

**Rajiv Gandhi University of Health Sciences**  
**First Year M. Pharm Degree Examination – May 2013**

[Time: 3 Hours]

[Max. Marks: 100]

**ADVANCED PHARMACEUTICAL ANALYSIS**

**PAPER IV**

**(RS 2 & RS 3)**

**Q.P. CODE: 9294**

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 the theory and methodology involved in Radioimmuno assays and give two specific applications
2. Discuss sterility testing methodology and interpretation of results
3. Write the principles and procedures involved in the biological assay of the following:
  - a) Heparin sodium
  - b) Tetanus antitoxin

**SHORT ESSAY (Answer any FIVE)**

**5 X 10 = 50 Marks**

4. How do you assay the effectiveness of antimicrobial preservatives
5. Describe the concepts and methodology of Enzyme immuno-assays
6. Write in detail the production, chemistry and properties of bacterial pyrogens and endotoxins
7. Write the principle and procedure involved in biological assay of Oxytocin
8. Describe the microbial assay of specific antibiotic you have studied
9. Write briefly the principles and factors affecting thermogravimetric analysis

**SHORT NOTES**

**2 X 5 = 10 Marks**

10. Write a short account of the analytical method validation parameters used in HPLC
11. What are the microbial limits specified by World Health Organization in crude drugs? How do you determine the microbial content?

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