

- SEMESTER:- II
- COURSE NO.:- FST-123
- COURSE TITLE:- POST HARVEST MANAGEMENT
- CREDIT:- 3(2+1)

OF FRUITS AND VEGETABLES

➤ THEORY

NO. OF UNITS	TOPICS	NO. OF LECTURES
1	<i>Post harvest technology of fruits and vegetables: An over view concept and science, importance loss reduction, role in export, economy and employment generation</i>	3
2	<i>Morphology, structure and composition of fruit and vegetable</i> ▪ <i>Physical, textural characteristics, structure and composition</i>	3
3	<i>Maturity standards</i> ▪ <i>Importance, methods of maturity determinations maturity indices for selected fruits and vegetables</i>	3
4	<i>Harvesting of important fruits and vegetables</i>	3
5	<i>Fruit ripening- chemical changes, regulations, methods</i>	3
6	<i>Storage practices : Controlled atmospheric, Bead atmosphere, hypobaric storage, cool store, zero energy cool chamber</i>	4
7	<i>Commodity pretreatments - chemicals, wax coating, prepackaging</i>	4
8	<i>Physiological post harvest diseases, chilling injury and disease</i>	3
9	<i>Handling and packaging of fruits and vegetables</i> ▪ <i>Post Harvest handling system for citrus, mango, banana, pomegranate, tomato, papaya and carrot packaging house operations</i>	3
10	<i>Principles of transport and commercial transport operations</i>	3
	TOTAL	32

➤ PRACTICALS

NO. OF UNITS	TOPICS	NO. OF EXPT.
1	Studies on morphological features of some selected fruits and vegetables	1

2	Studies on maturity indices	1
3	Studies on harvesting of fruits and vegetables	1
4	Determination of RQ	1
5	Studies on precooling and storage of fruits and vegetables	1
6	Studies on wax coating on apples, papaya, citrus, mango, aonla	2
7	Studies on use of chemicals for ripening and enhancing shelf life of fruits and vegetables	2
8	Studies on regulations of ripening of banana, mango, papaya	1
9	Studies on various storage systems and structures	1
10	Studies on prepackaging of fruits	1
11	Studies on prepackaging of vegetables	1
12	Studies on physiological disorders - chilling injury of banana and custard apple	1
13	Visit to commercial packaging house – grape/mango / pomegranate/banana	1
14	Visit to commercial storage structures - onion, garlic, potato	1
	TOTAL	16

➤ *Reference Books:*

- *Post Harvest Physiology, Handling and Utilization of Tropical and Subtropical Fruits and Vegetable* Er. B. Pantastico
- *Post Harvest: An Introduction to the Physiology and Handling of Fruits and Vegetables.* R. B. Wills, M. B. Mc Glasson, D. Graham, T.L. Lee and E. G. Hall.
- *Hi-tech Horticulture* D. K. Singh.
- *Biochemistry of Foods* Eskin, Henderson and Townsend
- *Fruit and Vegetable Technology* Duckworth.