CLASS: IMSC   SEMESTER:VI
BRANCH: IMSC   SESSION : SP/2019

SUBJECT: IMF6003 FOOD ENGINEERING III

TIME: 1.5 HOURS   FULL MARKS: 25

INSTRUCTIONS:
1. The total marks of the questions are 30.
2. Candidates may attempt for all 30 marks.
3. In those cases where the marks obtained exceed 25 marks, the excess will be ignored.
4. Before attempting the question paper, be sure that you have got the correct question paper.
5. The missing data, if any, may be assumed suitably.

Q1	(a)	Discuss Zeroth law of thermodynamics.	[2]
	(b)	Derive equations of pdV-work at constant pressure and constant volume processes?	[3]
Q2		Derive equations of mass and energy balance for open systems and explain the various terms in it.	[5]
Q3	(a)	Write down the second law of thermodynamics.	[2]
	(b)	Discuss Carnot cycle with a neat sketch.	[3]
Q4		Discuss Carnot theorems.	[5]
Q5		Discuss elementary vapor compression refrigeration cycle with a neat sketch.	[5]
Q6	(a)	Discuss the applications of refrigeration in food processing, preservation and distribution.	[2]
	(b)	Discuss the different methods of producing low temperatures.	[3]

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