NANOPHYSICS

1. Why storage of nanomaterials is a challenge? (2) {JUN 15 [GNE]}
2. Write short notes on (i) Quantum confinement (ii) Carbon nanotubes (CNTs). (2) {JUN 15 [GNE]}
3. Write major applications and disadvantages of nanotechnology. (2) {JUN -15[GNE]}
4. Define nanoscience and nanotechnology. (2) {JUN 15 [PTU]}
5. Discuss various techniques for synthesis of nanomaterials. (5) {JUN 15 [PTU]}
6. Write short note on carbon nanotubes. (3) {JUN 15 [PTU]}
7. Write four disadvantages of nanotechnology. (2) {DEC 14 [GNE]}
8. How can we synthesize nanomaterials? Explain various steps involved in Sol-Gel technique. (4) {DEC 14 [GNE]}
9. Name and explain two important factors responsible for distinguished properties of nanomaterials. (4) {DEC 14 [GNE]}
10. Give a brief and broad outline of sol-gel synthesis of nanomaterials. (2) {DEC 14 [PTU]}
11. Discuss various techniques of synthesis of nanomaterials. (5) {DEC 14 [PTU]}
12. Write short note on carbon nanotubes. (3) {DEC 14 [PTU]}
13. Explain optical and magnetic properties of nano materials. (4) {JUN 14 [GNE]}
14. Discuss in detail sol-gel technique for synthesis of nano-materials. (4) {JUN 14 [GNE]}
15. Write any two properties of carbon nanotubes. (2) {JUN 14 [GNE]}
16. Discuss briefly different methods used to synthesize the nanoparticles. (4) {JUN 14 [PTU]}
17. Give two properties of carbon nanotubes. (2) {JUN 14 [PTU]}
18. Differentiate between nanowire and nanotune. (2) {Dec 2013 [PTU]}
19. Justify that surface area to volume ratio increases while we go from bulk to nano scale. (4) {Dec 2013 [PTU]}
20. Demonstrate the composition of fullerene C_{60} structure and discuss its real world application(s). (4) {Dec 2013 [PTU]}
21. Give examples of one, two and three dimensional nanomaterials. (2) {Dec 2013 [GNE]}
22. How can nanomaterials be synthesized? Explain any technique in detail by giving its advantages and disadvantages. (4) {Dec 2013 [GNE]}
23. Write applications and potential risks of nanomaterials. (4) {Dec 2013 [GNE]}
24. What is electron confinement? (2) {Jun 2013 [PTU]}
25. "Surface area to volume ratio gets enhanced at nano scale." Comment. (4) {Jun 2013 [PTU]}
26. Discuss some applications of carbon nanotubes. (4) {Jun 2013 [PTU]}
27. Write two peculiar features which distinguish nano materials from normal materials. (2) {Jun 2013 [GNE]}
28. Discuss briefly different methods for synthesis of nanomaterials. (4) {Jun 2013 [GNE]}
29. What do you understand carbon nanotubes? How are these synthesized? (4) {Jun 2013 [GNE]}
30. What are nanomaterials? Explain. (2) {Dec 2012 [GNE]}
31. How can we synthesis nanomaterials? Explain Sol-Gel technique in details. (4) {Dec 2012 [GNE]}
32. What are carbon nanotubes? Discuss various applications of nanomaterials. (4) {Dec 2012 [GNE]}
33. What is quantum dot? (2) {Dec 2012}
34. Elaborate the concept of particle confinement in context of nanophysics. (4) {Dec 2012}
35. Elaborate the advantages of using Sol-Gel process for synthesizing nanomaterials. (4) {Dec 2012}
36. What is Nanophysics? (2) {June 2012}
37. What are advantages of synthesizing nanomaterials? (4) {June 2012}
38. Synthesis of nanotubes is a challenge. Comment. (4) {June 2012}
39. What are nano materials? (2) {Dec 2011}
40. What is Quantum confinement? (2) {Dec 2011}

41. What are advantages of synthesizing nano materials using Sol-Gel method? (4) {Dec 2011}
42. Advocate the utility of fullerene structure in reference to the synthesis of nanotubes. (4) {Dec 2011}