

# UKA TARSADIA UNIVERSITY

M.Pharm. (Pharmaceutics) / M.Pharm. (PT) (1st Semester)

**Subject :**040040103 /040120103 - Industrial Pharmacy Practice

**Duration: 3 Hours**

**Max. Marks: 70.**

**Instructions:**

1. Attempt all questions.
2. Write each section in a separate answer book.
3. Make suitable assumptions wherever necessary.
4. Figures to the right indicate full marks allocated to that question.
5. Draw diagrams/figures whenever necessary.

## **Section-1**

**Q-1 (A) Answer the following. [07]**

- I) Enlist names of any three perforated coating pans.
- II) Why is process layout not possible in pharmaceutical industries?
- III) Enlist equipments for determining crushing strength of tablet.
- IV) Which methods are used to determine particulate count in parenteral area?
- V) What are the 5 M's required for production?
- VI) Write the essential components of fire.
- VII) Define plant location.

**Q-1 (B) Answer the following in brief. (Any 4) [08]**

- I) Explain different steps of BFS technology.
- II) Explain in brief about triple roller mill.
- III) Which parameters can influence quality of gelatin employed in manufacturing of capsule shells?
- IV) Enlist advantages of line layout.
- V) Mention the objectives of plant location.
- VI) Explain sources of electrical hazards.

**Q-2 Answer the following. [10]**

- A) Ms. Natasha wants to start manufacturing of Paracetamol Tablets. As a pharmacist, suggest her qualitative & quantitative layout.

OR

- A) Discuss the principle, objectives, advantages & disadvantages of functional layout of pharmaceutical plant.
- B) Discuss quality control tests for sterile products.

OR

- B) Describe advantages, manufacturing & quality control aspects of Soft gelatin capsules.

**Q-3 Answer the following in detail. (Any 2) [10]**

- A) Discuss various equipments used in manufacturing of semisolid dosage forms.
- B) Describe the importance of HVAC in pharmaceutical manufacturing unit.
- C) Describe layout for manufacturing emulsions. Describe about manufacturing requirements for emulsions as per cGMP.

## **Section-2**

**Q-4 (A) Answer the following. [07]**

- I) What should SOP of sampling of lubricated blend include?
- II) What are A, B and C types of items in ABC concept on inventory management?
- III) Which media is used for media fill test of parenterals?
- IV) What is passivation process?
- V) Give two examples each of water and oil soluble antioxidants
- VI) What qualities should a person working in pilot plant possess?
- VII) Enlist steps involved in production planning.

**Q-4 (B) Answer the following in brief. (Any 4) [08]**

- I) Pilot plant is necessary intermediate between R&D and manufacturing plant. Justify.
- II) Enlist responsibilities of quality assurance department in pilot plant.
- III) Enlist objectives of inventory control.
- IV) What factors are to be considered for production forecasting?
- V) Enlist salient features of Batch Packaging Record.
- VI) Enlist equipments present in an IPQC laboratory.

**Q-5 Answer the following.**

**[10]**

A) Explain why training is an essential aspect in operation of pilot plant.

OR

A) Write a note on production scheduling.

B) What are SOPs? Write the SOP for operation of a blender.

OR

B) Discuss pilot plant activities for manufacturing of hard gelatin capsules.

**Q-6 Answer the following in detail. (Any 2)**

**[10]**

A) Write a short note on Batch manufacturing Record.

B) What is dry granulation? Describe equipments used for dry granulation in a pilot plant.

C) Explain with suitable examples Economic Order Quantity as a tool for material management.