

**CARMEL COLLEGE OF ARTS, SCIENCE AND COMMERCE, NUVEM – GOA**  
**POST GRADUATE DEGREE STUDIES (AFFILIATED TO GOA UNIVERSITY)**

**M.Sc. (II) Food Technology (Semester III) Examination, February 2022**

**FTC 105: LAB IN FOOD ANALYSIS AND FOOD MICROBIOLOGY**

**Max marks: 30**

**Duration: 4 hours**

**Date: 25<sup>th</sup> February 2022**

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**Q1. Perform the experiment assigned to you.**

**10 marks**

**A. Determine the concentration of Iron in the given food sample \_\_\_\_.**

Report the principle, observation, calculation, result and interpretation

Given:

Concentration of standard stock solution: 0.1 mg/mL

Concentration and O.D. of working solution:

Standard concentration (mg/mL)	O.D.
0	0.00
0.01	0.24
0.02	0.47
0.03	0.59
0.04	0.81
0.05	0.99

**OR**

**B. Estimate the concentration of Reducing sugars in the given food sample \_\_\_\_.**

Report the principle, observation, calculation, result and interpretation.

Given:

Weight of standard glucose = 1 g

Titre of standard glucose = 4.9 mL

Fehling's factor = 0.375

Sample dilution = 50 fold

**Q2. Identify and report the Gram characteristic of the given bacteria isolated from a contaminated street food sample.**

**6 marks**

Write the principle, protocol (flowchart), result and interpretation.

**Q3. The given plate contains pathogenic bacteria isolated when 50  $\mu$ L of seafood sample was plated on 30 mL EMB agar. 4 marks**

- a. Comment on the specificity of the medium.
- b. Calculate the viable count.
- c. Which Genus could these microorganisms belong to?
- d. What could be a possible reason for the contamination?

**Q4. Viva 5 marks**

**Q5. Journal 5 marks**

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