Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VI • EXAMINATION – SUMMER - 2016

Subject Code:2163605 Date: 17/05/2016

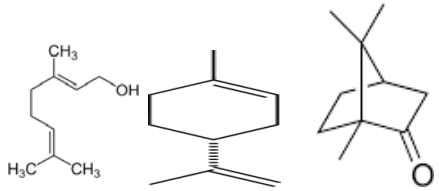
Subject Name:Technology of Solid Dosage Forms & Medicinal Natural Products (DE-VI)

Time:10:30 AM to 01:00 PM Total Marks: 70

Instructions:

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

Q.1	**(a)**	Classify and describe tablet coating.	**07**
	(b)	Write the biosynthesis of Phenylalanine	**07**
Q.2	**(a)**	Define tablet dissolution; explain the types of dissolution apparatus and dissolution procedure in detail.	**07**
	(b)	Explain the biosynthesis of Fatty Acids	**07**
		OR	
	(b)	(i). Explain Wagner-Meerwein rearrangement in terpenoids.	**04**
		(ii). Write short note on Platelet Activity factor.	**03**
Q.3	**(a)**	Define tablet and describe various method of granulation	**07**
	(b)	Define and classify capsules	**07**
		OR	
Q.3	**(a)**	Draw a neat-labeled diagram of the layout of tablet manufacturing facility. Describe each section in brief.	**07**
	(b)	Enlist the method of microencapsulation. Explain in detail phase separation spray drying method.	**07**
Q.4	**(a)**	Enlist quality control test of tablets and describe disintegration test in detail.	**07**
	(b)	Geraniol (as pyrophosphate) may be transformed by higher plants into a number of monoterpenes. Describe how Geraniol is biosynthesized and how it, in turn is converted into other monoterpenes. Eg. Limonene and camphor.	**07**



Geraniol Limonene Camphor

OR

Q.4	**(a)**	(i). Explain the characteristic features of Porphine the parent Porphyrin	**04**
		(ii). Explain the term " Cross Conjugation".	**03**
	(b)	What is microencapsulation? Give the advantages of microencapsulation	**07**
Q.5	**(a)**	Give the biosynthesis of DMAPP and IPP by Mevalonate pathway in Terpene biosynthesis.	**07**
	(b)	(i). Give classifications of natural sources of drugs.	**03**
		(ii). Explain Gallotannins	**04**
		OR	
Q.5	**(a)**	(i).Explain the classification of Flavanoids.	**04**
		(ii). Explain Baker-Venkatraman rearrangement	**03**

(b) (i).Write short note on Isoprene rule. **02**

(ii). Explain various process used for extraction of active constituent/s from plant source. **05**

****