Total No. of Questions : 4]	SEAT No.:
P3974	[Total No. of Pages : 2

[5246]-202 M. Pharmacy

FORMULATIONS AND DEVELOPMENT (2013 Pattern) (Credit System)

Time: 3 Hours] [Max. Marks: 50

Instructions to the candidates:

- 1) Question number one is compulsory.
- 2) Figures to the right indicate full marks.
- 3) Draw well labeled diagrams wherever necessary.
- Q1) Discuss details study of ICH Q8 (R2) Guidelines for pharmaceutical development. [10]
- Q2) Attempt ANY THREE questions from following

 $[3 \times 5 = 15]$

- a) Concept of Quality by Design
- b) Factors affecting phase behaviour
- c) Regulatory perspective of pharmaceutical packaging material for Novel drug delivery Systems.
- d) Semisolid based on Liposomes
- *Q3*) Short Note (ANY THREE)

 $[3 \times 5 = 15]$

- a) Approaches for taste masking
- b) Self emulsified drug delivery systems
- c) Nutraceuticals
- d) Metered Dose Inhalers

Q4) Discuss role of propellants in inhalation aerosols. Add a note on quality assurance of Aerosol formulation. [10]

OR

Discuss Specialized dose dispensers in veterinary dosage forms and explain formulation strategy for administration of veterinary dosage forms via drinking water. [10]

