

**UKA TARASADIA UNIVERSITY, BARDOLI**  
**M. Pharm. Semester - II (PT)**  
**SUB: Pharmaceutical Technology – II (040120202)**

**Max. Marks = 70**

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**SECTION – I**

**Q-1 Answer the following questions.** [11]

1. Enlist natural and synthetic polymers used in extrusion-spheronization [02]
2. Enlist limitation of medicated lozenges. [02]
3. Differentiate between spray drying and spray congealing. [02]
4. Enlist areas where Automated Process Control System for temperature and pressure required. [02]
5. Discuss advantages and disadvantages of Implant tablets. [03]

**Q-2 Answer the following questions.** [12]

(A) Explain in details about stability of emulsion. [06]

OR

Differentiate between single and multiple walled microcapsules. Discuss various techniques to formulate it.

(B) Explain in details about electrostatic coating. [06]

**Q-3 Attempt any THREE from the followings.** [12]

1. Discuss the significance of automated process control in pharmaceutical industry.
2. How software based system helps in pharmaceutical industry?
3. Enlist the equipments used for solid material transportation within pharmaceutical industry and discuss any one.
4. Describe the objectives of preventive maintenance in pharmaceutical industry.

## **SECTION -II**

**Q-4 Answer the following questions.** [11]

1. Enlist significance of tablets with modified release. [02]
2. Define medicated lozenges. Enlist stability parameters to be considered. [02]
3. Enlist the formulation requirements for chewable tablets giving suitable examples.[02]
4. Enlist significance of micellar systems in pharmaceuticals. [02]
5. Discuss any two novel/patentable technology for tablets used in pharmaceutical industry. [03]

**Q-5 Answer the following questions.** [12]

(A) Enlist and discuss various stage of pelletization giving schematic diagram. [06]

**OR**

Define cryopelletization and discuss in details giving suitable examples.

(B) Discuss formulation aspects of nano-suspension giving suitable examples. [06]

**Q-6 Attempt any THREE from the followings.** [12]

1. Enlist storage, packaging and stability conditions for hard gelatin capsule.
2. Enlist various techniques used for microcapsulation and discuss any one in details.
3. Enlist and discuss advantages and disadvantages of spheronization.
4. A tablet formulation contains waxy material, discusses problems associated and remedies for it.