



Q.1. Give short answers of the following: (15x2=30)

1. What is meant by quality control charts?
2. What is the difference between precision and accuracy?
3. 2g NaCl is dissolved in 20g water, find percentage of solution.
4. What is the difference between molarity and molality?
5. What are the limitations of Q-Test?
6. What is retention factor? Write down its formula.
7. What do you know about two dimensional paper chromatography?
8. What type of adsorbents are used in column chromatography?
9. What do you know about “activation” of TLC plates?
10. What is the difference between adsorption and partition chromatography?
11. What is Beer-Lambert’s law?
12. Why is monochromator important in UV spectroscopy?
13. What are the advantages of double beam spectrophotometer over single beam spectrophotometer?
14. What is the basic principle of UV/Vis Spectroscopy?
15. What is bathochromic shift?

Q.2. Give brief answers of the followings. (3x10=30)

1. a) Explain student t-Test.
b) What is the difference between systematic and random errors? Explain with examples.
2. a) Write down the methods of detection of spots in Thin layer chromatography.
b) Explain various factors affecting Rf value in paper chromatography.
3. a) Discuss the working of photomultiplier tube.
b) Discuss chemical deviation from Beer Lambert Law.