

**GUJARAT TECHNOLOGICAL UNIVERSITY**
**BE - SEMESTER-VI(NEW) – EXAMINATION – SUMMER 2019**
**Subject Code:2163605**
**Date:21/05/2019**
**Subject Name:Technology of Solid Dosage forms & Medicinal Natural Products**
**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.

		MARKS
<b>Q.1</b>	(a) Briefly mention the side effects of alkaloid- Hyoscyamine on human body	<b>03</b>
	(b) Write a note on supercritical fluid extraction. Mention the advantages of Carbon dioxide.	<b>04</b>
	(c) Describe how Phenylalanine and Tyrosine are made from Shikkinic acid pathway biosynthetically	<b>07</b>
<b>Q.2</b>	(a) Write a short note on Extraction of drug mentioning the steps involved in extraction process.	<b>03</b>
	(b) Write short notes on (i). Countercurrent extraction, (ii). Comminution	<b>04</b>
	(c) Describe Morphological, Chemical & Chemo-taxonomical classifications of drug.	<b>07</b>
	<b>OR</b>	
	(c) Enlist the method of microencapsulation. Explain in detail air suspension method	<b>07</b>
<b>Q.3</b>	(a) Differentiate between Hard & soft gelatin capsule	<b>03</b>
	(b) Write a note on sugar coating of tablet	<b>04</b>
	(c) Describe isolation of (1).Nicotine & (2).Bromelain	<b>07</b>
	<b>OR</b>	
<b>Q.3</b>	(a) List out the uses of TLC in phytochemical analysis of herbal drugs	<b>03</b>
	(b) Illustrate briefly how steroid (Lanosterol) is made biosynthetically from mevalonate pathway?	<b>04</b>
	(c) Enlist quality control test of tablets and describe disintegration test in detail	<b>07</b>
<b>Q.4</b>	(a) Mention: (i). an example of Lignan, (ii). Any two tests for detecting cardiac glycoside.(iii).the secondary metabolite in plants	<b>03</b>
	(b) What is microencapsulation? Give the advantages of microencapsulation	<b>04</b>
	(c) Define tablet and describe various method of granulation	<b>07</b>
	<b>OR</b>	
<b>Q.4</b>	(a) Suggest a method for the conversion of Morphine to Codeine	<b>03</b>
	(b) Write in brief about gelatin manufacturing process along with the types of gelatin	<b>04</b>
	(c) Explain Maceration, Infusion, Digestion and Decoction	<b>07</b>
<b>Q.5</b>	(a) Describe the synthesis of menthol	<b>03</b>
	(b) What are the defects of tablet coating. Explain.	<b>04</b>
	(c) Describe the isolation of two antineoplastic drugs derived from Periwinkle plant	<b>07</b>

- Q.5** (a) What are the types of tablet coating **03**  
(b) Briefly describe the role of genetic marker in herbal drug technology. **04**  
(c) Draw a neat-labeled diagram of the layout of tablet manufacturing facility. **07**  
Describe each section in brief.

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