

Name. James Chan

**B.VOC. DEGREE EXAMINATION, JUNE 2018**

## Sixth Semester

# ANALYTICAL METHODS IN FOOD PROCESSING

(For B.Voc. Programme in Food Processing Technology)

Time : Three Hours

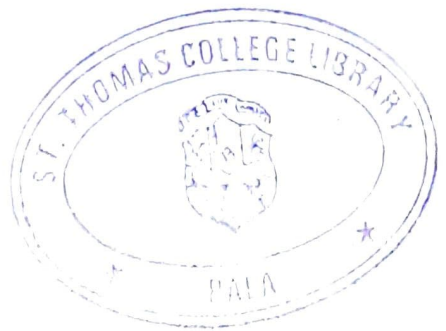
Maximum : 80 Marks

### Part A (Short Answer Questions)

**Answer all questions.**

1 mark each.

- ✓ 1. TLC.
- ✓ 2. A Dye for visualizing DNA.
- ✓ 3. Active site.
- ✓ 4. Zwitter ions.
- ✓ 5. Co enzymes.
- ✓ 6. Induced fit theory.
- ✓ 7. Mobile phase.
- ✓ 8. Absorption spectrum.
- ✓ 9. Rf value.
10. Radioactive probe.



(10 × 1 = 10 marks)

### Part B (Answer briefly)

*Answer any eight questions.*

2 marks each.

11. Partition coefficient.
- ✓ 12. Uses of Silica gel.
- ✓ 13. Lock and key theory.
- ✓ 14. Regulation of reaction rate.
- ✓ 15. Isoenzymes.
16. Allosteric inhibition.
- ✓ 17. HPLC.

**Turn over**

18. Reaction mixture.
- ✓19. GLC.
20. Ion exchange chromatography.
- ✓21. Radio tracer technique.
- ✓22. Uses of IR spectrum.

(8 × 2 = 16 marks)

### Part C (Short Essay Type Questions)

Answer any **six** questions.

4 marks each.

- ✓23. Give an account on factors that affect the enzyme activity.
- ✓24. Write an account on GC and GLC.
25. Explain the importance of Column Chromatography.
- ✓26. Write a note on protein separation in SDS PAGE.
- ✓27. Write about Fluorimetry.
28. Explain the principle and uses of NMR.
- ✓29. Explain how enzymatic activity can be measured.
30. Write about liquid scintillation counter.
- ✓31. Give an account on catalytic effect of enzymes.

(6 × 4 = 24 marks)

### Part D (Long Essays)

Answer any **two** questions.

15 marks each.

- ✓32. Explain Chromatography. Mention application of chromatography in food industry.
- ✓33. What is electrophoresis? Explain different types of electrophoresis.
34. Explain the principles and functioning of atomic absorption, atomic emission and uv visible spectrophotometer.
35. Write an account on radioactivity counters.

(2 × 15 = 30 marks)