

Roll No .

**MPY-104**

**M.Pharmacy, I Semester**

Examination, November 2019

**Product Development and Formulation**

*Time : Three Hours*

*Maximum Marks: 70*

- Note:** i) Attempt any five questions.  
ii) All questions carry equal marks.

1. a) Explain in detail formulation of floating tablets. 7  
b) Write a note on evaluation of parenterals. 7
2. What are the characteristics of ideal package? Explain various types of containers and closures used in pharmaceutical packaging. http://www.rgpvonline.com 14
3. Write a note on : (any two) 14  
a) ICH Guidelines for stability.  
b) Biodegradable polymers.  
c) Computer aided drug formulation.
4. Explain the importance and rational of preformulation studies. Describe various physicochemical factors influencing formulation of drug. 14
5. Write a note on : (any two) 14  
a) Invitro - Invivo correlation.  
b) Types of dissolution apparatus.  
c) Solid dispersions.

6. Write note on : 14  
a) Determination of shelf life.  
b) Optimization techniques.
7. a) Write a note on regulatory guidelines for the manufacturing of Nutraceuticals. 7  
b) Give various polymers used and general method of synthesis in Pharmaceutical industry. 7
8. Write notes on (any two) 14  
a) Excipient-excipient incompatibility  
b) Formulation consideration for ophthalmics  
c) Recent advancement in tablets

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