

CBCS SCHEME

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15NT754

Seventh Semester B.E. Degree Examination, Dec.2018/Jan.2019 Nanotoxicology

Time: 3 hrs.

Max. Marks: 80

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

Module-1

- 1 a. Write a note on deposition of nano-particles in the respiratory tract and the methods of clearance. (08 Marks)
b. Explain the nanoparticle exposure and cardiovascular effects based on the experimental data. (08 Marks)

OR

- 2 a. What are the methods and challenges involved in the toxicity study of nano-materials? (08 Marks)
b. What is ecotoxicologic studies? Explain in detail about the ecotoxicity testing. (08 Marks)

Module-2

- 3 a. What are the different nanomaterials present in environment and these effects on environment? (10 Marks)
b. How to perform preliminary analysis of media coverage on nanotechnology? (06 Marks)

OR

- 4 a. Write a note on nanomaterial pollution and nano-materials in environment. (08 Marks)
b. Describe the educational opportunities in nano-technology and human resources for the same. (08 Marks)

Module-3

- 5 a. Explain the rural uptake and translocation of NSPs. (08 Marks)
b. Explain the exposure of NSPs through GI tract and skin. (08 Marks)

OR

- 6 a. Explain in detail the translocation of NSPs to the circulatory system through endocyclic pathways. (08 Marks)
b. Elucidate deposition and disposition of inhaled NSPs in the respiratory tract. (08 Marks)

Module-4

- 7 a. How can you manage nanotechnology revolution considering Malcom Balbridge criteria? (08 Marks)
b. Explain non-nano effects of nano technology on economy. (08 Marks)

OR

- 8 a. Describe the nano bank with its three insights. (08 Marks)
b. Explain the utility of semiconductor sealing as a model for study of nanotechnology commercialization. (08 Marks)

Module-5

- 9 a. Elucidate ethical issues associated with nanoscience and technology. (08 Marks)
b. Write a note on negotiation over quality of life in the nanotechnology initiative (08 Marks)

OR

- 10 a. Write a note on ethics and laws in a new frontier. (08 Marks)
b. Write a note on exploration of patent matters associated with nanotechnology. (08 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.