

University Medicine

Name: _____ Score: _____

1. Which change is still reversible?
 - ☐ Enzymes leaking into the blood
 - ☐ Calcium flooding the mitochondria
 - ☐ Cell swelling from a failing Na^+/K^+ pump
 - ☐ Ruptured cell membranes
2. Which cell dominates acute inflammation?
 - ☐ Lymphocyte
 - ☐ Plasma cell
 - ☐ Neutrophil
 - ☐ Fibroblast
3. At a capillary's arterial end, hydrostatic pressure is 32 mmHg and plasma oncotic pressure is 25 mmHg (ignore tissue pressures). What is the net outward pressure?
_____ mmHg
4. Which feature proves a tumour is malignant?
 - ☐ Metastasis
 - ☐ A capsule
 - ☐ Large size
 - ☐ Slow growth
5. Which plaque is most likely to rupture?
 - ☐ Thin cap, large lipid core, many inflammatory cells
 - ☐ Any plaque narrowing the artery by over 70%
 - ☐ Thick cap, small core, heavily calcified
 - ☐ A fatty streak in a teenager
6. Which pair defines cirrhosis?
 - ☐ Fatty change and swelling
 - ☐ A single large tumour
 - ☐ Bridging fibrosis and regenerative nodules
 - ☐ Granulomas and caseation

7. What percentage of healthy people fall outside a reference interval?

_____ %

8. Apoptosis causes a strong inflammatory reaction.

☐ True ☐ False

9. Granulation tissue is a kind of granuloma.

☐ True ☐ False

10. Lung infarcts are usually pale.

☐ True ☐ False

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1. **Cell swelling from a failing Na^+/K^+ pump**

Swelling and fatty change reverse when oxygen returns; membrane damage does not.

2. **Neutrophil**

Neutrophils arrive first and in the greatest numbers.

3. **7 mmHg**

$32 - 25 = 7$ mmHg pushing fluid out.

4. **Metastasis**

Only malignant tumours metastasise.

5. **Thin cap, large lipid core, many inflammatory cells**

Vulnerability depends on the cap and core, not the size.

6. **Bridging fibrosis and regenerative nodules**

Scar and nodules across the whole liver.

7. **5 %**

The interval holds the central 95%, so 2.5% on each side fall outside.

8. **False**

Apoptotic fragments are eaten quietly; it is necrosis that leaks and inflames.

9. **False**

Granulation tissue is repair tissue of fibroblasts and new vessels; a granuloma is a cluster of macrophages.

10. **False**

The lung has two blood supplies and loose tissue, so its infarcts fill with blood and are red.