

**1. An old man who is developing an acute myocardial infarction from coronary occlusion has an irreversible injury to myocardium when:**

- A. Glycogen is depleted.**
- B. Cytoplasmic sodium increase.**
- C. Nuclei undergo Karyorrhexis.**
- D. Intracellular pH diminishes.**
- E. Blebs form on cell membrane.**

**2. Autolysis involves which organelle system as a major factor?**

- A. Golgi complex.**
- B. Nucleus.**
- C. RER (rough endoplasmic reticulum). XXXX**
- D. Lysosomes.**
- E. Nucleolus.**

**3. Liquefaction is seen especially in:**

- A. Lungs.**
- B. Kidney.**
- C. Brain. XXXXX**
- D. Heart.**
- E. Liver.**

**4. The main cellular target for the action of radiation is:**

- A. DNA.**
- B. Cell membrane.**
- C. Mitochondria.**
- D. Ribosomes.**
- E. Endoplasmic reticulum.**

**5. Regarding loss of tissue architecture, with a cheesy appearance and consistency, which of the following is correct?**

- A. Fibrinoid necrosis.**
- B. Coagulative necrosis.**
- C. Caseous necrosis.**

- D. Cloudy swelling.**
- E. Fatty changes.**

**6. Apoptosis brings about a reduction in organ or tissue volume by:**

- A. Atrophy.**
- B. Calcification.**
- C. Induction of intense inflammatory response.**
- D. Deletion (Removal).**
- E. None of the above.**

**7. Fat necrosis may be seen after:**

- A. Carbon tetrachloride intoxication.**
- B. Dystrophic calcification.**
- C. Severe anemia.**
- D. Release of pancreatic enzymes in the peritoneum. XXXX**
- E. None of the above.**

**8. Enlargement of an organ by combined hyperplasia and hypertrophy may be seen in the:**

- A. Remaining kidney after unilateral nephrectomy (removal of kidney).**
- B. Left ventricle in mitral stenosis.**
- C. Uterus in pregnancy. XXXXX**
- D. Remaining testis after orchidectomy (removal of the testis).**
- E. Skeletal muscle in athletes.**

**9. Fatty degeneration is the accumulation of triglycerides within cells such as those of the hepatic parenchyma, this material is seen in the :**

- A. Nucleus.**
- B. RER (rough endoplasmic reticulum).**
- C. Lysosome system.**
- D. Cytoplasm.**

**10. These definitions are correct EXCEPT:**

- A. Sequelae: the complication of a disease.**
- B. Pathogenesis: is the mechanism by which a disease is caused.**
- C. Etiology: is the cause of the disease.**
- D. Prognosis: is the expected outcome of a disease.**
- E. Idiopathic: known cause of a disease.**

**11. A acute alcoholic hepatitis includes all of the followings EXCEPT:**

- A. Fatty changes.**
- B. Alcoholic hyalinization.**
- C. Hepatocyte necrosis.**
- D. Liver cirrhosis.**
- E. Acute inflammatory infiltrates.**

**12. The best example of dystrophic calcification is seen in:**

- A. A 55 year old female with metastasis from breast carcinoma and hypercalcemia.**
- B. A healing granuloma in a 41 year old male with pulmonary tuberculosis.**

- C. A 65 year old male with recent cerebral infarction.
- D. A gangrenous extremity in patient with uncontrolled diabetes mellitus.
- E. An abscess of the left fallopian tube in a young female with Neisseria gonorrhoea infection.

13. A 40 year old female used to take iron medication every day for 15 years, her liver would most likely show:

- A. Severe fatty changes.
- B. Coagulative necrosis.
- C. Hemochromatosis.XXXXX
- D. Anthracosis.
- E. Biliary cirrhosis.

14. Sectioning of a spleen shows a tan to white, wedge-shaped lesion with its base on the capsule of the organ, this lesion is most likely represents the result of:

- A. Coagulative necrosis.
- B. Metaplasia.
- C. Abscess formation.
- D. Liquefactive necrosis.

