NA–504

Seat No._____

First Year B. Sc. Examination

April/May – 2003

Biotechnology Vocational : Paper – I

Time : **3** Hours] [Total Marks : **70**

Instructions : (1) Question numbers as it is in question paper should be correctly shown in margin.
(2) Marks are designated on the **right** hand side.

1 (a) What is Computer ? Discuss why it is very popular today. **7**

(b) Name five inputmedia and explain their features. **7**

OR

1 (a) What is high level languages, low level languages ? and what is assembly language ? **7**

(b) Explain the features of the first generation of computer. **4**

(c) Explain how computers can be used to control processes in Biotechnology. **3**

2 (a) The following is the results of measurement of suger level among 40 students. Find out the mean and standard deviation of distribution : **6**

Suger level (mg%)	**No. of students**
80–90	1
90–100	3
100–110	5
110–120	25
120–130	3
130–140	1
140–150	1
150–160	1

(b) What is random sampling ? How do you setup a random sample to find out the mean Glucose level in the population of Ahmedabad city. **8**

OR

2 (a) What is biostatastic ? Write a note on its use/Application. **7**

(b) Explain the following : **7**

(a) Mode (b) Median

(c) p^{th} percentile (d) Histogram.

3 (a) Discuss about Enzyme substrate interactions. **7**

(b) Water has high melting point, boiling point and heat of vaporization. How does it help in Biological system ? **7**

OR

3 (a) What are signal molecules ? Discuss hormone as signal molecule. **7**

(b) What are transport proteins ? Discuss the mechanism of transport. **7**

4 (a) Write a note on light reception in human. **7**

(b) Explain with example "Electricity as a potential signal" **7**

OR

4 (a) State and Derive Lambert–Beer's law. Write its limitations. **8**

(b) Write principle and working of a G. M. Counter. **6**

5 Write short notes : (any **three**) **14**

(1) EGC

(2) E.E.G.

(3) ATP cycles

(4) Watson and Crick Model of DNA

(5) Ionisation Chamber.

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