**Question 1**

Autoregulation of long term local blood flow involves:

Select one:

a. Increased angiotensin activation

b. Changes in the metabolic requirements of tissues

c. Changes in vascular resistance to compensate for changes in perfusion pressure

d. Changes in the production of endothelium

Answer C. Ganong 23rd Edition pg 563 “capacity to compensate…by changes in vascular resistance”

**Question 2**

Local vasoconstriction results from:

Select one:

a. A decrease in pH

b. Increased sodium concentration

c. Locally released platelet serotonin

d. Increased potassium concentration

Answer C. Ganong 23rd Edition pg 563 “local liberation of serotonin from platelets”

**Question 3**

Which is NOT true about reflex mechanisms acting on the circulation?

Select one:

a. The glossopharyngeal nerve is involved in the baroreceptor reflex system

b. The Bainbridge reflex causes an increase in heart rate

c. The baroreceptors in the carotid bodies are stimulated when blood pressure increases

d. The maximum firing per change in pressure of the carotid baroreceptors occurs at a mean arterial pressure of 90 mmHg

Answer C. Ganong 23rd Edition pg 558 “carotid sinus”

**Question 4**

At an arterial blood pressure of 70 mmHg:

Select one:

a. Carotid sinus receptors are strongly stimulated

b. The central nervous system ischaemic response is activated

c. Both carotid body and carotid sinus receptors are strongly stimulated

d. Carotid body receptors are strongly stimulated

Answer D. ??? Ganong 23rd Edition pg 627 table 37-1

**Question 5**

Heart rate is accelerated by:

Select one:

a. Increased activity of baroreceptors in the pulmonary circulation

b. Increased activity of baroreceptors in the arteries

c. Decreased activity of baroreceptors in the left ventricle

d. Expiration

Answer C. Ganong 23rd Edition pg 559 table 33-3

**Question 6**

Arteriolar constriction is caused by:

Select one:

a. Circulating Na+K+ ATPase inhibitor

b. Circulating angiotensin I

c. Decreased noradrenergic discharge

d. Kinins

Answer A. Ganong 23rd Edition pg 556 table 33-1

**Question 7**

Factors affecting the activity of the vasomotor area in the medulla are:

Select one:

a. Inhibitory inputs from carotid and aortic chemoreceptors

b. Excitatory input from the lungs

c. Direct stimulation by CO2

d. Excitatory inputs from the carotid, aortic and cardiopulmonary baroreceptors

Answer C. Ganong 23rd Edition pg 558 table 33-2

**Question 8**

Which of the following statements is INCORRECT?

Select one:

a. The arterial wall consists of endothelium, intima, media and adventitia

b. Vasodilation is controlled by the endothelium

c. Vasoconstriction is controlled by the endothelium

d. Acetyl choline acts directly on arteriolar smooth muscles to cause relaxation

Answer D. Ganong 23rd Edition pg 556, table 33-1

**Question 9**

Which is true of the innervation of blood vessels?

Select one:

a. Substance P and CGRPα produce vasodilation

b. Noradrenergic fibres end on vessels in all parts of the body, and are vasoconstrictors

c. When sympathetic nerves are cut, the blood vessels constrict

d. All blood vessels contain smooth muscle

Answer B. Ganong 23rd Edition pg 556, table 33-1

**Question 10**

Regarding baroreceptors:

Select one:

a. Afferent fibres go via cranial nerves X and XI to the medulla

b. They discharge at an increased rate when the pressure in the vessel falls

c. The baroreceptor reflex is unchanged in chronic hypertension

d. Aortic arch fibres join the vagus nerve

Answer D. Ganong 23rd Edition pg 559 “the fibres from the aortic arch form a branch of the vagus nerve”