**Unit J Rev #2 KEY**

**LO – J-4**

1. **Pulmonary Circuit**
2. **Systemic Circuit**
3. **Both the Pulmonary Arteries and the Umbilical Arteries carry deoxygenated blood.**
4. **The Left side of the heart drives the Systemic Circuit.**
5. **The right atrium is the collecting chamber for the systemic circuit.**

**LO – J-5**

1. **The key differences between the circulation systems of fetus and developed human are:**
2. **Arterial Duct – Connects pulmonary trunk right onto Aorta – to help bypass lungs.**
3. **Oval Opening – Opening between right atrium and left atrium to help shunt blood straight from right atrium into left atrium.**
4. **Venous Duct – Connection between Umbilical vein carrying oxygenated blood from placenta and Fetus’s Inferior Vena Cava.**
5. **Umbilical arteries and vein. Blood vessels that connect fetal circulatory system to placenta. Umbilical arteries carry blood AWAY from fetal heart, umbilical vein brings back to fetal heart.**
6. **See diagram**



1. **Both the oval opening and the arterial duct are both structures that help with by-passing the fetus’ lungs.**
2. **As soon as the baby starts breathing the pressure in the thorax helps close off the oval opening. This allows blood to start moving to babies lungs for oxygenation.**
3. **Umbilical Vein**
4. **PLACENTA**
5. **Primarily through DIFFUSION. Baby's blood cells do not exchange with mother’s blood cells.**

**LO – J-6**

1. **Right Atrium 🡪 R. Ventricle 🡪 Pulmonary**

**Trunk 🡪 Pulmonary Arteries 🡪 Pulmonary Capillaries of Lungs 🡪 Pulmonary Veins 🡪 Left Atrium 🡪 Left Ventricle 🡪 Aorta 🡪 Abdominal Aorta 🡪 Common Iliac Artery 🡪 Femoral Artery 🡪 Capillary Beds of Toe 🡪 Femoral Vein or Great Saphenous Vein 🡪 Common Iliac Vein 🡪 Inferior Vena Cava 🡪 Right Atrium.**

**2. Left Atrium** 🡪 **Left Ventricle** 🡪 **Aorta** 🡪 **Carotid Artery** 🡪 **Brain.**

1. **Intestines** 🡪 **Hepatic Portal Vein** 🡪 **Liver** 🡪 **Hepatic Vein** 🡪 **Inferior Vena Cava** 🡪 **Right Atrium** 🡪 **Right Ventricle** 🡪 **Pulmonary Trunk** 🡪 **Pulmonary Arteries** 🡪 **Pulmonary Capillaries of Lungs** 🡪 **Pulmonary Veins** 🡪 **Left Atrium** 🡪 **Left Ventricle** 🡪 **Aorta** 🡪 **Abdominal Aorta** 🡪 **MESENTERIC artery 🡪 Intestines.**
2. **Superior Vena Cava 🡪 Right Atrium 🡪 R. Ventricle 🡪 Pulmonary Trunk** 🡪 **Pulmonary Arteries** 🡪 **Pulmonary Capillaries of Lungs** 🡪 **Pulmonary Veins** 🡪 **Left Atrium** 🡪 **Left Ventricle** 🡪 **Aorta 🡪 (Brachiocephalic-right) Subclavian Artery 🡪 Brachial Artery 🡪 Capillary Beds of finger**

**PRACTICE QUIZ:**

1. **C – Hepatic Vein 🡪 Inferior VC 🡪 R.A. 🡪**

**R.V. 🡪 Pulm Trunk 🡪 Pulm Art 🡪 Pulm Caps**

1. **B - W = a major artery, X = A Vein, Y = An arteriole, Z = A Capillary.**
2. **C**
3. **D – Hepatic Vein drains blood from liver and the pressure backs up to the small int.**
4. **C**
5. **B**
6. **B**
7. **C - W = Arteries X= Arterioles or Venules, Y= Capillaries, Z = Veins**
8. **A**