

MPY - 104
M. Pharmacy I & II Semester
Examination, December 2012
Product Development and Formulation
Time : Three Hours

Maximum Marks : 70

Note : 1. Attempt any live questions.

2. All questions carry equal marks.

1. a) What do you understand by the term "reformulation studies"? Discuss crystallinity and polymorphism in detail.

b) Discuss following preformulation parameters in detail-

i) Hygroscopicity ii) Particle size

iii) Partition coefficient iv) Dissolution

2. a) Discuss following techniques of solubility enhancement-

i) Hydrotropic solubilization.

ii) Surfactant solubilization.

iii) Cosolvency.

b) Write a note on nutraceuticals.

3. Give a detailed account on ophthalmics.

4. a) How do you compute the expiry period of formulations, discuss? Write a note on stability indicating assay methods.

b) Write a note on packaging materials.

5. a) How do you classify polymers? Give their applications in pharmacy?

b) Write notes on biodegradable polymers

6. Discuss any five types of additives in detail - (following):

i) Antioxidants. ii) Suspending agents

iii) Preservatives. iv) Suppository bases

v) Buffering agents vi) Emulsifying agents

vii) Organoleptic agents

7. Write exhaustive notes on optimization techniques.

8. Write short notes on any three

i) Dissolution testing. ii) Pilot plant scale technique.

iii) Dissolution rate interpretation iv) Evaluation of floating tablets and multilayer tablets.

iv) Tests of containers and closures.

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