

**C. ABDUL HAKEEM COLLEGE (AUTONOMOUS),  
MELVISHARAM - 632 509.  
SEMESTER EXAMINATIONS, NOVEMBER - 2018**

**B.Sc., CHEMISTRY** **SEMESTER V**  
**U15SCH501 - DATA ANALYSIS AND SEPARATION TECHNIQUE**  
**(SBS – III)**

Time: Three Hours

Maximum: 60 Marks

**SECTION - A (10 X 1 = 10 Marks)**

Answer **ALL** Questions.

1. Define the term precision.
2. What is called confidence limit?
3. Give the principle of Sublimation.
4. Write the principle of Fractional distillation.
5. Define Rf value.
6. State any two applications of Ion exchange chromatography.
7. Write the principle of Gas Chromatography.
8. Give any two applications of LC-MS.
9. What are the types of computer?
10. Define the term identifiers.

**SECTION - B (5 X 4 = 20 Marks)**

Answer **ALL** Questions.

11. a) How are significant figures useful in analytical chemical data?  
(Or)

b) Find the standard deviation for a subset having the following six values.  
7.720, 7.725, 7.736, 7.719, 7.742 and 7.751.

12. a) Give an account of Crystallization and Fractional crystallization.

(Or)

b) Write notes on Steam distillation.

13. a) Explain the experimental technique of Paper Chromatography.

(Or)

b) Discuss about briefly Ion exchange Chromatography with suitable example.

14. a) Draw a block diagram and explain about HPLC.

(Or)

b) Explain the principle and instrumentation of LC-MS.

15. a) Describe the block diagram of a computer.

(Or)

b) Write notes on data types.

**SECTION - C (3 X10 = 30 Marks)**

Answer **ANY THREE** Questions.

16. Write notes on (i) Accuracy with suitable example.  
(ii) Minimization of errors.

17. Discuss about purification of Organic compounds by Soxhlet extraction.

18. Explain the following techniques, (i) Column Chromatography  
(ii) Thin Layer Chromatography.

19. List out the applications of HPLC and GCMS.

20. (i) Mention the characteristics of a computer.

(ii) Explain about Variables and Keywords with suitable example.

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