



[Time: 3 Hours]

[Max. Marks: 100]

MODERN PHARMACEUTICAL ANALYSIS

(RS 2 & RS 3)

Q.P. CODE: 9201

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary. Answer all questions

LONG ESSAY (Answer any TWO)

2 X 20 = 40 Marks

1. Define chromatography and classify chromatographic methods on mechanism of separation with applications. Write a note on TLC preparation techniques, mobile phase, selection and detection methods.
2. What is the principle involved in IR spectroscopy and give a brief outline of classical IR instrumentation. Write a note on sample handling in IR spectroscopy. Add a note on qualitative interpretation of IR spectra.
3. Explain the phenomenon of optical rotation and circular dichroism. Giving a schematic diagram, write about an ORD instrument. What are the application of ORD and CD?

SHORT ESSAY (Answer any FIVE)

5 X 10 = 50 Marks

4. Define octant rule and its application with examples.
5. Discuss the application of signal split and coupling constant data to interpretation pmr spectra?
6. Explain in brief about various detectors in gas chromatography.
7. Write about chemical ionization mass spectrometry. Add a note on relative abundances of isotopes and their contribution to characteristic peaks?
8. Write about moving boundary electrophoresis and its applications
9. Give a note on zone electrophoresis and isotachopheresis?

SHORT NOTES

2 X 5 = 10 Marks

10. Woodward's rule.
11. Shifts in uv spectra

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