Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. Pharm. – SEMESTER – I • EXAMINATION – WINTER 2013

Subject Code: 910208 **Date: 26-12-2013**

Subject Name: Industrial Pharmacy - II

Time: 10.30 am - 01.30 pm **Total Marks: 80**

Instructions:

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

Q.1	**(a)**	Write significance of pilot plant scale up study. Discuss about large scale manufacturing techniques of injectables.	**06**
	(b)	Describe general layout and facilities requirements of pilot plant.	**05**
	(c)	Write note on technology transfer: Pilot plant to production.	**05**
Q.2	**(a)**	Discuss the cost control elements in production management.	**06**
	(b)	Write a short note on documentation importance in maintenance.	**05**
	(c)	Discuss vendor development capacity assessment for raw materials to be used in semisolids.	**05**
Q.3	**(a)**	Write in detail note on various techniques used in inventory management.	**06**
	(b)	Define EOQ. Discuss advantages and limitation of this system.	**05**
	(c)	Explain production scheduling and forecasting.	**05**
Q.4	**(a)**	Discuss the management of scrap disposal in pharmaceutical plant.	**06**
	(b)	Classify types of management and discuss material management in detail.	**05**
	(c)	Classify maintenance and discuss in detail preventive maintenance.	**05**
Q.5	**(a)**	Explain COD. Discuss monitor and controls for COD of industrial waste water.	**06**
	(b)	Discuss the role of personnel in production management.	**05**
	(c)	Discuss environmental factors influencing on production management.	**05**
Q. 6	**(a)**	Classify the industrial hazards and discuss fundamentals of accident prevention.	**06**
	(b)	Write a detail note on sources & prevention of electrical hazards.	**05**
	(c)	Discuss on safety measures and pollution control measures applicable in pharmaceutical industries.	**05**
Q.7	**(a)**	Justify: Pilot plant and industrial scale equipments does not create any problem with the equipment design.	**06**
	(b)	Importance of stability parameter in scale up techniques.	**05**
	(c)	Discuss product uniformity parameter of dosage form during scale up techniques	**05**

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