* R B - 3 3 4 1 - 4 2 / 2 0 0 *

RB-3341-42

M. Sc. (Part-II) (Med. Tech.) Examination

April / May – 2010

Instrumentation, Biostatistics & Laboratory Management : Paper - V

Time : **3** Hours] [Total Marks : **52**

RB-3341

Instructions :

(1)

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ **M. Sc. (Part-2) (Med. Tech.)**

Name of the Subject :

☛ **Instru., Biostatistics & Laboratory Management - 5**

☛ Subject Code No. : **3 3 4 1** ☛ Section No. (1, 2,.....) : **Nil**

Seat No. :

Student's Signature

(2) Answer **all** the questions.

(3) Iullstrate your answers with neat diagrams wherever necessary.

(4) Figures to the right indicate full marks.

1 pH meter and its calibration. Measurement of pH using glass electrode. **10**

OR

1 Techniques of Agarose and polyacrylamide electrophoresis.

2 Attempt the following : **2×5=10**

(a) Correlation coefficient.

(b) Immunoelectrophoresis.

OR

2 Attempt the following :

(a) Enzyme electrodes.

(b) Turbidimetry.

3 Describe the principle and components of Atomic absorption sepctrophotometry. **10**

OR

3 Principle and methodology of ion exchange and affinity chromatography. **10**

4 Define Normal Distribution. If the mean of normal population is μ and its variance σ^2, what its mode, median and mention two characteristics of normal distribution. **10**

OR

4 Explain various steps of students t-test for testing null hypothesis that $\bar{x}$, the sample mean is not significantly different from the population mean μ_0.

5 Write short notes on any **three** of the following : **3×4=12**

(a) Data management

(b) Safety measures in laboratory

(c) Workload analysis

(d) Laboratory space management

(e) Budgeting.