Subject code: 13PH0605
Subject name: Industrial Pharmacy-1

Scope: This subject is designed to impart knowledge and skills of Biopharmaceutics and pharmacokinetics and their applications in pharmaceutical development, design of dose and dosage regimen, and in solving the problems raised therein.

Objective: Upon completion of this course the student should be able to:
1. Know the various pharmaceutical dosage forms and their manufacturing Techniques.
2. Know various considerations in the development of pharmaceutical dosage forms.
3. Formulate solid, liquid, and semisolid dosage forms and evaluate them for their quality.

Teaching and assessment scheme:

<table>
<thead>
<tr>
<th>Teaching Scheme (Hours)</th>
<th>Credits</th>
<th>Theory/ Tutorial Marks</th>
<th>Practical Marks</th>
<th>Total Marks</th>
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<tr>
<td>Theory</td>
<td>Tutorial</td>
<td>Practical</td>
<td>CSE</td>
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<td>3</td>
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<td>4</td>
<td>6</td>
<td>10</td>
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Theory syllabus:

Unit-1

Unit-2

Unit-3
Unit-4 10 Hours


Unit-5 10 Hours

Cosmetics: Formulation and preparation of the following cosmetic preparations: lipsticks, shampoos, cold cream, and vanishing cream, toothpaste, hair dyes, and sunscreens. Pharmaceutical Aerosols: Definition, propellants, containers, valves, types of aerosol systems; formulation and manufacture of aerosols; Evaluation of aerosols; Quality control and stability studies. Packaging Materials Science: Materials used for packaging of pharmaceutical products, factors influencing the choice of containers, legal and official requirements for containers, stability aspects of packaging materials, quality control tests.

Tutorials will be based on the above syllabus.

Teaching hours: 15 Hours

Practical syllabus: Teaching hours: 04 Hours/week
1. Preformulation studies on paracetamol/aspirin/or any other drug.
2. Preparation and evaluation of Paracetamol tablets.
3. Preparation and evaluation of Aspirin tablets.
5. Preparation and evaluation of Tetracycline capsules.
6. Preparation of Calcium Gluconate injection.
7. Preparation of Ascorbic Acid injection.
8. Quality control test of (as per IP) marketed tablets and capsules.
11. Evaluation of Glass containers (as per IP).

Recommended References (Latest edition):
3. Pharmaceutical dosage forms a disperse system Vol.-1 by Liberman & Lachman.
6. Theory and Practice of Industrial Pharmacy by Liberman & Lachman.