

**2014**

**M.Sc.**

**1st Semester Examination**

**BIO-MEDICAL LABORATORY SCIENCE & MANAGEMENT**

**PAPER—BLM-101**

*Full Marks : 40*

*Time : 2 Hours*

*The figures in the right-hand margin indicate full marks.*

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

*Illustrate the answers wherever necessary.*

**Answer Q. No. 1 and any three questions from the following.**

- 1. Answer any ten of the following :** 1×10
- (a) What do you mean by Competitive inhibition in enzyme action ?
  - (b) What do you mean by Km ?
  - (c) Write Beer's Law.
  - (d) Write the name of any one apoptotic marker.
  - (e) What do you mean by W/A % ?
  - (f) Write the range of wave length of U. V. light.
  - (g) Show the location of heart.
  - (h) What do you mean by point mutation by radiation ?
  - (i) What is hypoglycaemic shock ?
  - (j) Write the name of any one marker of cancer.
  - (k) What is Pleura ?
  - (l) Write the names of two non-enzymatic antioxidant.

*(Turn Over)*

- (m) What is chromane ring?
- (n) What is the role of DMT 1?
- (o) What do you mean by resolution of a microscopic device?
2. (a) Write the different features of an apoptotic cell.
- (b) Describe the steps of apoptosome formation.
- (c) State differences between intrinsic and extrinsic pathway of apoptosis. 3+4+3
3. (a) Deduce the M-Measurement in enzyme kinetics.
- (b) 'Km indicates substrate concentration' — explain it from M-M equation.
- (c) What do you mean by straight line equation of M-M equation? 5+2+3
4. (a) Write the Beer-Lambert's law.
- (b) State the limitation of the application of that law.
- (c) What precautions you will follow for the OD measurement using spectrophotometer?
- (d) Write the advantages of spectrophotometer over colorimeter. 2+2+3+3
5. (a) Describe the regulating factors related to iron absorption.
- (b) Why  $Fe^{2+}$  is preferred for transportation of iron and how it is transported and stored? 3+(2+5)
6. (a) Differentiate SEM and TEM with its application.
- (b) Describe how folate- $B_{12}$  shunt is working.
- (c) Describe the parts of nephron. 3+4+3
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