

▪ SEMESTER:- V

▪ COURSE NO.:- FST-3514

▪ COURSE TITLE:- CARBONATED BEVERAGE

▪ CREDITS:- 2(1+1)

TECHNOLOGY

➤ THEORY

NO. OF UNITS	TOPICS	NO. OF LECTURES
1	<i>History and types of soft drinks</i>	1
2	<i>Water treatment and quality</i>	1
3	<i>Specification for beverage water</i>	1
4	<i>Alkalinity reduction ,filtration of water,water softening.</i>	1
5	<i>Sweeteners used in soft drink and their properties ,non nutritive sweetners</i>	1
6	<i>Natural colorants used in soft drinks</i>	1
7	<i>Synthetic colorants used in soft drink</i>	1
8	<i>Acidulants used in soft drink</i>	1
9	<i>Clouding agents for soft drink</i>	1
10	<i>Flavouring agents used in soft drink</i>	1
11	<i>Carbon dioxide and carbonation for soft drink</i>	1
12	<i>Equipments and machineries used in soft drink</i>	1
13	<i>Packaging aspects in soft drink</i>	1
14	<i>Quality control in soft drink –Chemical and sensory</i>	1
15	<i>Quality control in soft drink –Microbiological quality</i>	1
	<b>TOTAL</b>	<b>15</b>

➤ PRACTICALS

NO. OF UNITS	TOPICS	NO. OF EXPT.
1	<i>Physical properties of water</i>	1
2	<i>Determination of Hardness of water</i>	1
3	<i>Determination of density of caramel</i>	1
4	<i>Determination of viscosity of caramel</i>	1
5	<i>Determination of colours in soft drinks by wool technique</i>	1
6	<i>Determination of saccharine in beverages</i>	1
7	<i>Determination of benzoic acid in beverages</i>	1
8	<i>Determination of sulphurdioxide in beverages</i>	1
9	<i>Determination of caffeine in cola type of beverages</i>	1
10	<i>Determination of brix value, gas content, PH and acidity of beverages</i>	1
11	<i>Microbial total plate count of water and beverages</i>	1
12	<i>Microbial analysis of water for E coli</i>	1
13	<i>Visit to carbonation Unit</i>	1
14	<i>Visit to water treatment plant</i>	1
15	<i>Visit to the drinking water/mineral water plant</i>	1
	<b>TOTAL</b>	<b>15</b>

➤ *Reference Books:*

- *Preservation of Fruit and Vegetable Products*      *Giridharilal, Siddappa G.S. and Tondon G. D.*
- *Fruit and Vegetable Juices*      *Tressler D. K., Joslyn M. A. and Marsh G. C. AVI publishing company, New York.*
- *Food Engineering Operations*      *Brennan, Buttlar, Crowell and Lilly*