

## **LS2101 Assignments**

### Assignment 1 (maximum one-page writeup, would be graded on 10 marks):

A patient has been diagnosed with a metabolic disorder having elevated levels of phenylalanine and phenylpyruvate in the serum.

- a) What is the metabolic disorder the patient is suffering from?
- b) Explain in brief the possible genetic reason behind the elevated levels of phenylalanine and phenylpyruvate.
- c) Can you use gene editing technique to cure this disease? Explain.

### Assignment 2 (maximum two-page writeup, would be graded on 15 marks):

Write a brief review on electron transport chain and oxidative phosphorylation highlighting the contributions of the following scientists:

Peter D. Mitchell (Nobel Prize winner, 1978); Paul D. Boyer (Nobel Prize winner, 1997); John E. Walker (Nobel Prize winner, 1997)

Both the assignments should be submitted together as a single file (PDF/doc) on or before 30.10.2020. Files will be scrutinized for plagiarism.