TELANGANA UNIVERSITY
S.S.R. DEGREE COLLEGE, NIZAMABAD (C.C:5029)
VI SEMESTER INTERNAL ASSESSMENT I EXAMINATIONS
PHYSICS (NANO SCIENCE) QUESTION BANK

I. Choose the correct Answers.

1. On the basis of dimensions nano materials are of _____ types [d]
a. One b. Two c. Three d. Four

2. Example of zero dimensional nano material [d]
a. Quantum dots b. Nano dots c. Fullerenes d. All

3. Example for two dimensional nano material [c]
a. Quantum dots b. Nano dots c. Grapheme d. None

4. The materials that are not confined to the nano scale in any dimension [c]
a. zero b. two c. three d. one

5. The diameter of quantum dots [c]
a. 1-100 nm b. 10-100 nm c. 2-10 nm d. None

6. The diameter of nano wire [a]
a. 1-100 nm b. 10-100 nm c. 2-10 nm d. None

7. Nano wires are optioned from a quantum well by the process of [a]
a. Lithography b. Photorithography c. Ballmilling d. None

8. Ballmilling method used to grainding materials like [d]
a. ores b. chemicals c. seramic d. all

9. In photolithography positive resist used to exposer makes it [a]
a. soluble b. insoluble c. both d. None

10. Density of states of nano material g(E) = _____ [b]
a. g(E) X N(E) b. g(E) = dN(E)/dE c. g(E) = dN(E) d. None

II. Fill in the blanks

1. Colloidal method is used to prepare gold
2. Vaccum diposition is a PVD process.
3. CVD is used to produce high purity and high performance solid materials.
4. In condensation M-OR + HO = M → M-O-M + R-OH (M = SI, Ti)
5. STM Scanning tunneling Microscope
6. TEM Transmission Electron Microscopy
7. Atomic force microscope uses laser source.
8. The quantum dots can be used in source TV's
9. The effect achieved by reducing the volume of a solid so that the energy levels within it becomes diserete is called electron confinement
10. Example of two dimensional nano material is nano rods, nano wires

III. Short Answers.

1. What is three dimensional nano material?
2. What are the uses of nanowire?

3. What is topdown process?
4. What are the steps in sotbel method?
5. Write disadvantages of Sem?