1. Products and materials can emit indoor air pollutants. Indicate whether each of the following statements about emissions are emissions is true or false:
   a. some kinds of particle board can emit formaldehyde  True  False
   b. gypsum dry wall can emits radon                True  False
   c. people normally exhale high concentrations of carbon monoxide True  False
   d. photocopiers can emit volatile organic compounds True  False
   e. air streams from forced-air heating systems can contain bacteria True  False
   f. paint, caulk, adhesives can emit ozone          True  False
   g. some natural woods can emit volatile organic compounds True  False

2. Name the main human effect of exposure to a high concentration of each of the following pollutants.
   a. Carbon monoxide ___________________________________________
   b. Ozone                                                        ___________________________
   c. Carbon dioxide ____________________________________________
   d. Formaldehyde ______________________________________________
   e. Mycotoxins ________________________________________________

3. Say if each of the following statements is true or false.
   a. the threshold limit value is the highest concentration of an indoor air pollutant which will cause any health problems True  False
   b. time-weighted average pollutant values approximate a person's exposure to indoor air pollutants over ea period of time True  False
   c. indoor air quality is defined by the absence of hazardous particles, fibers, organisms or gases in the air inside buildings True  False
   d. indoor air quality standards for pollutants are always based on the rate of carbon dioxide dilution by ventilation True  False

4. Say whether the following are symptoms of the "sick building" syndrome:
   a. headache Yes  No
   b. eyestrain Yes  No
   c. backache Yes  No
   d. lethargy Yes  No
   e. stomach ache Yes  No
   f. irritated skin Yes  No
5. Say whether each of the following is a building-related illness that can cause death?
   a. Asbestosis
   b. Sick building syndrome
   c. Humidifier fever
   d. Legionnaire's disease
   e. Aspergillosis (fungal contamination)
   f. Raynaud’s disease

   Yes   No

6. What are the two main types of mechanical air-handling systems in large office buildings?
   a. __________________________
   b. __________________________

7. What is the size (maximum diameter in microns of particles) stopped at each of the following points along the respiratory pathway?
   a. bronchial passages: _________________________
   b. nasal mucosa (nose): __________________________
   c. alveoli: __________________________

8. Indicate the major source of each of the following indoor air pollutants.
   a. radon
   b. carbon dioxide
   c. carbon monoxide
   d. formaldehyde

9. Briefly describe two ways that an investigator can distinguish between "sick building" syndrome (SBS) and building related illness (BRI)?
   a. __________________________
   b. __________________________

10. Indicate the three main reasons for ventilating buildings.
    a. __________________________
    b. __________________________
    c. __________________________

11. Name three locations where biological growth can occur inside a ventilation system?
    a. __________________________
    b. __________________________
    c. __________________________

12. Name three control strategies used in mitigating indoor air quality problems.
    a. __________________________
    b. __________________________
    c. __________________________
13. Say if each of the following statements is true or false:
   a. the EPA says that radon levels >4 picoCuries/L are safe \hspace{2cm} True False
   b. radon is only a problem in the basements of buildings \hspace{2cm} True False
   c. radon can be detected by its very distinctive odor \hspace{2cm} True False
   d. radon is heavier than air \hspace{2cm} True False
   e. fungal growth generally requires a RH below 85% \hspace{2cm} True False
   f. fungal spores can cause lung disease \hspace{2cm} True False
   g. bacteria require a RH below 90% to grow \hspace{2cm} True False
   h. endotoxin is produced by gram-negative bacteria \hspace{2cm} True False

14. What four questions should occupants be asked in investigating an IAQ problem (see I-BEAM)?
   a. 
   b. 
   c. 
   d. 

15. Mold thrives in the presence of water. Name 4 ways that indoor mold growth can be controlled
   a. 
   b. 
   c. 
   d. 

16. Say if each of the following statements is true or false:
   a. fungi spores require moisture, food and darkness to thrive \hspace{2cm} True False
   b. pollens easily penetrate to the alveolar region of the lungs \hspace{2cm} True False
   c. all fungi produce toxic metabolites (aflatoxins) that cause illness \hspace{2cm} True False
   d. gram-positive bacteria produce the most potent mycotoxins \hspace{2cm} True False

17. Say if each of the following statements is true or false:
   a. respiratory illness risks are always higher in air-conditioned buildings \hspace{2cm} True False
   b. cats can be a significant source of indoor allergen \hspace{2cm} True False
   c. 45% of people are allergic to dust mites \hspace{2cm} True False
   d. respirable dust always causes eye irritation \hspace{2cm} True False
   e. indoor floor dust can contain outdoor pesticides \hspace{2cm} True False

18. Say if each of the following statements is true or false:
   a. environmental tobacco smoke is a hazardous indoor air pollutant mixture \hspace{2cm} True False
   b. fresh air ventilation can reduce indoor air pollutant sources \hspace{2cm} True False
   c. airborne fiberglass can irritate the eyes, nose and skin \hspace{2cm} True False
   d. cockroaches produce an indoor allergen \hspace{2cm} True False
   e. children are always less susceptible than adults to biological contaminants \hspace{2cm} True False
   f. dust mites thrive in humid conditions above 70% RH \hspace{2cm} True False
   g. dust mite feces are < 5µ in size \hspace{2cm} True False
   h. Asbestos is only dangerous when it is inhaled \hspace{2cm} True False
   i. Eating iron and calcium reduces lead absorption in the body \hspace{2cm} True False
   j. Respirable particles are only dangerous when they are >10 µ in size \hspace{2cm} True False
   k. Mental development is impaired by lead levels as low as 1 µg/dl \hspace{2cm} True False