

Robbins review questions - Chapter 2

1. A change in the phenotype of cells is
 - a. Hypertrophy
 - b. Hyperplasia
 - c. Metaplasia
 - d. Dysplasia
2. An increase in the size of cells, resulting in an increase in the size of the affected organs is
 - a. Hypertrophy
 - b. Hyperplasia
 - c. Metaplasia
 - d. Dysplasia
3. Atrophy can be caused by
 - a. Decreased workload
 - b. Loss of innervation
 - c. Diminished blood supply
 - d. Inadequate nutrition
 - e. Atrophy
 - f. All of the above
4. Cellular swelling, caused by changes in ion concentrations and water influx, is a sign of
 - a. Reversible cell injury
 - b. Irreversible cell injury
5. This pattern, seen in necrosis, reflects nuclear shrinkage, condensation of chromatin and increased basophilia
 - a. Karyolysis
 - b. Pyknosis
 - c. Karyorrhexis
 - d. Vacuolar degeneration
6. This pattern, seen in necrosis, reflects fading of chromatin which is presumably DNA loss because of enzymatic degradation by endonucleases
 - a. Karyolysis
 - b. Pyknosis
 - c. Karyorrhexis
 - d. Vacuolar degeneration
7. This pattern, seen in necrosis, reflects nuclear fragmentation
 - a. Karyolysis
 - b. Pyknosis
 - c. Karyorrhexis
 - d. Vacuolar degeneration
8. Architecture/cellular structure is preserved in what type of necrosis?
9. What disease is caseous necrosis commonly associated with?
10. Necrosis featuring an overlying bacterial infection is referred to as
 - a. Liquefactive
 - b. Coagulative

- c. Caseous
 - d. Gangrenous
 - e. Fibrinoid
11. This type of necrosis is often seen in immune reactions involving blood vessels
- a. Liquefactive
 - b. Coagulative
 - c. Caseous
 - d. Gangrenous
 - e. Fibrinoid
12. Liquefactive necrosis is typically seen in what location?
13. What type of cell death features inflammation?
14. Caspases are activated in what type of cellular death?
- a. Necrosis
 - b. The mitochondrial pathway of apoptosis
 - c. Death receptor pathway of apoptosis
 - d. B and C
 - e. All of the above
15. The _____ pathway is the major mechanism of apoptosis in all mammalian cells.
- a. intrinsic/mitochondrial
 - b. extrinsic/death receptor
16. Leakage of _____ (cytochrome c/caspases) from the mitochondria into the cytoplasm initiates apoptosis through activation of _____ (cytochrome c/caspases)
17. The death receptor pathway is initiated by what 2 receptor types?
18. BCL2 proteins are involved in what pathway of apoptosis?
19. Necroptosis is unique in that it is caspase independent. True or false?
20. When a drug/chemical is converted into a toxic metabolite by P-450 in the liver, it is said to be a form of _____ (direct/indirect) toxicity.
21. Anthracosis is an accumulation of _____ in the lungs.
- a. Coal
 - b. Iron
 - c. Melanin
 - d. Asbestos
22. Which of the following is known as a wear and tear pigment
- a. Hemosiderin
 - b. Xanthoma
 - c. Lipofuscin
 - d. Anthracosis
23. Dystrophic calcification occurs in areas of _____ (necrosis/hypercalcemia) while metastatic calcification occurs in areas of _____ (necrosis/hypercalcemia).

1. C (pg 32)
2. A (pg 34)
3. F (pg 36-37)
4. A (pg 38, 41)
5. B (pg 42)
6. A (pg 42)
7. C (pg 42)
8. Coagulative necrosis (pg 43)
9. Tuberculosis (pg 43)
10. D (pg 43)
11. E (pg 44)
12. The brain or bacterial abscesses (pg 43)
13. Necrosis
14. D (pg 54-55)
15. A (pg 54)
16. Cytochrome c. Caspases (pg 54-55)
17. Fas and TNF receptors
18. Mitochondrial pathway (pg 54-55)
19. True (pg 58)
20. Indirect toxicity
21. A (pg 64)
22. C (pg 64)
23. Necrosis. Hypercalcemia (pg 65)