

[Total No. of Questions - 10] [Total No. of Printed Pages - 2]  
(2123)

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**M. Pharmacy 1st Semester Examination**  
**Pharmaceutical Cosmetics & Herbal Drug Analysis**  
**MP-311**

**Time : 3 Hours**

**Max. Marks : 90**

*The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.*

- Note :** (i) The question paper contains ten questions in three sections A, B & C.  
(ii) Attempt any two questions from section A  
(iii) Attempt any five questions from each section B & C.

**SECTION - A**

*Attempt any two questions and each question carry equal marks.*

1. What do you understand by titrimetric analysis? Discuss the redox titrations.
2. Discuss the note on quality control of lipstics, skin care products and dental products.
3. Write a brief note on quality control of crude drugs. **(2×15=30)**

**SECTION - B**

*Attempt any five questions and each question carry equal marks.*

4. Discuss the complexometric titrations.
5. Discuss the principle and pharmaceutical applications of potentiometry.

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6. Write a note on non-aqueous titrations.
7. Write a brief note on gravimetric analysis.
8. Discuss the identification and quantitative determination of emulsifiers and stabilizers in pharmaceutical formulations.
9. Write a brief note on polarography. **(5×8=40)**

### SECTION - C

*Attempt any five questions and each question carry equal marks.*

10. Write short note on any *five* of the followings:
  - (a) Diazotization titrations.
  - (b) Quality control of containers and closers.
  - (c) Thermogravimetric analysis.
  - (d) Quantitative microscopic methods of quality control of crude drugs.
  - (e) Safety and legislation for cosmetic products.
  - (f) Argentometric titrations.
  - (g) Acid base indicators. **(5×4=20)**