

GUJARAT TECHNOLOGICAL UNIVERSITY**M. Pharm – SEMESTER – I • EXAMINATION – SUMMER - 2016****Subject Code:910208****Date: 30/05/2016****Subject Name: Industrial Pharmacy - II****Time: 10:30 AM to 1:30 PM****Total Marks: 80****Instructions:**

- 1. Attempt any five questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**

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| Q.1 | (a) | Describe significance of pilot plant scale up study. Discuss about large scale manufacturing techniques of tablets | 06 |
| | (b) | Discuss the stability aspects of soft gel capsules during manufacturing scale-up. | 05 |
| | (c) | Describe general layout and facilities requirements of pilot plant. | |
| Q.2 | (a) | Discuss the cost control elements in production management. | 06 |
| | (b) | Explain role of personnel in production management. | 05 |
| | (c) | Discuss environmental factors influencing on production management. | 05 |
| Q.3 | (a) | What do you mean by material handling systems? Describe any one of them for Pharma industry. | 06 |
| | (b) | How the value analysis of material is carried out? | 05 |
| | (c) | Discuss about sales forecasting. | 05 |
| Q.4 | (a) | Define EOQ for Inventory management and Discuss it graphically in detail. | 06 |
| | (b) | Discuss preventive maintenance, predictive maintenance in production. | 05 |
| | (c) | Write a short note on documentation importance in maintenance. | 05 |
| Q.5 | (a) | Justify: Pilot plant and industrial scale equipments does not create any problem with the equipment design. | 06 |
| | (b) | How will you analyze the effluents in general and treat them before disposal as per government requirement ? | 05 |
| | (c) | Discuss on technology transfer: Pilot plant to production. | 05 |
| Q. 6 | (a) | Classify the industrial hazards and discuss the handling technique of accident prevention. | 06 |
| | (b) | Write a detail note on sources & prevention of chemical hazards. | 05 |
| | (c) | Describe various methods to prevent electrical hazards. | 05 |
| Q.7 | (a) | Define BOD and COD. Discuss monitor and controls for COD of industrial waste water | 06 |
| | (b) | Discuss on safety measures and pollution control measures applicable in pharmaceutical industries. | 05 |
| | (c) | Give significance of documentation in pharmaceutical manufacturing. | 05 |
