

**UKA TARSADIA UNIVERSITY**  
**M.PHARM I<sup>st</sup> Semester Examination**  
**Subject Name: Industrial Pharmacy Subject Code: 040040103**

Time : 10:00 am to 1:00 pm

Date : 26/12/2013

**Time: 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.
5. Draw diagrams/figures whenever necessary.

**Section-I**

**Q-1 Answer the following:** [11]

- a) What do you understand by A, B, C and D areas with reference to parenteral manufacturing? Enlist different activities that can be carried out in those areas. [03]

OR

- a) Explain the working principle of a Rapid Mixer Granulator.
- b) Mr. Aniket wants to manufacture film coated tablets of Ciprofloxacin employing wet granulation technique. Describe with a neat diagram the qualitative and quantitative layout. [08]

**Q-2 Answer the following:** [12]

- a) Discuss industrial hazards and its prevention with reference to pharmaceutical industry. [08]

OR

- a) Write a note on the design and facility required for manufacturing of sterile products.
- b) What is the importance of IPQC? What are the instruments employed in IPQC of capsules? [04]

**Q-3 Answer the following: (Any 2)** [12]

- a) Write a note on Types, advantages and factors affecting plant layout.
- b) Describe Equipments required in the manufacturing of liquid orals as per Schedule M.
- c) Discuss HVAC system in a pharmaceutical manufacturing unit. .

**Section-2**

**Q-4 Answer the following:** [11]

- a) What are the objectives of pilot plant? [03]

OR

- a) What are SOPs? Draw format of SOP.
- b) Mr. Haresh wants to manufacture film coated tablets of Verapamil Hydrochloride Tablets. Prepare a BMR for the said product. [08]

**Q-5 Answer the following:** [12]

- a) Mr. Anand has developed hard gelatin and soft gelatin capsules of a vitamin A in R&D. Suggest pilot plant activities for the manufacturing of these dosage forms. [08]

OR

- a) Write a note on production scheduling and forecasting.
- b) What are the objectives and policies of production management? [04]

**Q-6 Answer the following: (Any 2)** [12]

- a) Enlist various techniques of inventory control. Explain EOQ as a tool for inventory management.
- b) Describe SOP of tablet compression machine.
- c) Discuss Training activity in pilot plant.
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