

Answer Key

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

Test 1- Examination 2016

B.Pharm VIIIth Semester

COURSE CODE: 12B1WPY835

MAX. MARKS: 15

COURSE NAME: Analytical Techniques

COURSE CREDITS: 3

MAX. TIME: 1 HR

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

- Q.1. How does partition chromatography differ from adsorption chromatography? 1
- Q.2. Why is the relative standard deviation considered a popular and practical expression of data quality? 1
- Q.3. Define analytical science, analysis, chemical analysis, analyte, matrix, and assay. 1
- Q.4. Define recrystallization, distillation, fractional distillation, extraction, liquid-liquid extraction, solvent extraction, countercurrent distribution, liquid-solid extraction, and chromatography. 2
- Q.5. What sort of things do the GLP regulations address? 1
- Q.6. Distinguish clearly between accuracy and precision. 1
- Q.7. Why are sampling and sample preparation procedures as crucial to the success of an analysis as the analytical method chosen? 2
- Q.8. Why is it important for a sample to be homogeneous before it is divided to create the test sample? 1
- Q.9. How important is the label on a sample or reagent? What information should appear on the label of a sample to be analyzed? What information should appear in the notebook record? 1
- Q.10. In recrystallization, how is it that both soluble and insoluble impurities are removed from the solid being purified? 1
- Q.11. Distinguish between qualitative analysis and quantitative analysis. Give examples 1
- Q.12. Consider a mixture of compound A, a somewhat nonpolar liquid, and compound B, a somewhat polar liquid. Tell which liquid, A or B, would emerge from a chromatography column first under the following conditions and why: 2
- (a) A polar liquid mobile phase and a nonpolar liquid stationary phase
- (b) A nonpolar liquid mobile phase and a polar liquid stationary phase