

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION SP2023)

CLASS: IMSc
BRANCH: FT

SEMESTER : IV
SESSION : SP2023

SUBJECT: FT209 FOOD ANALYSIS

TIME: 02 Hours

FULL MARKS: 25

INSTRUCTIONS:

1. The question paper contains 5 questions each of 5 marks and total 25 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates
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		CO	BL
Q.1(a)	Compare Accuracy and Precision? Explain them with examples	[2]	1 I/VIII
Q.1(b)	Define standard deviation? Explain its relationship with Coefficient of variation?	[3]	1 IX/I
Q.2(a)	Describe the different sources of errors such as Systematic error and Random errors?	[2]	2 I
Q.2(b)	Explain the necessity of Calibration and standardization of instrument before doing experiment?	[3]	1 I
Q.3(a)	Describe the precautions are to be taken during sampling?	[2]	1 I
Q.3(b)	Describe Lambert and Beer's Law	[3]	2 I
Q.4(a)	Describe the advantages and disadvantages of Titrimetric Method	[2]	2 I
Q.4(b)	Write three important applications of Gravimetric method in food analysis.	[3]	2 IX
Q.5(a)	Describe the use FTIR spectroscopy to detect the functional groups present in Food sample?	[2]	2 V
Q.5(b)	Describe the limitations of optical microscopic technique? Describe the SEM/TEM techniques in food analysis?	[3]	1 V

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