



Register Number:

Date:

ST. JOSEPH'S COLLEGE (AUTONOMOUS), BENGALURU-27

M. Sc. CHEMISTRY - III SEMESTER

SEMESTER EXAMINATION: OCTOBER 2021

(Examination conducted in January-March 2022)

CHOE 9518 - LIFE'S LABORATORIES

Time- 1 1/2 hrs

Max Marks-35

This paper contains three printed pages and three parts

PART – A

(10 X 1 = 10)

Answer ALL questions

1. A substance is intentionally added to improve the taste of food is called as
 - a) Food additive
 - b) Food adulterant
 - c) Food contaminant
 - d) Food material
2. What are the two branches of sciences are incorporated in molecular gastronomy?
 - a) Chemistry and physics
 - b) Chemistry and botany
 - c) Botany and physics
 - d) Chemistry and microbiology
3. Effervescence or fizz in beverages is due to
 - a) Hydrogen sulfide
 - b) Nitrous oxide
 - c) Oxygen
 - d) Carbon dioxide
4. Who is the father of finger printing?
 - a) Edmond Locard
 - b) Albert Osborn
 - c) Leone Lattes
 - d) Francis Galton
5. Chromatography technique was first reported by
 - a) Martin
 - b) Mikhail Tswett
 - c) Edger Lederer
 - d) Archer

6. What are the factors effecting electrophoresis mobility?
- Charge
 - Size
 - Shape
 - All the above
7. The sleep wake cycle is an example of
- Circadian rhythm
 - Ultradian rhythm
 - Infradian rhythm
 - None of the above
8. What are the factors influences the process of flowering in plants?
- Photoperiod
 - Water in the soil
 - The acidity of the soil
 - Amount of green pigment
9. Green chemistry use feedstock derived from
- Chemicals
 - Organic compounds
 - Plants
 - Inorganic materials
10. The main aim of green chemistry is to reduce
- Pollution
 - Temperature
 - Efficiency
 - properties

PART - B

(5 X 2 = 10)

Answer any FIVE questions.

11. Name any four important constituents of food?
12. What are the functions of food additives?
13. List the various branches of forensic science.
14. What are the roles of chemist in forensic science laboratory?
15. What is biological clock?
16. What are the various types of chemical industries?
17. What are the various steps involved in pollution prevention?

PART - C

(3 X 5 = 15)

Answer any THREE questions.

18. What are the impacts of chemistry on your daily life?
19. What are preservatives? Give examples. Mention the side effects of preservatives.
20. With neat labeled diagram, explain the atomic absorption spectroscopy.
21. What are the consequences of sleep deprivation?
22. What are the advantages of green methods over conventional methods?