



12th Science : Chemistry
Green Chemistry and Nanochemistry,

DATE:

TIME: 1 hour

MARKS: 25

SEAT NO:

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Note:-

1. All Questions are compulsory.
2. Numbers on the right indicate full marks.

Section A

Q.1 Select and write the correct answer.

(4)

1. The prefix 'nano' comes from
A) French word meaning billion B) Greek word meaning dwarf
C) Spanish word meaning particle D) Latin word meaning invisible
2. Which of the following technique is used to determine absorption of functional group?
A) XRD B) SEM
C) TEM D) FTIR
3. The size of nanoparticles is in between nm.
A) 100 to 1000 B) 0.1 to 10
C) 1 to 100 D) 0.01 to 1
4. The concept of green chemistry was coined by
A) Born Haber B) Nario Taniguchi
C) Richard Feynman D) Paul T. Anastas

Q.2 Answer the following.

(3)

1. What is nanopollution?
2. What are green catalysts?
3. Define Nano chemistry.

Section B

Attempt any Four

- Q.3 Which nanomaterial is used in sunscreen lotion? Write its use. **(2)**
- Q.4 Give the full form (long form) of the names for following instruments: **(2)**
(a) XRD (b) TEM (c) STM (d) FTIR (e) SEM
- Q.5 How do nanotechnology plays an important role in water purification techniques? **(2)**
- Q.6 Draw diagram representing schematic classification of nanomaterials. **(2)**
- Q.7 Which flower is an example of self-cleaning? **(2)**
- Q.8 Write a note on Nanomaterial. **(2)**

Section C

Attempt any Two

- Q.9 Collect information about application of nanochemistry in cosmetics and pharmaceuticals. **(3)**
- Q.10 What are the harmful effects in household caused due to plastics? **(3)**

Q.11 Explain Multifunctional Materials and Their Impact on Sustainability. (3)

Section D
Attempt any One

Q.12 What do you mean by sol and gel? Describe the sol-gel method of preparation for nanoparticles. (4)

Q.13 What are the advantage and disadvantages of nanoparticles and nanotechnology? (4)