D.K.M.COLLEGE FOR WOMEN (AUTONOMOUS),VELLORE-1

II B.Sc Biochemistry

Semester : IV

Analytical Biochemistry and computer Application

Subject Code : 15CBC4A

SECTION-A 2 Marks

1. Define spectroscopy
2. What is meant by absorption?
3. Define absorption spectrum.
4. Add a note on wavelength and wave number.
5. What is UV region?
6. What is transmittance?
7. What is colorimetry?
8. What are filters?
9. Write the uses of grating.
10. What is fluorescence?
11. What is phosphorescence?
12. Write short notes on fluors.
13. State the application of fluorimetry
14. Describe hollow cathode lamp
15. What are the advantages of atomic absorption spectroscopy?
16. Define radioactive decay.
17. Define radioactivity.
18. What is half life of a radioactive element?
19. What are Isotopes?
20. Name some of commonly used Isotopes in biochemical studies?
21. Differentiate stable and unstable radio Isotopes.
22. Define curie.
23. What is a GM counter?

24. What is scintillation?
25. Add a note in tissue solubiziers?
26. Give the importance of PPO and POPOP.
27. What is radio dating?
28. What is the principle of autoradiography?
29. Define Roentgen, Rad and REM.
30. What is computer?
31. Define memory?
32. Define storage devices?
33. What is input/output devices?
34. Define number system & its types?
35. Expand Ram & Rom?
36. Define ALU?
37. What is the principle of computer?
38. Define computer networks?
39. Explain www?
40. Define windows XP?
41. What is mean by tables?
42. Define fonts?

SECTION-B 5 Marks

1. Briefly describe absorption and emission spectra.
2. Explain molar extinction coefficient.
3. State Beer and Lambert's law.
4. What are the essential components of spectrophotometer.
5. List out the difference between spectrophotometry.
6. Describe colorimetry.
7. Describe briefly spectrofluorimetry.
8. Explain the principle and applications of flame photometry.
9. Explain the types of Burners used in atomic absorption spectroscopy.
10. Differentiate stable and radioactive isotopes.

11. Give the advantage and disadvantage of radio isotopes.
12. Write the uses of gas ionization detectors.
13. Describe GM counter and its applications.
14. Write short notes on scintillation counters and its uses.
15. Explain quenching with reference to measurement of radioactivity.
16. Explain how isotope dilution technique is employed.
17. How is Autoradiography performed?
18. Discuss the use of radio Isotopes as tracers.
19. Discuss the safety aspects of the use of radio isotopes.
20. Discuss the units of radio activity?
21. Explain Radio Immune Assay.
22. What are the types of computer?
23. Explain in short notes on CPU and memory?
24. What are the types of input and output devices? With examples.
25. Explain introduction to computer?
26. Explain in detail about Excel criteria?
27. Explain about mail merge?
28. What is mean by graphs explain it.
29. Who to create a document and templates?
30. Explain in detail about WWW and its uses?

SECTION-C 10 Marks

1. Describe the construction of a spectrophotometer and discuss its uses in Biochemistry.
2. Elaborate the principle, application and advantage of UV visible spectrophotometry.
3. Elaborate how the enzymes are assayed spectrophotometrically?
4. Give an account of the principle and instrumentation of spectrofluorimetry.
5. How is the method useful in determining the content of vitamin B1 and B2?

6. Give the principle and application of Atomic absorption spectroscopy.
7. Describe different types of radiation and their properties.
8. What are the safety measurements to be followed while handling a radioactive material?
9. Discuss various biochemical applications of radioisotopes?
10. Explain (i) GM counter (5) (ii)Units of Radio activity (5)
11. Explain (i) Isotope dilution techniques.(5) (ii)Autoradiography (5)
12. Explain the biological hazards of radiation and safety measures in handling radio Isotopes.
13. Explain in detail about classification of digital computer system?
14. Explain in detail about characteristic of computer?
15. Explain in detail about memory units?
16. Explain in detail about high-level languages?
17. Explain in detail about windows 98 and XP features.
18. Explain in detail about computer network? With examples.
19. Explain in detail about electronic mail and internets?