

PPSC Chemistry Part VII NanoChemistry Online Test

C-	Overstions	Anguara Chaine
Sr	Questions	Answers Choice
1	Nanoscience can be studied with the help of	A. Quantum mechanics B. Newtonain mechanics C. Macro dynamics D. Grophysics
2	What is abuckyball	A. A carbon molecule B. Nickname for Mercedes -Benz's futuristic concept car (CIII) C. Plastic explosives nanoparticle (C4) D. Concrete nanoparticle with a compressive strength of 20 nanonewtons(C20)
3	In confining and growing nano roade CNTs will act as.	A. Template B. Support C. Source of oxidant D. Sieve
4	Attention should be focused on qualitative changes in particle properties as a function of.	A. Particle numebrs B. Particle mass C. Particle size D. Particle density
5	The width of a typical DNA molecule isnm	A. 1 B. 2 C. 5 D. 10
6	The diameter of hydrogen atom isnm	A. 10 B. 1 C. 0.1 D. 0.01
7	Which ratio decides the efficiency nano substance.	A. Weight /volume B. Surface area/volume C. Volume/weight D. Pressure/volume
8	The ration of thermal conductivity of silver to that of a carbon nanotube is.	A. 100 : 1 B. 1 :100 C. 10:1 D. 1:10
9	A considerable number of atoms pertaining to the surface with the decreasing the particle size.	A. Increase B. Decrease C. No effect D. Both a and b
10	The full form of STM is	A. Scanning Tunneling Microscope B. Scientific Technical Microscope C. Systematic Technical Microscope D. SuperTensile Microscope
11	Which of these historical works of art contain nanotechnology.	A. Lycurgus cup B. Medieval stained glass windows in churches C. Damascus steel swords D. All of the above
12	Stablization of particles and their reactivity is affected by.	A. Surface properties B. Bulk properties C. Regardless to the surface properties D. No of particles
13	Chemical and physical properties of metal nano particles of atoms were observed to change periodically depending upon	A. Number of atoms in a particle B. Shape of particle C. type of organization D. All of the above
14	The capacity of normal human eye to see the smallest object is micro meter	A. 10000 B. 1000 C. 100

15	Formation of nano particles involves process lime	A. Foramtion of metal nuclei on different sizes. B. Interaction among the formed particles C. Both A and B D. No interaction among the nano particles synthesized
16	The orientation of a crystalline surface is confidently defined in terms of.	A. Lijima Indices B. Miller indices C. Clausen indices D. None
17	The hardest material found in nature is	A. Steel B. Topaz C. Diamond D. Quartz
18	Length of semiconductor nanorods are in the range of.	A. 1.50 nm B. 1-50 micro meter C. 100-500 nm D. 50-100 nm
19	The size of quantum dot ism	A. 5 B. 5 x 10 ⁻⁹ C. 5 x10 ⁻¹⁰ D. 5 x10 ⁻¹¹
20	What does 'F' stand for in AFM.	A. Fine B. Front C. Force D. Flux
21	Which of the microscope techniques is similar to the Atomic Force Microscopy (AFM)	A. Scanning Electron Microscopy B. Scanning Tunneling Microscopy C. Transmission Electron Microscopy D. None of the above
22	Who was the first scientist to describe that substance having Nano dimensions possess altogether different and unique properties.	A. Richard Feynamann B. Erick Drexler C. Archimedes D. Michael Faraday
23	1 nanometre = cm	A. 10 ⁻⁹ B. 10 ⁻⁸ C. 10 ⁻⁷ D. 10 ⁻⁶
24	Which of the following is class of nanorods	A. metals B. alloys C. Metal oxide and Metal sulphite D. All of the above
25	Egyptians were using to prepare make up for eyes.	A. Nanoaluminium B. Nanocopper C. Nanosteel D. Nanolead
26	1 meter = nm	A. 10 ⁹ B. 10 ⁻⁹ C. 10 ¹⁰ D. 10 ⁻¹⁰
27	The size of nanoparticles is between nm	A. 100 to 1000 B. 1 to 100 C. 0.1 to 10 D. 0.01 to 1
28	When fullerencs were discovered they were thought to be	A. First example of spherical aromatic molecule B. First example of spherical non aromatic molecule C. First example of diamond lime molecule D. None of the above
29	The prefiex 'nano' comes from a	A. French word meaning billion B. Greek word meaning dwarf C. Latin word meaning invisible D. Spanish word meaning particle
30	The diameter of a bucky ball is about	A. <div> o</div> 1 A B. 1 nm C. <div> o</div> 100 A D. 10 nm

