Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. Pharmacy Sem-I Regular / Remedial Examination January/February 2011

Subject code: 910202

Subject Name: Industrial Pharmacy

Date: 03 /02 /2011 **Time: 10.30 am – 01.30 pm**

Instructions: **Total Marks: 80**

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

Q.1	(a)	Discuss various factors to be considered for selection of pharmaceutical factory location.	**06**
	(b)	Describe the equipments required in the manufacture of solid dosage forms as per Schedule-M.	**05**
	(c)	Write a note on personnel facilities for pharmaceutical industry.	**05**
Q.2	(a)	What are the objectives of SOP? Explain format, writing style and content of SOP.	**06**
	(b)	Explain inventory control with examples.	**05**
	(c)	What is pilot plant? Describe pilot plant operation.	**05**
Q.3	(a)	Explain qualitative and quantitative departmental layout for semisolid dosage forms.	**06**
	(b)	Define production planning. Explain various procedures used for production planning.	**05**
	(c)	Explain fluid bed processor with its application.	**05**
Q.4	(a)	Enlist types of equipments required for semisolid dosage form. Explain planetary mixture.	**06**
	(b)	Explain departmental layout with specific requirement of equipments for oral liquid dosage forms.	**05**
	(c)	What is validation protocol? Describe contents of validation protocol.	**05**
Q.5	(a)	Enlist the type of utility services required for pharmaceutical factory. Explain any two in detail.	**06**
	(b)	Enumerate types of documents. Describe the general guidelines to be followed for design and use of documents.	**05**
	(c)	Explain scale-up consideration for sterile dosage forms.	**05**
Q. 6	(a)	Describe objectives of scale up techniques. Explain scale up consideration for semisolid dosage forms.	**06**
	(b)	Enlist types of documents with its importance are to be attached to BMR of capsule batch.	**05**
	(c)	Enlist ideal characteristics of clean room. Draw a detailed rough layout of the plant for production of sterile dosage forms according to the GMP guidelines.	**05**
Q. 7	(a)	What is cGMP? Discuss briefly its significance.	**06**
	(b)	Describe importance of HVAC facilities for pharmaceutical industry.	**05**
	(c)	Write a note on batch packaging record.	**05**

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