Robbins Review Questions - Chapter 9

1. What is the leading cause of global health loss?
    a. Ischemic heart disease
    b. Undernutrition
    c. Cancer
    d. Malaria
2. What is the leading cause of death in developed countries?
    a. HIV/AIDS
    b. Ischemic heart disease and cancer
    c. Ischemic heart disease and cerebrovascular disease
    d. Cancer and cerebrovascular disease
3. What enzyme system catalyzes reactions that either detoxify xenobiotics, or less commonly, convert xenobiotics into active compounds that can cause cellular injury?
    a. Cytochrome p19
    b. Cytochrome p22
    c. Cytochrome p156
    d. Cytochrome p450
4. Absorption of this metal interferes with calcium metabolism, effects that lead to hematologic, skeletal, neurologic, gastrointestinal, and renal toxicities.
    a. Potassium
    b. Mercury
    c. Arsenic
    d. Lead
5. High levels of lead cause _____ (CNS disturbances/peripheral neuropathies) in children but _____ (CNS disturbances/peripheral neuropathies) in adults.
6. Effects of lead exposure include all of the following except
    a. Increased risk for the development of cancers
    b. Inhibits remodeling of cartilage and primary bone trabeculae in the epiphysis in children
    c. Inhibits the healing of fractures by increasing chondrogenesis and delaying cartilage mineralization
    d. Suppresses heme synthesis leading to microcytic anemia
7. Higher levels of lead are absorbed by which population, children or adults?
8. Mercury mainly causes damage to which two organs?
9. Arsenic salts interfere with several aspects of cellular metabolism, leading to toxicities that are most prominent in the gastrointestinal tract, nervous system, skin, and heart. It is thought to cause it's damage predominantly through its effect on what cellular component/mechanism?
10. Cadmium is most often associated with toxic damage to the
    a. Brain and kidneys
    b. Lungs and kidneys
    c. Lungs and GI tract
    d. Brain and lungs
11. What is the leading exogenous cause of human cancers?
12. What are the main effects of chronic alcoholism seen in the liver?

13. The drug type which most frequently caused adverse reactions (as reported to the Food and Drug Administration) are _____.
14. Oral contraceptives are known to increase the risk of all the following except
    a. Hepatic adenoma
    b. Breast cancer
    c. Cervical cancer in women with HPV
    d. Thromboembolism
15. What is the most commonly used analgesic in the US?
16. Overdose of acetaminophen results in which of the following
    a. Centrilobular atrophy in liver
    b. Centrilobular necrosis in liver
    c. Portal triad necrosis in liver
    d. Hepatic adenoma
17. List 2 of the 3 greatest threats to life following in severe burn patients.
18. Which of the following is the most severe form of hyperthermia?
    a. Heat cramps
    b. Sunburn
    c. Heat stroke
    d. Heat exhaustion
19. What are the two general types of electrical injuries?
20. An example of ionizing radiation would be
    a. UV
    b. Infrared
    c. Microwaves
    d. X-rays
21. Which of the following tissues/organs is not sensitive to radiation exposure?
    a. Bone marrow
    b. Gonads
    c. GI mucosa
    d. Adult neurons
22. Describe marasmus and kwashiorkor and highlight the main difference(s) between them.
23. The condition described by extreme weight loss, fatigue, muscle atrophy, anemia, anorexia, and edema is _____ and often leads to mortality as a result of atrophied diaphragm and respiratory muscles.
    a. Marasmus
    b. Kwashiorkor
    c. Cachexia
    d. Anorexia
24. This vitamin is responsible for maintenance of normal vision, regulation of cell growth and differentiation, and regulation of lipid metabolism.
    a. Vitamin A
    b. Vitamin D
    c. Vitamin E
    d. Vitamin E

25. This vitamin is responsible for maintenance of adequate plasma levels of calcium and phosphorus to support metabolic functions, bone mineralization, and neuromuscular transmission.
    a. Vitamin A
    b. Vitamin D
    c. Vitamin E
    d. Vitamin E
26. Excess parathyroid hormone release causes increased bone _____ (deposition/resorption).
27. The skeletal diseases caused by an excess of unmineralized bone matrix caused by diets deficient in calcium and vitamin D are known as _____ in children and _____ in adults.
28. The deficiency of this vitamin is characterized principally by bone disease in growing children and by hemorrhages and healing defects in both children and adults.
    a. VItamin B
    b. Vitamin C
    c. VItamin D
    d. Vitamin E

1. B (pg 404-405)
2. C (405)
3. D (pg 407)
4. D (pg 411)
5. CNS disturbances in children. Peripheral neuropathies in adults (pg 411)
6. A (pg 411)
7. Children (pg 410)
8. CNS and kidneys (pg 412)
9. Mitochondria/mitochondrial oxidative phosphorylation (pg 412)
10. B (pg 413)
11. Tobacco (pg 414)
12. Fatty liver, alcoholic hepatitis, cirrhosis (leading to portal hypertension) and increased risk for hepatocellular carcinoma (pg 419)
13. Anticoagulants (specifically Warfarin and dabigatran) (pg 420)
14. B (pg 421)
15. Acetaminophen (pg 422)
16. B (pg 422)
17. Shock, sepsis, respiratory insufficiency (pg 426)
18. Heat stroke (pg 427)
19. 1) Burns and 2) ventricular fibrillation/cardiac and respiratory center failure (pg 427)
20. D (pg 428)
21. D (pg 428-429)
22. Marasmus is a form of generalized malnutrition (ie intake of protein, carbs and fats are equally low) which leads to emaciation whereas kwashiorkor is a form of malnutrition in which the diet is low in protein but relatively normal in calories which leads to hypoalbuminemia (pg 433)
23. C (pg 435)
24. A (pg 436)
25. B (pg 438)
26. Resorption (pg 440)
27. Rickets. Osteomalacia (pg 440)
28. B (pg 442)