

2013

**P.G. Diploma in
Quality Control and Assurance in
Microbial Technology**

PAPER—MT-106A

(PRACTICAL)

Full Marks : 25

Time : 5 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Group—A

[Marks—25]

1. From the supplied protein sequence, answer the following questions :
 - (a) Name which organism does the protein belong ?
 - (b) What is the name and use of the protein ?
 - (c) Write the coding DNA segment of the given protein ?

2+4+4

(Turn Over)

2. (a) Search NCBI database and retrieve a protein sequence of α -amylase in FASTA format.

(b) Perform pairwise alignment of the given data and comment on the result. 5+5
 3. Construct a Phylogenetic tree of the given data and comment on the result. 10
 4. Write a program in BASIC to find the percentage of marks obtained by a student. Let, a student has got some marks in three subjects, viz., Bacteriology, Virology and Bioinformatics. The percentage of total marks is to be computed. The full mark of each subject is 100. 5
 5. Viva-Voce. 5
 6. Practical Note Book. 5
-