**ANSWERS: CHAPTER 24**

**MATCHING**

1. b  
2. c  
3. d  
4. a

**IMAGE LABELING**

1A. Host kidney/Poorly functioning kidney  
1B. Renal artery  
1C. Renal vein  
1D. Ureter  
1E. Iliac artery  
1F. Iliac vein  
1G. Host bladder  
1H. Donor ureter  
1I. Donor renal vein  
1J. Donor renal artery  
1K. Donor kidney

**MULTIPLE CHOICE**

1. b  
2. a  
3. d  
4. c  
5. d  
6. a  
7. b  
8. c  
9. d  
10. b

**FILL-IN-THE-BLANK**

1. Immunosuppressive medications; steroids; rejection; toxicity  
2. 87; 85; 78; 77  
3. Live; cadaver  
4. Pelvis; vertically; upper; diagonally  
5. Four; biliary  
6. V, VI, VII, and VIII; hepatic  
7. 7 to 10; 15 to 20  
8. Size; echogenicity; cortex  
9. 3; atrophy; fibrosis  
10. Interlobar; 0.8; 1.5  
11. Heterogeneous; increase  
12. 7 to 10  
13. Stenosis; decrease; 200; turbulence  
14. Painless jaundice; liver function tests; cholangitis  
15. Artery; hepatopedal

**SHORT ANSWER**

1. The renal allograft is implanted superficially in the right or left lower abdomen. It can be placed transperitoneal or intraperitoneal, but the extraperitoneal placement in the right iliac fossa is the preferred location. When a right kidney is transplanted in the left iliac fossa or a left kidney is transplanted in the right iliac fossa, it is considered heterotopic.

2. Focal hypoechoic spaces within the cortex may be seen, as well as prominent medullary pyramids. Swelling of the cortex may be seen along with a loss of differentiation between the cortex and medullary sinus.

3. Ensuring major histocompatibility between the donor and recipient reduces the chances of rejection and other complications. Binding of humoral antibodies leads to acute accelerated rejection with acute arteritis and arteriolitis and leads to vessel thrombosis and ischemic necrosis. Ensuring histocompatibility minimizes this reaction by avoiding antibodies against the donor’s lymphocytes.

**IMAGE EVALUATION/PATHOLOGY**

1. The spectral tracing is from the main hepatic artery. The waveform demonstrates low resistance flow and is normal. The hepatic artery is one of the two main vessels supplying blood and oxygen to the liver. Hepatic artery thrombosis and stenosis are two possible postoperative complications and can affect the health of the allograft.

2. The spectral tracing is from the left portal vein. The waveform is normal. Flow should be hepatopedal or toward the liver.

3. The peak systolic and end diastolic measurements are recorded, as well as the resistive index and the systolic to diastolic ratio. The normal resistive index is less than or equal to 0.8. An RI of 0.9 or higher is considered abnormal.

4. The arrow labeled A is pointing to the donor renal artery and the arrow labeled B is pointing to the iliac artery.