17NT754

Seventh Semester B.E. Degree Examination, Jan./Feb. 2021 Nano Toxicology

Time: 3 hrs.

Max. Marks: 100

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

Module-1

What is ecotoxicologic studies? Explain in detail about the ecotoxicity testing. (10 Marks) 1 Write a note on systemic translocation of inhaled particles. (10 Marks) b.

- What are the methods and challenges involved in the toxicity study of nanomaterials? 2 a. (10 Marks)
 - Write a note on deposition of nanoparticles in the respiratory tract and the clearance. b. (10 Marks)

Module-2

- Write a note on nanomaterials pollution and nano materials in environment. (10 Marks) 3 a.
 - Elucidate the educational opportunities of nanotechnology and human resource for (10 Marks) nanotechnology.

- Write a note on safety and pollution control techniques. (10 Marks) 4 a.
 - What are the different nanomaterials present in environment and their effect on b. (10 Marks) environment?

<u> Module-3</u>

- Explain in detail the translocation of NSPs to the circulatory system through endocytic 5 (10 Marks) pathways.
 - Explain the translocation of NSPs in the blood circulation to bone marrow in mice. (10 Marks)

Eluacidate the exposure of NSPs via GI tract and skin, 6 a.

(10 Marks)

Explain neural uptake and translocation of NSPs.

(10 Marks)

- Module-4
- Elucidate the non-nano effects of nanotechnology on the economy.

(10 Marks)

Explain the impact of nanotechnology on productivity, sustainability and equity was (10 Marks) sustained.

OR

- Considering Malcom Baldrige criteria, how can you manage nanotechnology revolution? 8 (10 Marks)

Describe about nano bank with its three insights. b.

(10 Marks)

- Module-5 Write a note on exploration of patent matters associated with nanotechnology. 9 a.
 - Write a note on ethics and law in a new frontier. b.

(10 Marks) (10 Marks)

- Write a note on negotiations over quality of life in the nanotechnology initiative. (10 Marks) 10 a.
 - Describe about ethics of ethics. b.

(10 Marks)

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

b.