

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

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

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

**Max marks: 30**

**Duration: 4 hours**

**Date: / / 2022**

**Q1. Perform the experiment assigned to you. 10 marks**

- A. Estimate the concentration of Phosphorous in the given food sample \_\_\_\_.**  
Report the principle, observation, calculation, result and interpretation

Given: Concentration of standard stock solution = 0.2 mg/mL  
Concentration and O.D of working solution:

Standard concentration (mg/mL)	O.D
0	0.00
0.04	0.10
0.08	0.26
0.12	0.38
0.16	0.50
0.20	0.63

**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 = 5.1 mL

Fehling's factor = 0.380

Sample dilution = 50 fold

**Q2. Characterize the food spoilage organisms in the given food samples using 10 marks**  
**one of the following techniques assigned to you.**

- A. Gram staining.
- B. Fungal staining.
- C. Viable count technique.

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

**Q3. Viva 5 marks**

**Q4. Journal 5 marks**

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