# **Question Paper**

Exam Date & Time: 29-Nov-2017 (02:00 PM - 05:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

#### MANIPAL COLLEGE OF PHARMACEUTICAL SCIENCES END SEMESTER THEORY EXAMINATIONS - NOVEMBER 2017 PROGRAM: MPHARM SEMESTER 1 DATE: 29/11/2017 TIME: 2:00PM - 5:00PM

Pharmaceutical Formulation Development [PCE-MIP102T]

Marks: 50

Duration: 180 mins.

### Answer all the questions.

### Answer the following (5 marks x 8 = 40 marks)

1)	Discuss on evaluation of organoleptic properties of an API during pre-formulation stage.	(5)
2)	Explain the principle of thermo-gravimetric analysis.	(5)
3)	Explain the phase solubility diagram.	(5)
4)	Mention any five approaches to obtain sink condition in dissolution study.	(5)
5)	Enlist any THREE excipients used commonly in sterile preparations. Discuss important points to be considered while deciding Tonicity for sterile product.	(5)
6)	Define Dissolution. Give any four importance of dissolution studies.	(5)
7)	What is the importance of stability studies? Briefly explain significant change in a stability study.	(5)
8)	Discuss briefly about stability protocols and data reporting.	(5)

## Answer the following with specific answers (2 marks x 5 = 10 marks)

9)	Classify the chemical compound based on crystal habit and	(2)
A)	internal structure.	
B)	Oral administration is the most convenient and commonly	(2)

	employed route of drug delivery. Why?	
C)	Mention any two reasons for the dissolution study of dosage forms.	(2)
D)	Mention any two strategies employed for formulating poorly soluble drugs as parenteral preparations.	(2)
E)	Give any two importance of degradation kinetics	(2)

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