

Department of Biochemistry and molecular biology (SUST)

Course No. 323, Course name: Molecular genetics

Term test-2013, Total marks: 10, Time: 1 hrs.

1. a) Discuss the causes of point mutation. 1.5
b) Define the following terms with example: 1+1=2
i) Frameshift mutation, ii) Missense mutation
c) What is mutagen? Write down the names of different mutagenic agents. 0.5+1=1.5
2. a) What is operon? Diagrammatically show the components of *trp* operon. 0.5+1=1.5
b) Write down the function of the following in *lac* operon of *E.coli*. 2
i) Regulator, ii) *lacZ*
c) Discuss that the repressor is controlled by a small molecule inducer. 1.5