

Date.....
Name.....
WSU ID.....

Nanotechnology Safety Exam Questions

1) Which of the following particle sizes are considered as nanoparticles?

- a) Less than 100 μm diameter
- b) 1 to 100 μm
- c) 1 to 100 nm
- d) <200nm
- e) All of above

2) The way Nanomaterials do not enter the human body?

- a) Inhalation
- b) Ingestion
- c) Transportation
- d) Skin absorption
- e) Injection

3) Direct human health risk caused by a nanoparticle depends on

- a) Probability of exposure
- b) Concentration
- c) Duration
- d) Frequency
- e) All of above

4) _____ is not allowed in the laboratory.

- a) Covered shoe
- b) Long pants
- c) Food and Beverages
- d) Lab coat
- e) Tied-up long hair

5) Risk Analysis is

- a) An analytical process to provide information regarding undesirable events.
- b) The process of qualification of the probabilities and expected consequences for identified risk.
- c) Performed to understand the nature of unwanted, negative consequences to human life, health, property or the environment.
- d) All of these choices

6) Laboratory fume hoods are_____.

- a) Used as a storage area for chemicals.
- b) Allowed us to place power boards inside to do experiment easily.
- c) Allowed us to vent or dispose of hazardous materials through air dilution.
- d) The primary means of protection from inhalation of hazardous nanomaterials.

7) What is the best way to find out information regarding the toxicity of a specific nanomaterial?

- a) Check the SDS
- b) Talk to faculty/staff
- c) Call the manufacturer
- d) Follow the International Council on Nanomaterials (ICON) database

8) Toxicity of nanomaterials is not primarily dependent on

- a) Surface chemistry
- b) Particle size and shape
- c) Thermal conductivity
- d) Surface area

9) Which of following practice does not prevent inhalation?

- a) Aeration of the laboratory
- b) Fume hood
- c) Biosafety cabinets
- d) Respirator masks

10) Which of the following is true?

- a) Safety Data Sheets are only required for organic chemical compounds
- b) Employee who works with nanoparticles should receive basic safety information about the nanomaterials
- c) It's not necessary to document training
- d) Labeling is optional for nanoparticles

11) What is the best way to cleanup a small nanoparticle spill on the floor?

- a) Swiping
- b) Wet towel cleaning
- c) Washing with water
- d) Dusting and vacuuming

12) What should be the daily routine practice to prevent the cross contamination of laboratories?

- a) Removing gloves when left the room
- b) Changing the lab coat for each lab
- c) Washing hands
- d) All of above

13) If you have a question regarding your concerns of nanomaterials, ask_____

- a) Lab manager
- b) Department safety coordinator
- c) Office of environmental health and safety manager
- d) OSHA and NIOSH specialists
- e) All of above

14) What is the most effective practice when using protective gloves?

- a) Change gloves routinely when using nanomaterials or if contamination is suspected.
- b) Choose the darkest glove color to see any contaminations.
- c) Use always latex gloves
- d) Wash hands frequently

15) Disease associated with nanoparticle exposure on brain linked to:

- a) Asthma
- b) Bronchitis
- c) Heart disease
- d) Alzheimer's disease
- e) All of above

16) Users can throw away all materials contaminated with nanomaterials in the trashcan.

- a) True
- b) False

17) At nanoscale, there may be different and perhaps more intense reactions that may lead to fire or explosive hazards in a work environment.

- a) True
- b) False

18) All nanoparticles are considered to be hazardous and toxic!

- a) True
- b) False

19) Pouring the liquid waste with nanoparticles down to the drain is the best practice.

- a) True
- b) False

20) In order to minimize the potential health effects of nanoparticles, PPE may not be necessary.

- a) True
- b) False

21) Always work at least 16 inches inside of the front side of the fume hood.

- a) True
- b) False

22) Safety glasses and face shields cannot protect the workers against the aerosols released with pressure and other suspended particles

- a) True
- b) False