



POST GRADUATE AND RESEARCH DEPARTMENT OF CHEMISTRY
PERIYAR E.V.R. COLLEGE (AUTONOMOUS), TIRUCHIRAPPALLI-620 023. TAMIL NADU.

A Report on National Level E-Quiz on Green Chemistry

The **National Level E-Quiz on Green Chemistry** was organized by the Department of Chemistry in association with the Internal Quality Assurance Cell (IQAC) for the benefit of Students, Research Scholars, Faculty members during **18/06/2020 to 21/06/2020 (Four Days)**. Green chemistry is the new application of chemistry rules provides solutions to problems that mankind is faced with climate changes, sustainable agriculture, energy, toxics, depletion of natural sources. In order to provide a solution for this requirement, green chemistry rules and under standings should be primarily taken in the university curriculum and at all educational levels. Hence the title “Green Chemistry” was chosen for National Level E-Quiz. The quiz has 20 multiple choice questions (MCQ) and each question carries five points. The participants who scored 50% and above were issued E-certificates. Dr.B.R.Venkatraman, Associate Professor of Chemistry was represented as Programme Coordinator for this National Level E-quiz. Dr.J.Suganthi, Principal was the patron of this event. The convenor of this event was Dr.C.Thangavelu, Associate Professor and Head, Department of Chemistry. Dr.B.Senthilkumar, IQAC Coordinator, Assistant Professor, Department of Statistics, was associated this event. There is no registration fee to participate in this National Level E-Quiz. The E-quiz received 406 responses. The number of participants successfully completed is 373. The following figures (Fig. 1 and 2) provide gender-wise and designation-wise participants. The Certificate issued to participants is shown in Fig.3. The Green Chemistry MCQ’s with answers posted for E-Quiz event are also provided with this report.

Gender
406 responses

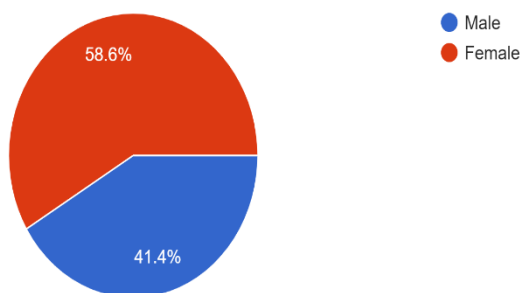


Fig. 1: Gender-wise Participants

Designation
406 responses

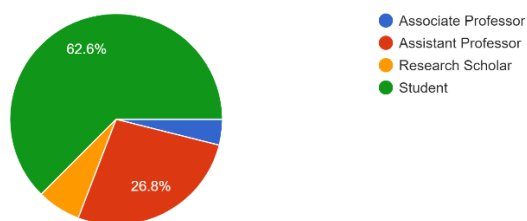


Fig. 2: Designation-wise Participants

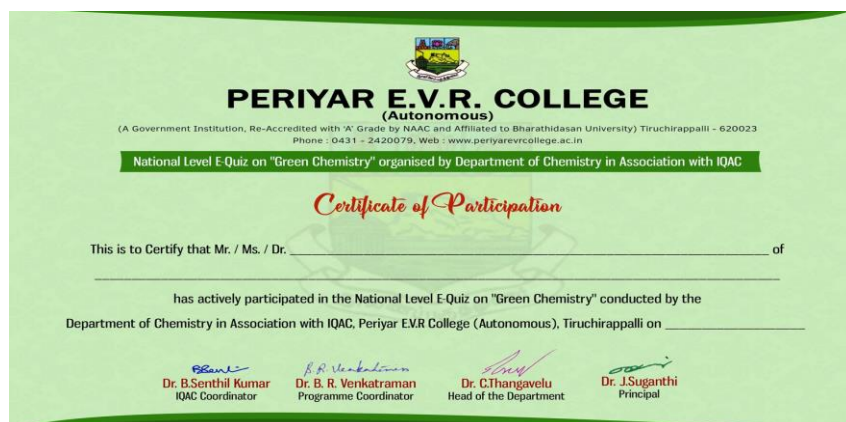


Fig. 3: Certificate issued to participants

National Level E-Quiz on Green Chemistry

1. After the use of chemicals, we must _____ them properly.
- Use
 - Reuse
 - Dispose
 - Store

Ans: c

2. Green chemistry applies across the _____ of a chemical product like design, manufacture and use.
- Life cycle
 - Properties
 - Uses
 - Efficiency

