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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- February 2019

Ph.D

COURSE CODE: L-18MIWBT232

MAX. MARKS: 15

COURSE NAME: Nano-Biotechnology: Concept and Applications

COURSE CREDITS: 3

MAX. TIME: 1Hr

*Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means. XXXXXXXXXXXXXXXXXXXXXXXX*

**Part A: Answer the following Questions.**

1. Richard Feynman is often credited with predicting the potential of nanotechnology. What was the title of his famous speech given on December 29, 1959? [1] [CO-1]
2. Write a note on (a) Stefan boltzmann law (b) First postulate of quantum mechanics [2.5] [CO-1]
3. Write a note on chemical vapor deposition methods of nanoparticles synthesis [2] [CO-2]
4. Write a note on "material properties at nanoscale". [2] [CO-2]
5. What is buckyball? [1] [CO-1]
6. If you could paint a 5ml teaspoon of paint one nanometer thick, how much area would it cover? [2] [CO-1]
7. What is nanomaterial? Write down the application of nanomaterial in biomedical sciences [2.5] [CO-1]
8. Explain biological methods of nanoparticles synthesis [2] [CO-2]