

## Food Safety Laboratory Capacity Building

### *Evaluation 2*

1. Please describe the concept of “fit-for-purpose” for an analytical method in a regulatory food safety laboratory.
2. What differentiates direct and reverse phase liquid chromatography?
3. Please describe the difference between an isocratic and a gradient run in LC?
4. In GC equipped with a vaporization injector, what is the part that needs cleaning most often, and describe its purpose.
5. Please list at least one characteristic of a sample that makes it amenable to be analyzed using the following detectors:
  - a. Fluorescence
  - b. UV/VIS or PDA (you can choose)
  - c. Mass spectrometer
  - d. ECD
6. How can you reduce the back pressure in a liquid chromatograph (please provide at least 2 options)
7. Please describe at least one impact of increasing the column length in chromatography (gas or liquid)
8. Please describe at least one advantage and one disadvantage of using a column with smaller particles in LC.
9. Please list 3 types of additives that can be used in LC and their purpose.
10. Please explain why standards must be analyzed as part of our routine analytical batches