

2014

MICROBIOLOGY — HONOURS — PRACTICAL

Seventh Paper

Full Marks – 100

The figures in the margin indicate full marks

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

Unit – I

1. Determine the specific activity of a supplied enzyme (alkaline phosphatase/amylase) solution. Standard graph/chart and the enzyme concentration will be supplied. Represent results in tabular form only. (Describe the experiment as follows : Principle-Results-Conclusion) 30

Or

Determine the pH optima of a supplied enzyme (alkaline phosphatase/amylase). For this experiment, use buffers of at least 5 different pH. Each candidate will prepare one buffer from the supplied materials. Represent results in tabular form only. (Describe the experiment as follows : Principle-Results-Conclusion) 30

Or

Determine the V_{max} and K_M of a supplied enzyme (alkaline phosphatase/amylase). Necessary standard graph/chart will be supplied. Represent results in tabular form only. (Describe the experiment as follows : Principle-Results-Conclusion) 30

2. Examine the effects of a given agent on the supplied enzyme (alkaline phosphatase/amylase). Based on your result(s), comment on the activity of the agent with respect to the activity of enzyme. Represent results in tabular form only. (Describe the experiment as follows : Principle-Results-Conclusion) 20

[Turn Over]

Unit – II

3. Determine the concentration of a protein in a given solution by Lowry method. Use at least 4 different concentrations to prepare the standard graph. Represent results in tabular form only. (Describe the experiment as follows : Principle-Results-Conclusion) 25

Or

Determine the nature of a given nucleic acid solution by examining its denaturation profile. (Describe the experiment as follows : Principle-Results-Conclusion) 25

4. Viva - Voce. 15

5. Laboratory Note - Book. 10