

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)**

**CLASS: I MSc
BRANCH: FOOD TECHNOLOGY**

**SEMESTER : IX
SESSION : MO/19**

SUBJECT: SAF3005 FOOD PRODUCT DEVELOPMENT AND SENSORY EVALUATION
TIME: 3:00 HOURS **FULL MARKS: 60**

INSTRUCTIONS:

1. The question paper contains 7 questions each of 12 marks and total 84 marks.
 2. Candidates may attempt any 5 questions maximum of 60 marks.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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- Q.1(a) Why do we want to manufacture (Develop) food? Describe the terms 'Idea generation & screening' and 'Market research'? [6]
- Q.1(b) Describe the stages required for a New Product Development? [6]
- Q.2(a) What are the purposes of marketing research? What are the benefits of A product line extension and Brand extension? [6]
- Q.2(b) Describe the terms Traditional Foods and Unconventional foods and their sources? [6]
- Q.3(a) What do you mean by Food production system? Write about the treatments required for the purpose of storage of cereals? [6]
- Q.3(b) What is current status of Indian Food Industry and what are the different categories (on the basis of turnover)? [6]
- Q.4(a) Define the term 'sensory evaluation'? Describe the process of Affective Testing? [6]
- Q.4(b) Write about disorders of the tongue and disorders of Olfaction? [6]
- Q.5(a) Describe the different types of sensory tests which are used for panel selection, what should be the qualifications for the screening of a panelist? [6]
- Q.5(b) Describe the different tests those can be adopted under different conditions? [6]
- Q.6(a) What do you mean by Hedonic scale? Differentiate between Affective Test and Analytical (Effective) Tests? [6]
- Q.6(b) How you can design a sensory laboratory? [6]
- Q.7(a) Why do we need sample presentation? What is importance of Statistical Methods and Interpretation in sensory evaluation? [6]
- Q.7(b) Calculate the d^2 and t value from the data given in table as intensity scores for texture of two products measured by 10 panellists on a 25 point? Compare the quality of Product A from Product B on the basis of calculated t value. [6]

Panellist	Sample ID		Difference (d)	d^2
	Product A	Product B		
1	20	22	2	
2	19	20	1	
3	18	16	-2	
4	22	18	-4	
5	17	21	4	
6	20	23	3	
7	19	19	0	
8	16	20	4	
9	21	22	1	
10	19	20	1	