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## Eighth Semester B.E. Degree Examination, July/August 2022 Nanotoxicology

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions, choosing ONE full question from each module.**

### Module-1

- 1 a. Explain the effects of SWCNT exposure. (10 Marks)  
 b. Write a note on Systemic Translocation of inhaled particles. (10 Marks)

OR

- 2 a. What are the methods and challenges involved in the toxicity study of nanomaterials? (10 Marks)  
 b. What is Ecotoxicologic Studies? Explain in detail about the Ecotoxicity testing. (10 Marks)

### Module-2

- 3 a. What are the different nanomaterials present in Environment and their effect on Environment? (10 Marks)  
 b. How do you communication nanotechnological risks? (10 Marks)

OR

- 4 a. Describe the effect of nanomaterials in the Environment. Write a short note on Safety and Pollution control techniques. (10 Marks)  
 b. Write a note on Safety and Pollution Control techniques. (10 Marks)

### Module-3

- 5 a. Explain deposition and disposition of inhaled NSPS in the respiratory tract. (10 Marks)  
 b. Explain the exposure of NSPs via GI tract and Skin. (10 Marks)

OR

- 6 a. Explain neural uptake and Translocation of NSPs. (10 Marks)  
 b. Explain the translocation of NSPs to the circulatory system through endocytic path ways. (10 Marks)

### Module-4

- 7 a. Explain how the impact of nanotechnology on productivity, sustainability and equity was sustained. (10 Marks)  
 b. Explain how semiconductor scaling can be used as a model for study of nanotechnology commercialization. (10 Marks)

OR

- 8 a. Describe about nano bank with its three insights. (10 Marks)  
 b. Elucidate the non – nano effects of nanotechnology on the economy. (10 Marks)

### Module-5

- 9 a. Explain Ethical issues associated with Nanoscience and Nanotechnology. (10 Marks)  
 b. Write a note on Ethics and Law in a New frontier. (10 Marks)

OR

- 10 a. Describe the exploration of Patent matters associate with nanotechnology. (10 Marks)  
 b. Write a note on Negotiation over Quality of life in the nanotechnology initiative. (10 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
 2. Any revealing of identification, appeal to evaluator and/or equations written eg, 42-8 = 50, will be treated as malpractice.