

# CBCS SCHEME

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15NT754

Seventh Semester B.E. Degree Examination, Dec.2019/Jan.2020

## Nano-Toxicology

Time: 3 hrs.

Max. Marks: 80

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

### Module-1

- 1 a. Explain deposition and pulmonary clearance of insoluble solids. (08 Marks)  
b. Discuss about bio-persistence of inhaled solid material. (08 Marks)

OR

- 2 a. Write a note on respiratory particular matter exposure in detail. (08 Marks)  
b. Explain methodology for nano-toxicology in detail. (08 Marks)

### Module-2

- 3 a. Explain about nano-materials in environment in detail. (08 Marks)  
b. Write a note on human resources for nano-technology. (08 Marks)

OR

- 4 a. Discuss about safety and pollution control techniques. (10 Marks)  
b. Enumerate public perceptions and education to communicate nano- technological risks. (06 Marks)

### Module-3

- 5 a. Explain biological activities of nano-materials and nano-particles. (10 Marks)  
b. Discuss about neuronal uptake and translocation in detail. (06 Marks)

OR

- 6 a. Write a note on deposition of NSPs in the respiratory track. (08 Marks)  
b. Describe about exposure via gastro intestine track and skin. (08 Marks)

### Module-4

- 7 a. Explain about socio-economic impact of nano scale science in detail. (08 Marks)  
b. Give a short note on nano technology and zettabits. (08 Marks)

OR

- 8 a. Discuss about Moore's law with molecular electronics and nano-technology. (08 Marks)  
b. Describe about managing the nano-technology revolution in detail. (08 Marks)

### Module-5

- 9 a. Write note on ethical issues in nano-science and nanotechnology. (10 Marks)  
b. Give a note on nano pharmaceuticals. (08 Marks)

OR

- 10 a. Explain about patent matters associated with nano-technology. (08 Marks)  
b. Discuss about nano-medicine in detail. (08 Marks)

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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.