Rajiv Gandhi University of Health Sciences

First Year M. Pharm Degree Examination – MAY-2018

[Time: 3 Hours] [Max. Marks: 100]

MODERN PHARMACEUTICAL ANALYSIS

(RS2 & RS3)

Q.P. CODE: 9201

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

LONG ESSAY (Answer any TWO) **2 X 20 = 40 Marks**

1. Define Beer's-Lambert's law. Add a note on limitations of beers law. Explain in detail instrumentation of UV-Visible spectrophotometer.
2. Explain the principle involved in chemical ionization, FAB and Field ionization techniques. Write its merit and demerits. Explain the working of Quadrupole and Ion-trap mass analyser
3. Explain about the different derivatizations and detectors used in Gas Chromatography.

SHORT ESSAY (Answer any FIVE) **5 X 10 = 50 Marks**

4. What are the different vibrational modes of polyatomic molecules upon IR absorption? Write in brief on the various detectors used in IR Spectroscopy.
5. Explain the cotton effect curve. Explain in brief of octant rule and its applications.
6. Explain different regions in IR Spectroscopy and also discuss about detectors used.
7. What is chemical shift? Explain with examples different factors influencing chemical shift.
8. Write the principle involved in paper chromatography. Explain the various methods of preparation of TLC plates.
9. Define Electrophoresis. Write the principle of Electrophoresis for separation of molecular mixture.

SHORT NOTES **2 X 5 = 10 Marks**

10. Write the applications of x-ray diffraction methods.
11. Explain briefly about the importance of statistical analysis.

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