

R 87 Practical Exercises

Calculating T1 & T2

Questions

Product type	Nominal quantity	T1 error	T2 error	Lot size	Sample size	Number of prepackages allowed with T1 error
Bag of rice	500 g			3000		
Chocolate bar	75 g			1000		
Box of cereal	1.125 kg			2250		
Bag of cement	15 kg			200		
Moisturiser	35 mL			800		
Soft drink bottle	500 mL			1300		
Can of beer	330 mL			500		
Tin of paint	10 L			80		

Tare Procedure Exercise

Questions

Nominal quantity	Tare Weights (g)	Average Tare Mass (ATM)	Scenario 1, 2 or 3	Next action
330 mL	10.1, 10, 10.5, 10.3, 10.2, 10.5, 10, 10 10.1, 10.2			
50 g	1.2, 1.1, 1.1, 1.1, 1.1, 1.2, 1.2, 1.1, 1.1, 1.1			
1 kg	75, 75.6, 75.3, 76, 76.5, 76, 74.7, 78, 75, 75.4			
50 kg	225, 226, 223, 222, 224, 225, 226, 220, 221, 223			

Calculating T1 & T2

Answers

Product type	Nominal quantity	T1 error	T2 error	Lot size	Sample size	Number of prepackages allowed with T1 error
Bag of rice	500 g	15 g	30 g	3000	98	5
Chocolate bar	75 g	4.5 g	9 g	1000	98	5
Box of cereal	475 g	7.125 g	14.25	2250	98	5
Bag of cement	15 kg	150 g	300 g	200	64	3
Moisturiser	35 mL	3.15 mL	6.3 mL	800	98	5
Soft drink bottle	500 mL	15 mL	30 mL	1300	98	5
Can of beer	330 mL	9.9 mL	19.8 mL	500	81	4
Tin of paint	10 L	150 mL	300 mL	80	47	2

Tare Procedure Exercise

Answers

Nominal quantity	Tare Weights (g)	Average Tare Mass (ATM)	Scenario 1, 2 or 3	Next action
330 mL	10.1, 10, 10.5, 10.3, 10.2, 10.5, 10, 10 10.1, 10.2	10.19	1	Proceed with reference test
50 g	1.2, 1.1, 1.1, 1.1, 1.1, 1.2, 1.2, 1.1, 1.1, 1.1	1.13	1	Proceed with reference test
1 kg	75, 75.6, 75.3, 76, 76.5, 76, 74.7, 78, 75, 75.4	75.75	1	Proceed with reference test
50 kg	225, 226, 223, 222, 224, 225, 226, 220, 221, 223	223.5	1	Proceed with reference test

R 87 Practical Exercises

Group exercise – mock reference test:

Reference Test – Packed by Weight	
Date	
Time	
Manufacturer / Packer Name (Trade & Registered Business)	
Address (Location of Inspection & Registered Business)	
Inspector Name	
LMO Reference	
Random Times or Random Numbers	
Product Name	
Nominal Quantity (Q_{nom})	
Batch Number / Lot Identification	
Number in Lot (N)	
Sample Size (n)	
T1 Error	
T2 Error	
Number of T1 Error Samples Permitted	
Tare Weights	
Gross Weights	
Average Quantity / Mean	
Standard Deviation	
Corrected Sample Mean	
Result	

Site Visit – Information to Gather and Attain

Pre Inspection Information	
Manufacturer / Packer Name (Trade & Registered Business)	
Contact Name, Email, Phone Number	
Agreed Date & Time of Inspection	
Address (Location of Inspection & Registered Business)	
Number of Packing Lines	
Total Output per Hour, Day, Month, Year	
Types of Product Lines	
Packed by Weight, Volume, Length, Area and/or Number	
Range of nominal quantities packed to	
Determine Product(s) to be Inspected	
Quantity Checks Completed by Packer	
Test Equipment Required	
Health and Safety Considerations	
Personal Protective Equipment Required	
Assistance Required	
Other Packages to be Inspected	
Weighing and/or Measuring Equipment to be Inspected	

Site Visit – Reference Test Information

Reference Test – Packed by Weight	
Date	
Time	
Manufacturer / Packer Name (Trade & Registered Business)	
Address (Location of Inspection & Registered Business)	
Inspector Name	
LMO Reference	
Random Times or Random Numbers	
Product Name	
Nominal Quantity	
Batch Number / Lot Identification	
Number in Lot	
Sample Size	
T1 Error	
T2 Error	
Number of T1 Error Samples Permitted	
Tare Weights	
Gross Weights	
Average Quantity / Mean	
Standard Deviation	
Corrected Sample Mean	
Result	

Post Reference Test Information:	
Pass / Fail	
Request Quantity Check Documentation	
Processes and Procedures	
Staff Training	
Advise on Due Diligence Defence	
Take Enforcement Action	

Comments	Notes

For information only

Reference Test – Packed by Volume:	
Date	
Time	
Manufacturer / Packer Name (Trade & Registered Business)	
Address (Location of Inspection & Registered Business)	
Inspector Name	
LMO Reference	
Random Times or Random Numbers	
Product Name	
Nominal Quantity	
Batch Number / Lot Identification	
Number in Lot	
Sample Size	
T1 Error	
T2 Error	
Number of T1 Error Samples Permitted	
Tare Weights	
Temperature	
Density	
Gross Weights	
Average Quantity / Mean	
Standard Deviation	
Corrected Sample Mean	
Result	

Post Reference Test Information:	
Pass / Fail	
Request Quantity Check Documentation	
Processes and Procedures	
Staff Training	
Advise on Due Diligence Defence	
Take Enforcement Action	

For information only

Reference Test – Packed by Length, Area or Number:	
Date	
Time	
Manufacturer / Packer Name (Trade & Registered Business)	
Address (Location of Inspection & Registered Business)	
Inspector Name	
LMO Reference	
Random Times or Random Numbers	
Product Name	
Nominal Quantity	
Batch Number / Lot Identification	
Number in Lot	
Sample Size	
T1 Error	
T2 Error	
Number of T1 Error Samples Permitted	
Actual Quantity	
Average Quantity / Mean	
Standard Deviation	
Corrected Sample Mean	
Result	

Post Reference Test Information:	
Pass / Fail	
Request Quantity Check Documentation	
Processes and Procedures	
Staff Training	
Advise on Due Diligence Defence	
Take Enforcement Action	