

**(FOR THE CANDIDATES ADMITTED**

20PCY414

**DURING THE ACADEMIC YEAR 2020 ONLY)**

**REG.NO. :**

**N.G.M.COLLEGE (AUTONOMOUS): POLLACHI**

**END-OF-SEMESTER EXAMINATIONS: JULY 2022**

**M.Sc. CHEMISTRY**

**MAXIMUM MARKS: 70**

**SEMESTER: IV**

**TIME: 3 HOURS**

## PHYTOCHEMICAL TECHNIQUES AND HEALTH CHEMISTRY

## SECTION - A

**(10 X 1 = 10 MARKS)**

**ANSWER THE FOLLOWING QUESTIONS.**

**MULTIPLE CHOICE QUESTIONS.**

**(K1)**

- Which one of the methods is used for the fast extraction of phytochemicals?
  - cold extraction
  - Hot extraction
  - liquid-liquid extraction
  - reduced pressure extraction
- Solvent used for recrystallization of organic compounds \_\_\_\_\_.
  - methanol
  - water
  - $\text{CCl}_4$
  - All the above
- Which vitamin deficiency causes Scurvy?
  - Vitamin A
  - Vitamin C
  - Vitamin B1
  - Vitamin D
- Easiest method to know completion/separation of compounds/reactions \_\_\_\_\_.
  - Column Chromatography
  - TLC
  - Crystallization
  - None
- Which of the following is the instant energy provider \_\_\_\_\_.
  - carbohydrates
  - Glucose
  - sucrose
  - proteins

**ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES**

(K2)

6. What are the reasons for ulcers?
7. Write any two Biological functions of carbohydrates
8. What are flavonoids? Why are they important?
9. Write down simple distillation
10. Write the causes of night blindness

## SECTION – B

**(5 X 4 = 20 MARKS)**

**ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)**

11. a) Describe in detail cold extraction strategies of drugs/natural products.  
(OR)  
b) Write a short note on principles and technique of simple distillation.
12. a) How will you remove impurities by Simple crystallization?  
(OR)  
b) Write down the solvents used for crystallization.

(CONTD .... 2)

13. a) Explain preliminary methods of identification of extracts.  
(OR)  
b) How is TLC useful for identification and purification of drugs?
14. a) Relate how health and hygiene keep us active with examples.  
(OR)  
b) Classify carbohydrates with examples.
15. a) Brief the types and causes of jaundice.  
(OR)  
b) Describe in detail the causes and consequences of diabetes.

**SECTION - C****(4 X 10 = 40 MARKS)****ANSWER ANY FOUR OUT OF SIX QUESTIONS**

**(16<sup>th</sup> QUESTION IS COMPULSORY AND ANSWER ANY THREE QUESTIONS  
(FROM Qn. No: 17 to 21) (K4 (or) K5)**

16. Explain the procedure for antibacterial, antifungal and antioxidant activities.
17. Illustrate the food toxicants with examples.
18. Classify Vitamins and explain its biological functions.
19. Describe the procedure for GC-MS, LC-MS methods.
20. Analyze the terms fractional distillation- steam distillation-rotary evaporation and centrifugation.
21. Explain the types and causes of common diseases.

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