Lehninger 5e

P942 4 6 7 11 12

P943 15 19

**or**

Lehninger 6e

P973 4 6 7 11

P974 12 15 19

**or**

Lehninger 7e

P952 4 6 7

P953 11 12 15 19

**Extra questions:**

1. Ingestion large amounts of glucose before a marathon might seem to be a good way of increasing the fuel stores. However, experienced runners do not ingest glucose before a race. What is the biochemical reason for their avoidance of this potential fuel? (Hint: Consider the effect of glucose ingestion on the level of insulin.)
2. Explain, in terms of enzyme kinetics, why glucokinase is responsible for channeling glucose into the glycogen synthesis pathway in the liver, and why hexokinase (an isozyme of glucokinase) regulates the entry of glucose into the glycolytic pathway in muscle.