### Coronary circulation

1. What arteries supply blood to the left and right ventricular myocardium?
2. Are coronary collateral arteries uniformly present among animal species?
3. How is coronary flow to the left ventricle influenced by ventricular systole and diastole?
4. How does the myogenic response minimize changes in coronary blood flow despite changes in coronary arterial blood pressure?
5. How does myocardial metabolism alter coronary vascular resistance, flow and autoregulation?
6. What is meant by coronary flow reserve?
7. What are the effects of sympathetic nervous system stimulation on coronary blood flow?
8. What is reactive hyperemia of coronary flow?
9. Why must one evaluate both oxygen supply and oxygen demand to know whether coronary blood flow is adequate?
10. What are the determinants of myocardial oxygen demand?

### Cerebral circulation

1. What is the physiological advantage of a complete vascular ring (circle of Willis)?
2. What produces the blood–brain barrier?
3. How is the blood–brain barrier influenced by histamine?
4. What is the relative importance of neural and local control mechanisms in regulating cerebral blood flow?
5. What is the response of cerebral resistance vessels to hypercapnia and hypocapnia?
6. What are some of the metabolic vasodilators associated with an increase in cerebral blood flow in response to hypoxia?
7. What is the neurovascular unit?

### Skelatal muscle circulation

1. What factors regulate vasomotor tone in skeletal muscle at rest?
2. What is the skeletal muscle pump, and how does it contribute to the increase in cardiac output during exercise?
3. What are the cardiovascular responses associated with the anticipation of exercise?
4. What is meant by “rapid-onset vasodilation” in reference to skeletal muscle blood flow?
5. What factors produce the increase in blood flow to skeletal muscle during moderate exercise?
6. What is the net effect of functional sympatholysis?
7. What are the primary factors that maintain an elevated level of skeletal muscle blood flow during moderate exercise?
8. Why may limits to vasodilation in the vasculature of muscle during intense exercise be advantageous?
9. What structural changes occur in the skeletal muscle vascular bed in response to exercise training?
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