

Session: 2024-25			
Part A - Introduction			
Name of Programme	UG Programme		
Semester	6 th		
Name of the Course	Food Packaging		
Course Code	B23-VOC-303		
Course Type	CC-M7 (V)		
Level of the course	100-199		
Pre-requisite for the course (if any)			
Course Learning Outcomes (CLO) After completing this course, the learner will be able to:	CLO 1: Know about the Basics of Food Packaging CLO 2: Understand about the different materials used in Food packaging. CLO 3: Acquire knowledge about innovative and smart packaging. CLO 4: Know about the applications of packaging in various fields. CLO 5 : Prepare different kinds of packages for food.		
Credits	Theory	Practical	Total
	3	1	4
Teaching Hours per week	3	2	5
Internal Assessment Marks	20	10	30
End Term Exam Marks	50	20	70
Max. Marks	70	30	100
Examination Time	3 hours	3 hours	
Part B- Contents of the Course			
Instructions for Paper- Setter: The examiner will set 9 questions asking two questions from each unit and one compulsory question by taking course learning outcomes (CLOs) into consideration. The compulsory question (Question No. 1) will consist at least 4 parts covering entire syllabus. The examinee will be required to attempt 5 questions, selecting one question from each unit and the compulsory question. All questions will carry equal marks.			
Unit	Topics		Contact Hours
I	Basics of Food Packaging- Introduction to Food packaging, Functions of food packaging, Classifications of Packaging - Flexible packaging and rigid packaging, Types of food package, Futuristic trends in packaging, Food Packaging Industry Scope.		11
II	Packaging Materials and Storage- Materials used for Packaging paper, paperboard, metal, plastics and glass. Factors affecting shelf life of food material during storage, material handling techniques-warehousing & storage and testing,		11
III	Modern packaging techniques - Shrink packaging, Stretch packaging, blister packaging, Aseptic packaging, Modified Atmospheric Packaging (MAP), Vacuum Packaging, Eco-friendly packaging.		11
IV	Food Packaging Distribution & logistics- Introduction to logistics, element of		12

	logistics, distribution of channels, Packaging Cycle, classification of pallets, Markings on Package - Handling marks, routing marks, information marks, shelf life.	
V	<p style="text-align: center;">Practicals:</p> <ul style="list-style-type: none">○ Preparation of various flexible food packages.○ Preparation of various rigid food packages.○ Study and operation of various food packaging machines.○ Study about the various types of Paper boards used in food packaging.○ Preparation of various paper bags.○ Test conducted on food packages- Drop test, Vibration test○ Test conducted on food packages- Inclined impact test, Compression test.	30
Total Contact Hours		75
Suggested Evaluation Methods		
Internal Assessment: 30		End Term Examination: 70
➤ Theory	20	➤ Theory: 50
•Class Participation:	5	Written Examination
•Seminar/presentation/assignment/quiz/class test etc.:	5	
•Mid-Term Exam:	10	
➤ Practicum	10	➤ Practicum 20
•Class Participation:	5	Lab record, Viva-Voce, write-up and execution of the practical
•Seminar/Demonstration/Viva-voce/Lab records etc.:	5	
•Mid-Term Exam:	-	
Part C-Learning Resources		
Recommended Books/e-resources/LMS:		
<ul style="list-style-type: none">○ Gordon L. Robertson, Food Packaging: Principles and Practice, Third Edition,2013.○ Gordon L. Robertson, Food Packaging and Shelf Life: A Practical Guide,2010.○ Ruben Hernandez, Susan E. MSelke, John Culter, John D. Culter, Plastics Packaging: Properties,Processing, Applications, and Regulations,2000.○ Walter Soroka, Fundamentals of Packaging Technology-Fourth Edition,		