

MPY -104
M. Pharmacy I Semester
Examination, December 2014
Product Development and Formulation

Time: Three Hours

Maximum Marks: 70

Note: i) Answer five questions. In each question part A. B. C is compulsory and D part has internal choice,

ii) All parts of each questions are to be attempted at one place.

iii) All questions carry equal marks, out of which part A and B (Max. 50 words) carry 2 marks, part C (Max. 100 words) carry 3 marks, part D (Max.400 words) carry 7 marks.

iv) Except numericals. Derivation, Design and Drawing etc.

1. a) How is the bulk density important in phannacy field.
- b) How hygroscopicity is important in phannacy field.
- c) Give the significance of particle size as preformulation parameter.
- d) Give the importance of polymorphism and powder flow property as preformulation parameters.

Or

Write a note on preservatives and antioxidants.

2. a) Discuss any two drug-excipient incompatibilities.
- b) Give names of various types of glasses. Discuss the merits and demerits of glass containers.
- c) Discuss any three drawbacks of plastic containers.
- d) Write a note on nutraceuticals.

Or

Write a note on pilot plant scale up technique.

3. a) Give one example of stability indicating assay method.
- b) What are overages?
- c) Write important features of ICH guidelines for drug stability.
- d) Write a note on optimization techniques.

Or

How do you determine the expiry date for a product.

4. a) Discuss any one method of solubility enhancement.
- b) Give example of any one in-vitro and in-vivo correlation involved in dissolution studies.
- c) Write a brief note on solid dispersion.
- d) Write a note on various designs apparatuses used for dissolution testing.

Or

Write an exhaustive note on ophthalmic formulations OR evaluation of parenterals.

5. a) Give any two methods of sterilization of injections,
- b) Discuss any two properties of polymers.
- c) Write method of drug granulation on large scale, d) Write an exhaustive note on biodegradable products.

Or

How do you evaluate dispersible tablets and floating tablets.