AB-3144
B.Sc. (Sem. V) (Microbiology) Examination
March/April – 2015
Instrumentation and Techniques
(CAN Course)

Time : 2 Hours] [Total Marks : 50
Instructions :
(1) Fill up strictly the details of © signs on your answer book.
Name of the Examination : B.Sc. (Sem. V) (Microbiology)
Name of the Subject : Instrumentation and Techniques (CAN Course)
Seat No. :

(2) Figures to the right indicate full marks of the question.
(3) Draw neat and labelled diagrams whenever necessary.

1 Give specific answers :
(a) Give specifications and use of high speed cooling centrifuge ?
(b) What are nebuliser and photosensitive element in flame photometer.
(c) Give two differences between HeIII and Ecorl.
(d) Give principle of cell counting by impedance measurement.
(e) Name the polar and nonpolar groups bonded to silica particles in HPLC.
(f) Give three basic components of electrical balance.

2 Explain/comment on any two of the following :
(a) There are different types of chromatographic techniques based on the type of interaction with the stationary phase.
(b) Quality control in PCR.
(c) There are several advantages of automated instruments in hematology.

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[Contd...
3. Discuss any two of the following:

(a) Describe the factors affecting the migration of charged particles and support media for electrophoresis.

(b) Draw the hypothetical line diagram of working of any one of the fully automated batch analyzer in clinical biochemistry.

(c) Explain the DNA probe methodology and applications of DNA probe.

4. Write short notes on any two of the following:

(a) Function verification and preventive measures of centrifuge

(b) Blotting techniques

(c) HPLC.