Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. Pharm. – SEMESTER – III • EXAMINATION – WINTER • 2014

Subject Code: 930001 **Date: 04-12-2014**

Subject Name: Experimental Design and Patents

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)**	Define IPR. Enumerate it. Explain Paris Convection.	**06**
	(b)	Write a brief note about patent co-operation Treaty (PCT)	**05**
	(c)	Explain Types of Patent Application.	**05**
Q.2	**(a)**	Give brief discussion about term WIPO, TRIPS agreement, Doha declaration and GATT.	**06**
	(b)	Enlist inventions which are not patentable under the Indian patent act 1970.	**05**
	(c)	What are the distinct features of Amendment 2005 in Indian Patent act 1970?	**05**
Q.3	**(a)**	"Recently supreme court of India reject Novartis's appeal regarding its brand Gleevec (Imetinib Mesylate)" Write an abstract about this issue & its judgment.	**06**
	(b)	Discuss infringement. Explain different types of infringement.	**05**
	(c)	Explain in brief about Patent claim. Classify Patent claim types.	**05**
Q.4	**(a)**	Give a flowchart for Indian patent filling procedure and patent filling procedure under PCT .	**06**
	(b)	Enlist different Documents required for filing patent application in India.	**05**
	(c)	Discuss guidelines for preparation of laboratory notebook and its importance in Patent protection.	**05**
Q.5	**(a)**	Explain features and applications of central composite designs.	**06**
	(b)	What do you understand by full model & reduced model as per experimental design? Explain with Example	**05**
	(c)	Explain:- (1) Interaction (2) Levels (3) Qualitative and quantitative factors	**05**
Q. 6	**(a)**	Discuss importance of experimental designs in clinical trials.	**06**
	(b)	Give importance and types of (1) contour plots and (2) Response surface plots.	**05**
	(c)	Explain Plackett- Burman experimental design with suitable example.	**05**
Q.7	**(a)**	Differentiate one way ANOVA and two way ANOVA.	**06**
	(b)	Discuss significance of ANOVA in factorial design.	**05**
	(c)	Clarify in brief about optimization by Grid search method.	**05**

****