**E. Fat necrosis.**

**15. Focal fat necrosis is most common often associated with which of the following clinical conditions:**

- A. Fibrinous pericarditis.**
- B. Chronic salpingitis.**
- C. Acute pancreatitis. XXXX**
- D. Acute hepatitis.**
- E. Acute gastritis.**

**16. Hypertrophy is best illustrated by:**

- A. The uterine myometrium in late pregnancy. XXXXX**
- B. The female breast at puberty.**
- C. The liver undergoing cirrhosis.**
- D. The ovary following menopause.**
- E. The cervix with chronic inflammation.**

**17. An old female had cerebral infarction. Months later, a computed tomographic (CT) scan shows a cystic area in her cerebral cortex. The CT finding in a lesion that is the consequence of resolution from:**

- A. Liquefactive necrosis.XXXXX**
- B. Atrophy of brain tissue.**
- C. Coagulative necrosis.**
- D. Caseous necrosis.**
- E. Apoptosis.**

**18. After years of breathing contaminated (polluted) city air with smoke, your lungs have accumulate:**

- A. Anthracotic pigment. XXXXX**
- B. Lipofuscin.**
- C. Melanin.**
- D. Hemosidrin.**
- E. Asbestos.**

**19. A man with a history of chronic alcoholism, will most often have which one of the following findings in the liver:**

- A. Cholestasis.**

- B. Fatty changes. XXXX**
- C. Hemochromatosis.**
- D. Hypertrophy of smooth endoplasmic reticulum.**
- E. Coagulative necrosis.**

**20. The intracellular organelle involved with autolytic removal of cellular debris is:**

- A. Ribosomes.**
- B. Golgi complex.**
- C. Endoplasmic reticulum.**
- D. Lysosomes.**
- E. Mitochondria.**

**21. Coagulative necrosis usually occurs in ischemia of which of the following tissues:**

- A. Smooth muscle.**
- B. Intestinal mucosa.**
- C. Liver. XXXXX**

- D. Brain.
- E. Myocardial muscle.

22. An increase in tissue volume without addition of new cells is:

- A. Anaplasia.
- B. Hyperplasia.
- C. Hypertrophy. XXXXX
- D. Metaplasia.
- E. Hypoplasia.

23. Metaplasia is:

- A. A change in which one adult cell type is replaced by another adult cell type. XXXX
- B. Always premalignant.
- C. Extreme hyperplasia.
- D. Extreme hypoplasia.
- E. Shrinkage in the size of a cell.

**24. The following conditions may cause muscular atrophy EXCEPT:**

- A. Increased work-load.XXXX**
- B. Denervation.**
- C. Malnutrition.**
- D. Ischemia.**
- E. Immobilization.**

**25. Gas gangrene is a form of necrosis associated with:**

- A. Mycotic infections.**
- B. Emphysema.**
- C. Tuberculosis.**
- D. Infection with clostridia.**
- E. Muscle trauma.**

**26. The best example of dystrophic calcification is seen in:**

- A. A 65 year old male with recent cerebral infarction.**

- B. A gangrenous extremity in patient with uncontrolled diabetes mellitus.**
- C. A 55 year old female with metastasis from breast carcinoma and hypercalcemia.**
- D. A healing granuloma in a 41 year old male with pulmonary tuberculosis.**
- E. An abscess of the left fallopian tube in a young female with Neisseria gonorrhoea infection.**

**27. A 40 year old female used to take iron medication every day for 15 years, her liver would most likely show:**

- A. Anthracosis.**
- B. Severe fatty changes.**
- C. Hemochromatosis. XXXXX**
- D. Coagulative necrosis.**
- E. Biliary cirrhosis.**

**28. Which of the following has the greatest regenerative capacity:**

- A. Cartilage.**
- B. Myocardium.**
- C. Skeletal muscle.**

- D. Connective tissue.**
- E. Central nervous system neurons.**

**29. The main cellular target for the action of radiation is:**

- A. DNA.**
- B. Cell membrane.**
- C. Mitochondria.**
- D. Ribosomes.**
- E. Endoplasmic reticulum.**

**30. Fat necrosis may be seen after:**

- A. Carbon tetrachloride intoxication.**
- B. Dystrophic calcification.**
- C. Severe anemia.**
- D. Release of pancreatic enzymes in the peritoneum. XXXX**
- E. None of the above.**