

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: 26th February 2022

Q1. Perform the experiment assigned to you.

10 marks

**A. Estimate the concentration of Proteins present in the given sample _____
by Biuret Method.**

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

Given:

Concentration of standard stock solution: 1 mg/mL

Concentration and O.D. of working solution:

Standard concentration (mg/mL)	O.D.
0	0
1	0.08
2	0.14
3	0.21
4	0.27
5	0.34
6	0.42

OR

B. Estimate the phosphorous concentration in the given food sample _____.

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

Given: Concentration of standard stock solution: 0.2 mg/mL

Concentration and O.D of the working solution:

Standard concentration (mg/mL)	O.D
0.00	0
0.04	0.13
0.08	0.29
0.12	0.41
0.16	0.52
0.20	0.66

Q2. Identify and report the genus of the given fungal species isolated from a stale food sample. 6 marks

Write the principle and draw a neat labelled diagram of your observation.

Q3. A food analysis officer analyses a seafood sample that has been contaminated with *Vibrio cholerae*. In order to study the morphology of the organism, he performs Gram staining as a preliminary screening method. 4 marks

Answer the following questions with respect to this technique:

- a. If the iodine step were omitted in the Gram staining procedure, what colour would you expect the result to be?
- b. Why did the food analysis officer counter stain the slide with safranin?
- c. At what magnification would the organism be best studied using a light microscope and why?
- d. What should be the expected result for *Vibrio cholerae*?

Q4. Viva 5 marks

Q5. Journal 5 marks
