

કુલ સમય :- ૩૦ મીનીટ

કુલ પ્રશ્નો : ૩૫

વિદ્યાર્થીએ ટીક કરવાના પ્રશ્નો : ૨૫

નોંધ : વિદ્યાર્થીએ માત્ર ૨૫ પ્રશ્નો જ ટીક કરવાના રહેશે. જો વધારે ટીક કરેલ હશે તો પ્રથમ ૨૫ પ્રશ્નો જ ગણતરીમાં લેવામાં આવશે.

- Which of the following is a greener route to produce ethanal commercially?
a) Catalytic cracking of ethanol b) Oxidation of ethene with an ionic catalyst
c) Steam reforming of methanol d) Dehydrogenation of ethylene
- Name the conventional solvent that was used for dry cleaning purposes which later confirmed to be a suspected carcinogen.
a) Supercritical CO₂ b) Phenanthrene c) Tetrachloroethene d) Benzene aldehyde
- 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
- Green chemistry is the design of chemical products and processes that reduce or eliminate the use and generation of hazardous substances. Identify the technique used in this area.
a) Bioamplification b) Polymer manufacturing
c) Pesticide synthesis d) Use of sunlight and Microwave-assisted reaction
- Which of the following gas was traditionally used to bleach paper?
a) Sulfur b) Carbon dioxide c) Chlorine d) Fluorine
- Replacement of liquid CO₂ by halogenated solvent will result in less harm to groundwater.
a) True b) False
- Which of the following is a green solvent used for bleaching clothes?
a) Hydrogen peroxide b) Tetrachloroethene c) Benzene d) Toluene
- Identify the non-toxic and green solvent.
a) Liquefied carbondioxide b) Benzene c) Carbon tetrachloride d) Toluene
- The principles of green chemistry include eliminating _____ treatments.
a) Costly b) Harmful c) Hard d) Easy
- One of the principles of green chemistry says that to produce _____ goods.
a) Harmful b) Commercial c) Safer d) Most used
- After the use of chemicals, we must _____ them properly.
a) Use b) Reuse c) Dispose d) Store
- Green chemistry applies across the _____ of a chemical product like design, manufacture and use.
a) Life cycle b) Properties c) Uses d) Efficiency
- We must use feedstock derived from annually renewable resources or from _____.
a) Chemicals b) Organic compounds c) Abundant waste d) Plants
- Green chemistry improves _____ of chemical manufacturers.
a) Competitiveness b) Easiness of production c) Services d) Chemicals
- According to the green chemistry, the chemical involved in the production must be _____.
a) Non toxic b) Toxic c) Highly toxic d) Produces the toxic by products
- The green synthesis methods should have _____.
a) Low efficiency b) High harmful products c) Low energy requirements d) Low atom efficiency
- Green chemistry is also called as _____.
a) Life chemistry b) Environmental chemistry
c) Organic chemistry d) Sustainable chemistry

18. An ideal solvent facilitates the _____

- a) Mass transfer b) Dissolving property c) Combustion d) Titration

19. A desirable green solvent should be _____

- a) Costly b) Toxic c) Readily available d) Synthetic

20. The green solvent maximises the atom _____

- a) Molecular weight b) Electronic configuration c) Velocity d) Efficiency

21. What is the percentage atom utilisation?

- a) $(\text{mole wt of desired product} \times 100) / \text{mole wt of (desired product + total product)}$
b) $(\text{mole wt of desired product} \times 100) / \text{mole wt of (desired product)}$
c) $(\text{mole wt of desired product} \times 100) / \text{mole wt of (desired product + used product)}$
d) $(\text{mole wt of desired product} \times 100) / \text{mole wt of (desired product + by product)}$

22. The _____ reactions involves reorganisation of the atoms of the molecules.

- a) Addition reactions b) Rearrangement reactions
c) Reorganised reactions d) Elimination reactions

23. $\text{C}_2\text{H}_4 + 1/2 \text{O}_2 \rightarrow \text{C}_2\text{H}_4\text{O}$ (Ethylene oxide). This reaction will takes place under presence of catalyst. Find out the %atom economy.

- a) 25% b) 50% c) 75% d) 100%

24. _____ are greener than the conventional methods.

- a) Micro waves b) Electromagnetic waves
c) Ultra violet waves d) Radio waves

25. Self thermo regulated systems are called as _____

- a) Green methodologies b) Green synthesis c) Green principles d) Green concepts

26. _____ is the fundamental advantage of the sono chemistry in organic synthesis without solvents.

- a) High yields b) High energy requirements c) Use of solvents d) High wastes

27. The atom economy obtained for green synthesis is in the range of _____

- a) 62-70% b) 72-82% c) 40-50% d) 90-100%

28. Micro fluid reactor will minimise _____

- a) Solvent waste b) Efficiency c) Number of molecules d) Number of collisions

29. Green synthesis method is _____ than the conventional method.

- a) More costlier b) More efficient c) Slower d) Less efficient

30. In petrochemical industry, both in conventional method and green synthesis what is the first product obtained?

- a) 2-ethyl benzene b) Ethanol c) Methyl methacrylate d) 2-methyl propyl benzene

31. In green synthesis by avoiding harmful by products the catalyst used is _____

- a) Tungsten b) Benzene c) Cyclo hexane d) Adipic acid

32. In green synthetic methods, the high quality product with no _____ are produced.

- a) Good products b) Catalyst c) Reaction d) Contamination

33. The green synthesis methods should have _____

- a) Low efficiency b) High harmful by products
c) Low energy requirements d) Low atom efficiency

34. What is the starting material for nylon 6-6 is _____

- a) Acetic anhydride b) 2-methyl propyl benzene c) Adipic acid d) Nitric acid

35. In conventional method _____ is used.

- a) NaCl b) AlCl_3 c) Na_2SO_4 d) H_2SO_4