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**Paper Code :DMS-221  
Roll No.**

**MBA-14(Pharmaceutical Marketing)  
2<sup>nd</sup> Year Examination, Academic Batch 2016-17  
Pharmaceutical Formulation Design and Development**

*Time : 3 Hours ]*

*[ Max. Marks : 100*

*Note. Attempt any **Five** questions. All questions carry equal marks.*

Q1. Define Preformulation studies. Explain the role of crystallinity and polymorphism study in the development of a new drug formulation in solid state.

Q2. Define and classify polymers. Write their synthesis and properties..

Q3. Explain the following terms:

a) BCS system of classification of drugs.      b) Similarity factor.

Q4. Explain various factors influencing **IVIVC**

Q5. Explain various additives used in liquid dosage forms.

Q.6. Explain pharmaceutical ingredients and excipients-definition and types

Q.7. Discuss various additives used in semisolid dosage forms.

Q.8. Write a note on accelerated stability testing of pharmaceutical products.