Seat	No.: _	Enrolment No	
		GUJARAT TECHNOLOGICAL UNIVERSITY	
		M. Pharm. – SEMESTER – III • EXAMINATION – SUMMER • 2014	
Sub	ject	Code: 930001 Date: 19-05-2014	
Sub	ject	Name: Experimental Design and Patents	
Tim	e: 02	2:30 pm - 05:30 pm Total Marks: 80	
Instr	uctio	ons:	
		Attempt any five questions.	
		Make suitable assumptions wherever necessary.	
	3.	Figures to the right indicate full marks.	
Q.1	(a)	Define patent. Explain importance of the patent filling. Mention in detail about criteria for patentability of invention.	06
	(b)	Write in detail about different types of patent with suitable examples.	05
	(c)	Which type of inventions are non-patentable as per current Indian Patent act?	05
Q.2	(a)	Explain in brief about factors and levels in factorial design.	06
	(b)	Write in detail about 2^2 factorial design.	05
	(c)	What is ANOVA? Write differences between one way and two way ANOVA.	05
Q.3	(a)	Explain in detail about types of patent application in India and mention advantage of PCT application filling for inventor.	06
	(b)	Which components are required to be mentioned for complete specification of patent application? Explain in detail.	05
	(c)	Define Trademark. Which different types of trademark can be registered as per Indian trademark law.	05
Q.4	(a)	What is patent search? Explain impotance of patent search and enumarate different sources for patent search.	06
	(b)	Write differences between full factorial and fractional factorial design.	05
	(c)	Discuss advantage and disadvantage of Plackett Burman design as compare to other optimization design.	05
Q.5	(a)	Explain in detail about different types of claim.	06
	(b)	What is factor interaction? Discuss detection methods for interaction in factorial design.	05
	(c)	Discuss in detail about patent infringement.	05
Q. 6	(a)	What is importance of laboratory notebook? Explain in detail about format for preparation of laboratory notebook.	06
	(b)	Write important key features of patent rule 2003.	05
	(c)	Explain application of experimental design for pharmacoinformatics.	05
Q.7	(a) (b) (c)	Describe different ways of opposition against grant any patent in India. Write in detail about types of central composite design. Write a short note on contour plot.	06 05 05

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