

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. Explain in detail how residual pesticides can be quantitated by mass spectrometry
2. Explain the principle & the methodology involved in the biological assay of
a) Heparin sodium b) Rabies vaccine
3. Explain the methodology & instrumentation involved in the differential scanning calorimetric analysis. Give its important applications in pharmacy

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

4. Give the importance of radiopharmaceuticals with suitable examples
5. Explain the pyrogen test I.P
6. Explain clearly how a UV-VIS spectrophotometer can be validated
7. Give the importance of standard deviation (SD) & relative standard deviation (RSD)
8. Give the microbial assay of any vitamin you have studied
9. Explain how oxytocin is assayed biologically

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

10. Parameters governing the performance of a UV-detector in HPLC
11. Importance of slit-width in UV-spectrophotometer

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