggacttggttacagcgtaataatctggtcagagctg

gtccggcgctggcgatgtaccttacgccactgcaaaccggctttgcagagaacatctggg

tacattcccgtgtcatgtcaaagcaggtgattcccgcgaaaaacaattaacgacgcattt

gctattgacgaagtcctagttctccgaattgagcgggagacatatgatgtcgagactgca

ggaaccgaattatcctgtccgcagatccaatagctcacagaggtaaggggagtgtgatgg

tgccctagggtgtttgaacg

1. Write a program to generate a restriction map for Wuhan isolate-1 genome (Acc. Id.: NC\_045512) using EcoRI as RE compare your results with REBsites.
2. Write a program to identify restriction recognition sites in a given DNA sequence.