Small Group Quiz #5

CIRCULATION

1. Which one of the following vessels has the highest wall thickness/internal diameter (WT/ID) ratio?
   a) capillary
   b) aorta
   c) arteriole
   d) vein
   
   [Correct Answer: c)

2. If arterial compliance increases, which one of the following is most likely to occur?
   a) mean arterial pressure will increase
   b) mean arterial pressure will decrease
   c) pulse pressure will increase
   d) pulse pressure will decrease
   
   [Correct Answer: c)

3. What is the approximate mean arterial pressure in a person with a diastolic pressure of 60 mmHg and a pulse pressure of 30 mmHg?
   a) 100 mmHg
   b) 90 mmHg
   c) 80 mmHg
   d) 70 mmHg
   
   [Correct Answer: d)

   MAP = \frac{80 + \frac{1}{3}(30)}{2} = \frac{80 + 10}{2} = \frac{90}{2} = 45 mmHg

4. Which of the following will not result in an increase in cardiac output?
   a) infusion of norepinephrine
   b) arterio-venous fistula
   c) vigorous exercise
   d) hyperthyroidism
   
   [Correct Answer: a)

5. Which one of the following is not involved in mediating autoregulation?
   a) metabolic factors
   b) autocoids
   c) sympathetic nerve activity
   d) myogenic activity
   
   [Correct Answer: b)