31	Opticla tweezers	miniaturized laser beams B. use light to manipulate particles as small as single atom C. Are a nanotechnology bases tool for stamp collectors D. Don't exist
32	The particles of about 1 nm need activation energy to enter either aggregation processes or reactions to give to new chemicals.	A. Higher B. Lesser C. No D. All above
33	Who prepared and explained nano tubes for the first time.	A. Sumio Tijima B. Richard Smaley C. Erick Drexler D. Richard Feynamann
34	The width of a carbon nano tube is nm	A. 1 B. 1.3 C. 2.5 D. 10
35	The size of E coli bacteria is nm	A. 75000 B. 2000 C. 200 D. 5
36	Who coined the word nanotechnology.	A. Eric Drexler B. Richard Feynamann C. Sumio tijma D. Richard smalley
37	The suffix '-ene' in the name of fullerene shows the presence of in the molecule.	A. One triple bond B. One double bond C. Two single bonds D. Two triple bonds
38	When a large block of silicon wafer is reduced to smaller component and hence non material is formed this approach is called.	A. Bottom up B. Top down C. Left to right D. Right to left
39	Greeks and Romans had used nanoparticles in the manufacture of.	A. Cosmetics for eyes B. Medicines C. <div>Metals</div> D. Hair -dye
40	Fullerene or bucky ball is made up of carbon atoms.	A. 100 B. 20 C. 75 D. 60
41	The diameter of fly ash particles is micro meter	A. 5-10 B. 10-20 C. 20-30 D. 100
42	Alpha hematite nano tubes show dimensional magnetic ordering at temperature laser than 300 K.	A. 0 B. 1 C. 2 D. 3
43	In a bucky ball each carbon atom in bound in adjacent carbon atoms.	A. 1 B. 2 C. 3 D. 4
44	Which of the following does not apply to nanotechnology.	A. It is a general purpose technology B. It can be called Green technology C. Newtonian mechanics can describe it. D. It involves rearrangement of atoms
45	Nano particles may interact with the support to be.	A. Partially oxidized B. Partically reduced C. Both a and b D. None
46	are the extensions of bucky balls.	A. Goodesic domes B. Hexagons C. Carbon nanotubes D. AFM and STM
47	The electrical conductivity of a nano tube is times that of copper.	A. 10 B. 100 C. 1000 D. 1/100

48	"There is a plenty of room at the bottom" This was stated by	B. Albert Einstein C. Richard Feynman D. Eric Drexler
49	In Nano synthesis new unsual chemical reactions are due to.	A. Non equilibrium system B. Equilibrium system C. Isothermal system D. Adiabatic process
50	The smallest cluster of carbon atoms in Bucky balls known till today consists of carbon atoms.	A. 75 B. 20 C. 60 D. 15
51	How many oxygen atoms lined up in a now would fit in a one nanometer speace.	A. None an oxygen atoms is bigger than 1 nm B. One C. Seven D. None of the above
52	A diameter of human hair is approximately m	A. 75000 B. 75 C. 7.5 x 10 ⁻⁵ D. 7.5 x 10 ⁻⁹
53	What exactly is quantum dot	A. A semiconductor nanostructure that confines the motion of conduction band electrons, valence band holes or excitation in all three spatial directions B. The sharpest possible tip of an atomic force microscope C. A fictional term used in science fiction for the endpoints of wormholes D. Unexplained spots that appear electron microscopy images of nanostructures smaller than 1 nanometer
54	The physical methods of nano roads syntheses involves.	A. Top down approach B. Bottom up approach C. Left right approach D. Right left approach
55	The most important problem regarding nano chemistry	A. Elucidation of relationship between also and chemical reactivity of particle B. Determination of size of particle C. Determination of reactivity of particle D. Determination of physical properties of nano particles.
56	Nano technology in other words is.	A. Carbon engineeringB. Atomic engineeringC. Small technologyD. Microphysics
57	In compressive strength of a nanotube its tensile strength.	A. I less than B. Is greater than C. Is equal to D. Less than or equal to.
58	Which idea of envisioned the construction of nano robots	A. Building nano materials atom by atom B. Destruction of macromolecules to nano ones C. Bothe of the above D. None of the above
59	The tensile strength of a carbon nanotube is times that of steel.	A. 10 B. 25 C. 100 D. 1000
60	The thermal conductivity of an SWNT along length is watt/(m.k)	A. 35 B. 330 C. 386 D. 3500
61	20 micron = nm	A. 20 x10 ⁻⁹ B. 20000 C. 200 D. 20x10 ⁹
62	What is graphene.	A. A new material made from carbon nanotubes B. A one atom thick sheet of carbon

A. Issac Newton

63 In radial direction the thermal conductivity of a nano tube is _____ watt/(m.k)

64 Which of the following techniques is bulk technique.

C. Inis tilm made from fullerene
D. A software tool to measure and graphically respresent nanoparticles.

A. 3500
B. 385
C. 0
D. 350

A. Powder XRD
B. Single Crystal XRD
C. SEM
D. TEM