

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM. - SEMESTER- VII • EXAMINATION – SUMMER-2016

Subject Code: 270002

Date: 05/05/2016

Subject Name: Pharmaceutical Technology - I

Time: 2:30 PM to 5:30 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) | What are clean rooms? Describe the standards and criteria for environmental monitoring of clean rooms. | 06 |
| | (b) | Explain in detail the non-aqueous solvents used in the parenteral formulation. | 05 |
| | (c) | Write a note on containers and closures used for parenterals. | 05 |
| Q.2 | (a) | Classify the methods of filling aerosols. Describe any one process with a suitable diagram. | 06 |
| | (b) | Enlist the properties of ideal propellant used in aerosol. Describe in brief propellants used for topical aerosols. | 05 |
| | (c) | Explain the following evaluation tests for aerosols:
1. Flammability and combustibility.
2. Spray pattern and spray testing. | 05 |
| Q.3 | (a) | Describe in brief the importance of following components used in ophthalmic solutions:
1. Tonicity modifiers.
2. Buffers.
3. Viscosity enhancers. | 06 |
| | (b) | Discuss evaluation tests of ophthalmic preparations. | 05 |
| | (c) | Write a brief note on ophthalmic ointments. | 05 |
| Q.4 | (a) | Classify suppository bases and discuss the criteria for their selection. | 06 |
| | (b) | Discuss in brief the additives used in liquid dosage forms. | 05 |
| | (c) | Describe the components of an aerosol valve with their functions. | 05 |
| Q.5 | (a) | Discuss in brief the evaluation test for suspensions. | 06 |
| | (b) | Give important parameters, advantages, disadvantages and applications of microemulsions. | 05 |
| | (c) | Explain in brief the techniques used for the manufacturing of emulsions. | 05 |
| Q.6 | (a) | Write a detail note on: Parenteral Suspensions. | 06 |
| | (b) | Discuss in brief blow fill seal technology for parenterals. | 05 |
| | (c) | Enlist the quality control tests for parenterals. Explain in detail LAL test for pyrogen testing. | 05 |
| Q.7 | (a) | Classify and write the ideal requirements of semisolid bases. Explain in brief oleaginous ointment bases. | 06 |
| | (b) | Explain the evaluation criteria for semisolids in brief. | 05 |
| | (c) | Discuss the mechanisms of drug penetration through skin. | 05 |
