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# M. Pharmacy 1st Semester Examination Pharmaceutical, Cosmetic and Herbal Drug Analysis MP-311

Time: 3 Hours Max. Marks: 90

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

**Note :** (i) Answer one question out of two questions carrying twenty five marks. (Section A)

- (ii) Answer three questions out of four questions carrying ten marks. (Section B)
- (iii) Answer seven questions out of nine questions carrying five marks. (Section C)

## **SECTION - A**

- Discuss quality control techniques for herbal drugs under following heads.
  - (i) Factors affecting herb quality.
  - (ii) Development of standardization parameters. (25)
- Discuss extraction methods for herbal drugs and different chromatographic techniques for separation and identification of active constituents. (25)

## **SECTION - B**

3. Discuss parameters for quality control of tablets and capsules. (10)

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- 4. Write an exhaustive note on identification & quantitative determination of preservatives and antioxidants. (10)
- 5. Discuss quality control parameters for hair care products and color cosmetics. (10)
- 6. Write a detailed note on safety and legislations for cosmetic products. (10)

# SECTION - C

- 7. How will you carry out non-aqueous titration of halogenated salts of bases? (5)
- 8. Explain how will you detect end point in different types of redox titrations. (5)
- 9. Classify reactions in titrimetric analysis. (5)
- Write procedure for preparations of standard solutions of iodine and potassium permanganate. (5)
- 11. Discuss different types of titrations in complexometry. (5)
- 12. In complexometry what are masking and demasking agents?
  Explain their role. (5)
- How will you prepare standard solution of sodium nitrite?
   Discuss assay of any drug of your choice by diazotization method.
- Write a note on simple polarography and classical d.c. polarography.
- 15. Explain static and dynamic thermogravimetry & methodology involving thermogram. (5)