Seat No. : _____

MD-109

May-2018

B.Sc., Sem.-IV

CC-204 : Biochemistry (Advance Techniques)

Time : 3 Hours] **[Max. Marks : 70**

1. (a) Write a note on construction, sample preparation and working of SEM. **7**

   (b) Give principle and uses of Dark field microscopy. **7**

   OR

   Write the following : **14**

   (a) Importance of condenser and eye piece of microscope.

   (b) TEM - working and disadvantages

2. Write a note on any **two** of the following : **14**

   (a) Principle and working of differential centrifugation.

   (b) Advantages and disadvantages of Ultracentrifugation.

   (c) Types and uses of Rotors in centrifuge machines.

3. (a) Define radioactivity, give general units use to measure it and list some radioisotopes used in the biological science with its purpose. **7**

   (b) Discuss principle and uses of Autoradiography. **7**

   OR

   (a) Short note on uses of radioactivity.

   (b) Write a short note on types of radioactivity measuring counters.

4. Write a short note on Biostatics tools (components) and its usefulness in biological science. **14**

   OR

   (a) Explain different types of graphical representation of data. **7**

   (b) Explain importance of sample size and sampling methods. **7**

5. Write the following in brief :

(i) Uses of Fix rotors **2**

(ii) Define Magnification with example. **2**

(iii) Find mean of 5,9,5,6,8,6,10,7,11,12 **2**

(iv) Give definition and use of Radioactivity. **2**

(v) Density gradient centrifugation - 2 uses with example. **2**

(vi) Define class length and types of classes. (give example if needed) **2**

(vii) Explain types of Objective lenses. **2**
