

## INSPECTION AND SAMPLING REVIEW QUESTIONS

In addition to the lecture slides, read the following attachments posted on blackboard to answer the questions below.

- Inspection Methods, excerpt from Certified Quality Inspector Handbook
- Sampling Methods, excerpt from Juran's Quality Handbook

### A. Qualitative versus Quantitative

List 3 qualitative and 3 quantitative aspects that could be used when inspecting a pair of pants.

Qualitative	Quantitative

### B. Sampling

- When determining product lot acceptance both producer's risk and consumers risk need to be considered. Define producer's risk versus consumer's risk and describe the difference.

**C. Determining Inspection Points:**

To understand an automated baking process, view the following video that describes how croissants are manufactured. <https://www.youtube.com/watch?v=2FuNkp0hLMA>

A flow chart documenting the steps in the video is also included on blackboard and can be useful for taking notes when viewing the video.

**Activity -**

The flowchart on page 3 describes a cinnamon bun manufacturing process. The manufacturing process runs 3 shifts (24 hours), 5 days per week. Determine where inspections can/should take place to ensure the Customer receives a consistent product at grocery stores across the country.

Identify at least 3, but no more than 6 inspection points in the attached process. The inspection can be conducted by either a person or as part of the automated process. The inspection points can be either:

- ✓ Incoming Material inspections
- ✓ Process Start-up (set-up)
- ✓ In-process
- ✓ Final product

For each inspection point selected provide the following information:

- Rationale for selecting location, include comments regarding consumer and producer's risk.
- What will be inspected?
  - ✓ Are there safety considerations?
  - ✓ How will the sample be obtained?
- Is the inspection related to process control (machines are doing the work) or product control (measured by personnel)?
- When will the inspection(s) be conducted?  
Example: at start-up only, in-process every 2 hours, just prior to release
- How will the inspection be conducted?
  - ✓ Visual, measurement, automated
  - ✓ quantitative or qualitative
  - ✓ Destructive or non-destructive
  - ✓ 100% or sampled

## CINNAMON BUN MANUFACTURING PROCESS

