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Sixth Semester B.E. Degree Examination, June/July 2017
Nano Toxicology and Social Implications

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions, selecting atleast TWO questions from each part.

PART – A

- 1 a. Write a note on systematic translocation of inhaled particles. (08 Marks)
b. What are the methods and challenges involved in the toxicity study of nanomaterials. (12 Marks)
- 2 a. Explain in detail the mechanism of NSPs toxicity and reactive oxygen species mechanism of NSPs toxicity. (10 Marks)
b. Define Cytotoxicity and describe potential mechanism involved in cytotoxicity by nanomaterials. (10 Marks)
- 3 a. Describe the effect of nano materials in the environment. Write a short note on safety and pollution control techniques. (10 Marks)
b. Write a note on Nanomaterials in Environment and Nanomaterials pollution. (10 Marks)
- 4 a. Explain in detail the translocation of NSPs top the circulatory system through endocytic pathways. (10 Marks)
b. Explain Neural uptake and translocation of NSPs. (10 Marks)

PART – B

- 5 a. Explain the risk assessment, ethical and legal , social implications related with nanotechnology. (10 Marks)
b. How Nanotechnology can be used to improve quality , safety and security in agricultural production? (10 Marks)
- 6 a. Elucidate the non – nano effects of nanotechnology on the economy. (10 Marks)
b. Considering Malcolm Balbridge criteria, how can you manage nanotechnology revolution? (10 Marks)
- 7 a. Elucidate ethical issues associated with nano science and nano technology. (10 Marks)
b. Write a note on Exploration of patent matters associated with nanotechnology. (10 Marks)
- 8 a. How do you communicate the nano technological risks? (10 Marks)
b. Elucidate the educational opportunities of nanotechnology and human resources for nanotechnology. (10 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.