

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM – SEMESTER – VII • EXAMINATION – WINTER – 2015

Subject Code: 270002

Date: 07/12/2015

Subject Name: Pharmaceutical Technology –I

Time: 10.30 AM to 1.30 PM

Total Marks: 80

Instructions:

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

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|-------------|---|-----------|
| Q.1 | (a) Classify liquid dosage forms. Describe in brief the formulation components of clear liquids with the role of each component in the formulation. | 06 |
| | (b) Explain the stages in manufacturing of clear liquid dosage forms with a suitable flow diagram. | 05 |
| | (c) What is a stabilizer? Name three stabilizers for liquid oral dosage forms. | 05 |
| Q.2 | (a) Define emulsions. Differentiate emulsions, multiple emulsions and micro emulsions with their limitations. | 06 |
| | (b) Define semi solids. Write advantages, disadvantages and types of semisolids. | 05 |
| | (c) Differentiate pastes, gels and jellies with their specific advantages. | 05 |
| Q.3 | (a) Write general formulation of semisolids with specific use of each ingredient. Enumerate evaluation parameters of semisolids. | 06 |
| | (b) Enumerate ideal characteristics of suppository base. Describe any one method of manufacturing suppositories in detail. | 05 |
| | (c) Enumerate factors influencing penetration of drugs through skin. | 05 |
| Q.4 | (a) Define: Pharmaceutical Aerosols. Give a brief account of propellant. | 06 |
| | (b) Classify filling methods for Aerosols. Describe the manufacturing of Aerosols by cold filling method. | 05 |
| | (c) Write the function of following components in Aerosol.
1). Housing 2). Gasket 3). Actuator 4). Mounting cap | 05 |
| Q.5 | (a) Define SVP and LVP. Describe types of IV sets. | 06 |
| | (b) Discuss in brief on “Lyophilized products”. | 05 |
| | (c) Write short note on FFS technology. | 05 |
| Q. 6 | (a) What are pyrogens? Explain the sources of pyrogens in parenterals. Explain the principle of LAL test for pyrogen testing. | 06 |
| | (b) Explain preparation and storage of WFI. | 05 |
| | (c) Write short note on “Pre filled syringes”. | 05 |
| Q.7 | (a) Describe in brief about the following components used for the formulation of parenteral
1) Preservatives 2) Vehicles 3) Bulking Agents | 06 |
| | (b) Write a brief on Parenteral Suspension. | 05 |
| | (c) Write the evaluation parameters of Pharmaceutical Aerosols. | 05 |