R8403	Sub. Code
	533508

M.Sc. DEGREE EXAMINATION, APRIL – 2023

Fourth Semester

Nano Science and Technology

NANOTOXICOLOGY

(CBCS – 2019 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** the questions.

1. Define- Nano.

2. Write any two physiochemical characteristics of nanomaterial.

3. How do nanoparticles interact with cells?

4. What does cellular uptake means?

5. What are the potential risks of nanomaterials to the human health?

6. In what ways humans are exposed to nanoparticles?

7. What is nanotoxicity?

8. Which test are in vivo tests?

9. What are the route for nanomaterial exposure?

10. What are the engineered nanomaterials?

Part B (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Write about Nano pollution.

Or

(b) Give the short notes on Aerosol.

12. (a) Discuss about the Oxidative stress.

Or

(b) Give the short notes on Immunotoxicity.

13. (a) How do nanosized materials enter into human body?

Or

(b) Give the short notes on toxicity of nano particle in eye.

14. (a) Write about the concepts of toxicity assessment.

Or

(b) Give the short notes on laboratory rodent studies.

15. (a) Write about the ethical implications in risk assessment.

Or

(b) What are the portals of entry and target tissue?

Part C

$(3 \times 10 = 30)$

Answer any **three** questions.

16. Briefly discuss about the Physiochemical characteristics of nanomaterials.

17. Write about Interactions of nanoparticles with cells.

18. How does nanoparticles deposit on respiratory tract?

19. What are the methodology for nanotoxicology?

20. What are regulations of engineered Nanomaterials in Europe and USA?

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