

# GUJARAT TECHNOLOGICAL UNIVERSITY

B.Pharm  
SEMESTER: IV

**Subject Name: Dispensing Pharmacy II and Pharma Industrial Management**  
**Subject Code: 2240002**

| Teaching Scheme |          |           |       | Evaluation Scheme |          |           |          |
|-----------------|----------|-----------|-------|-------------------|----------|-----------|----------|
| Theory          | Tutorial | Practical | Total | Theory            |          | Practical |          |
|                 |          |           |       | External          | Internal | External  | Internal |
| 3               | 0        | 3         | 6     | 80                | 20       | 80        | 20       |

## Theory

| Sr No                               | Course Contents   | Total Hrs |
|-------------------------------------|---|-----------|
| 1                                   | <b>Principles involved and procedures adopted in dispensing of</b> <ul style="list-style-type: none"><li>Semisolid Products – Ointment, Creams, Gels, Pastes</li><li>Suppositories – Bases, Dispensing, Displacement value etc.</li></ul>   | 8         |
| 2                                   | <b>Incompatibilities</b> <ul style="list-style-type: none"><li>Physical, chemical and therapeutic incompatibilities observed in prescriptions of dispensed products</li><li>Identification and correction of incompatibilities.</li><li>Inorganic incompatibilities including incompatibility of metals and their salts, non metals, acids, alkalis.</li></ul> Organic incompatibilities: purine bases, alkaloids, ammonium compounds, carbohydrates, glycosides, anesthetics, surface active agents. | 14        |
| <b>Pharma Industrial Management</b> |   |           |
| 3                                   | <b>Concept of Management</b><br>Administrative management: Planning, Organizing, Staffing, Directing and Controlling.<br>Entrepreneurship Development and Operative Management, Personnel, Materials, Production, Financial Marketing, Time/Space Margin / Morale.<br>Principles of Management Co-ordination, Communication, Motivation, Decision-Making, Leadership, Innovation, Creativity, Delegation of Authority / Responsibility, Record keeping.   | 12        |
| 4                                   | <b>Pharmaceutical marketing</b><br>Functions, buying, selling, transportation, storage, finance, insurance, feedback, information, channels of distribution, wholesale, retail departmental store, multiple shops and mail order business.  | 7         |
| 5                                   | <b>Salesmanship</b><br>Principles of sales promotion, advertising, ethics of sales merchandising.   | 4         |

## Practical – 22400P2

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|----|---|
| 1. | Practicals may be designed to solve a Physical incompatibilities(e.g. immiscibility, insolubility and liquidification)  |
| 2. | Practicals may be designed to solve Chemical incompatibilities of alkaloidal salt with alkali substance, soluble iodides, Tannins and salicylates, Iron, CO <sub>2</sub> .  |
| 3. | Chemical incompatibilities of soluble salicylates with alkali, acid and ferric salt.  |
| 4. | Incompatibility of potassium chlorate with oxidizable substances and incompatibility causing evolution of gas (e.g. boric acid with sodium bicarbonate and glycerine, bismuth subnitrate with sodium bicarbonate)   |
| 5. | To prepare and dispense Pastes (e.g. Zinc Gelatin Paste, Compound zinc oxide Paste, Zinc and Salicylic acid Paste, Compound aluminium Paste etc.)   |
| 6. | To prepare and dispense jellies (e.g. Sodium Alginate, Zinc gelatin jelly and Lubricating jelly).   |
| 7. | To prepare and dispense suppositories (Tannic acid suppositories, Phenol suppositories, Icthamol suppositories with Cocoa Butter, Cocoa Butter suppositories containing insoluble solid (boric acid), Cocoa Butter suppositories containing soluble solid (chloral hydrate) |
| 8. | To prepare and dispense Glycerol – gelatin suppositories with macrogols base (Suppository of Eucalyptus Oil, Zinc Oxide – Glycerogelatin suppository, Soap-Glycerin Suppository etc).   |

### References Books:

1. Pharmaceutical Practice – by Diana M. Collett and Michale E. Aulton, ELBS Publishers.
2. Dispensing for pharmaceutical by Cooper and Gunn by S.J. Carter, CBS Publishers.
3. Pharmaceutical Calculations by Mitchell J. Stocklosa and Howard C. Ansel, B. I. Waverly Pvt. Ltd., New Delhi.
4. Pharmaceutical Dosage forms and Drug delivery systems by Howard C. Ansel, Lippincott Williams and Wilkins.
5. Pharmaceutical Practice, Edited by A.J. Winfield and R.M.E. Richards.
6. Bentley's Textbook of pharmaceutics, E A Rawlins.
7. Remington: The Science and Practice of Pharmacy, Latest Edition, by Mack Publishing Company.
8. Management by James A.F. Stoner.
9. Statistics for Management by Richard I. Levin.
10. Personnel Management by Arun Monappa.
11. Business Organisation and Office Management by Santhosh Bushan.