

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

(LQ 4267)

FEBRUARY 2020

Sub. Code: 4267

**B.PHARM. DEGREE EXAMINATION  
FOURTH YEAR  
PAPER I – FORMULATIVE PHARMACY AND BIO-PHARMACEUTICS**

*Q.P. Code: 564267*

**Time: Three hours**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Define Bio-pharmaceutics. Discuss the various factors influencing the drug absorption in biological milieu.
2. Explain the chemical properties influence the stability of pharmaceutical formulation. Discuss the stability testing protocol followed for the biological products.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Quality control of hard gelatin capsules.
2. Process followed for the bio-equivalency testing.
3. Different types of granulation techniques adopted in tablet manufacturing.
4. Sugar coating process.
5. Nanoparticles.
6. Processing problems of tablets and its rectification.
7. Biological half-life and Elimination rate constant.
8. Multi-orifice centrifugation method used in microencapsulation.

**III. Short answers on:**

**(10 x 2 = 20)**

1. Bio availability.
2. Phase separation.
3. Bridging and filling.
4. Different types of dissolution apparatus.
5. Compartment models.
6. Diffusion mechanism.
7. Liposomes.
8. Rat hole formation.
9. Process variables of film coating.
10. Osmosis.

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