Ans: a

3. We must use feedstock derived from annually renewable resources or from _____
- Chemicals
 - Organic compounds
 - Abundant waste
 - Plants

Ans. c

4. One of the principles of green chemistry says that to produce _____ goods.
- Harmful
 - Commercial
 - Safer
 - Most used

Ans. c

5. Green chemistry reduces the _____ and protects the environment.
- Pollution
 - Temperature
 - Air
 - Water

Ans. a

6. This 'green' chemical is used in household cleaners to remove stains and is also a favorite dressing on salads!?
- Vinegar
 - Citric acid
 - Hydrochloric acid
 - Water

Ans. a

7. Shortly after mid-night in 1984, a reaction caused poisonous methyl isocyanate gas to leak from a factory in this city, _____ causing 3,700 deaths?
- a) Bhopal
 - b) Hinkley
 - c) Calcutta
 - d) Siberia

Ans. a

8. The term missing in Risk = Hazard x _____ is?
- a) Exposure
 - b) Cancer
 - c) Benign
 - d) Reactivity

Ans. a

9. Biodiesel is an example of which of the 12 Principles of Green Chemistry?
- a) Waste prevention
 - b) Use of renewable feedstocks
 - c) Use of catalysis
 - d) Safer solvents

Ans. b

10. _____ is an excellent 'green' solvent as well as a greenhouse gas?
- a) Methanol
 - b) CFCs
 - c) Carbon monoxide
 - d) Carbon Dioxide

Ans. d

11. The first listed of the 12 Principles of Green Chemistry is?
- a) Prevent waste
 - b) Catalysis
 - c) Atom economy
 - d) Benign solvents

Ans. a

12. Green chemistry aims to?
- a) Design chemical products and process that maximize profits
 - b) Design safer chemical products and processes that reduce or eliminate the use and generation of hazardous substances
 - c) Design chemical products and processes that work most efficiently.
 - d) Utilize non-renewable energy

Ans. b

13. Used to indicate the level of contaminants present, the term 'PPM' means?
- a) Parts-per-micron
 - b) Parts-per-million
 - c) Parts-per-mass
 - d) Parts-per-molecule

Ans. b

14. Green chemistry synthesis could also involve which of the following?

- a) High temperature
- b) Dichloromethane
- c) Fossil fuels
- d) Microwave

Ans. d

15. The following legislation gave birth to today's green chemistry initiatives?

- a) Clean Water Act of 1972
- b) Montreal Protocol of 1989
- c) Pollution Prevention Act of 1990
- d) Superfund Act of 1980

Ans. c

16. Environmental benefits of green chemistry include?

- a) Fewer raw materials and natural resources used
- b) Cleaner production technologies & reduced emissions
- c) Smaller quantities of hazardous waste to be treated and disposed of
- d) All of the above

Ans. d

17. Who is father of green chemistry?

- a) John Warner
- b) Paul Anastas
- c) Albert Einstein
- d) Joseph Breen

Ans. b

18. Soybean is used to replace traditional inks in printer cartridges, highlighting which of the Green chemistry principles?

- a) Atom economy
- b) Use of Renewable Feedstock's
- c) Reduce derivatives
- d) Prevent waste

Ans. b

19. _____, or VOCs, have been replaced and were banned in some paints?

- a) Versatile Organic Chemicals
- b) Volatile Organic Compounds
- c) Volatile Organic Components
- d) Versatile Odorless Component

Ans. b

20. The following is often referred to as the universal solvent and is a preferred green solvent?

- a) Water
- b) Methanol
- c) Ethyl Acetate
- d) Benzene

Ans. a