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(FOR THE CANDIDATES ADMITTED SUB CODE 23PCY2E1

DURING THE ACADEMIC YEAR 2023 ONLY) REG.NO.

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

END-OF-SEMESTER EXAMINATIONS : MAY 2024

M.Sc CHEMISTRY MAXIMUM MARKS: 75

SEMESTER:II TIME : 3 HOURS

PART - III

GREEN CHEMISTRY,RESEARCH METHODOLOGY&CYBER SECURITY

SECTION – A (10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.(K1)

1. Which of the following is not a principle of Green Chemistry?
   a) Green solvents and auxiliaries b) Use of renewable feedstock
   c) Hazardous chemical synthesis d) Design for energy efficiency

2. Which of the following is not an ionic liquid?
   a)BF_4 b)PF_6 c)$(N(CN)_2)$ d)$CHCl_3$

3. A company wishes to ensure that no one else can use their logo. _____
   (a).Copy rights (b). Trade mark (c). Patent (d). Industrial designs

4. What is the most common method of distributing malware?
   a) Social engineering b) Physical media c) Email attachments d) Website downloads

5. Which of the following is a type of cyber security?
   a) Cloud Security b) Network Security c) Application Security d) All of the above

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES (K2)

6. What is green chemistry?
7. Give two examples of green solvents.
8. Where can copy right law can be applied?
9. What type of malware disguises itself as a legitimate program or file?
10. What is firewall?

SECTION – B (5 X 5 = 25 MARKS)

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

11. a) Write a note on solvent less reaction.

(OR)

b) Analyze the need for green chemistry.

12. a) Explain the importance of water as greener solvent with example.

(OR)

b) Discuss the reactions in ionic liquid.

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13. a) Write a note on IPR.

(OR)

b) Explain various reference styling methods

14. a) Investigate the ways to authenticate and discuss its processes.

(OR)

b) Write a note on window security.

15. a) Evaluate sand boxing and its importance.

(OR)

b) Summarize the uses of firewalls.

SECTION – C (5 X 8 = 40MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.(K4/K5)

16. a) Discuss the twelve basic principles of green chemistry

(OR)

b) Assess the atom efficient processes and atom efficiency

17. a) Review the phase transfer catalysts.

(OR)

b) Explain the uses of microwave and sonication methods with suitable examples.

18. a) Analyze and explain the types of research.

(OR)

b) Segregate the components of research paper and explain

19. a) Investigate CIA triad.

(OR)

b) Analyze the types and consequences of malicious software.

20. a) Explain the tools to check if a network is penetrated or not.

(OR)

b) Discuss the legal and ethical issues in web in cyber crime.