**Assignment Week 4**

**Fetal Measurements and Anatomy Scan and Others**

Fill in the blank (s) with the word(s) that best complete the statements about the gestational age assessment in the second and third trimester.

**Part I**

1. In the second trimester, the gestational age parameters extend to the \_ \_ biparietal head\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ diameter, \_\_\_ abdominal \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_circumference, and \_\_\_\_femur\_\_\_\_\_\_\_length.

2. The BPD should be measured perpendicular to the fetal skull at the level of the \_thalamus\_\_ \_\_\_\_\_\_\_\_\_\_\_and the \_cavum septi pellucidi\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

3. The head shape should be \_\_\_\_\_ovoid\_\_\_\_\_\_\_\_\_\_\_\_\_not round (brachycephaly) because this can lead to overestimation of gestational age, just flattened or compressed head (dolicocephaly) can lead to underestimation of gestational age.

4. The fetal abdomen should be measured in a transverse plane at the level of the \_\_liver\_\_\_\_\_\_\_\_\_\_where the \_\_umbilical\_\_\_\_\_\_\_\_\_\_\_\_\_vein branches into the left portal sinus.

5. Often an echo from the near side of the cartilaginous distal femoral condyles will be seen, called the “\_\_\_distal femoral epiphysis\_\_\_\_\_\_\_\_\_\_\_\_\_”, and should not be included in the measure of the diaphysis.

6. Used in the first trimester to estimate appropriate gestational age with dates\_\_gestational sac diameter\_\_\_\_\_\_\_\_\_\_\_

7. When obtaining a biparietal diameter measurement, the calipers should be placed from the \_outer\_\_\_\_\_edge of the parietal bone to the inner edge of the opposite parietal bone.

8. The abdomen should be more round than oval because an oval shape indicates an oblique cut resulting in a false estimation of size.

9. In general the CRL should increase at a rate of 1 mm per day.

10. If the \_choroid plexus\_\_\_\_\_\_\_\_\_\_\_appears to float or dangle within the cavity, measurements of ventricular size are recommended to exclude abnormally enlarged or dilated ventricles (ventriculomegaly).

**Part II**

The second and third trimester sonography examination should include documentation from the following structures in each area:

**Maternal Structures:** adnexa, ovaries, cervix, maternal uterus for lesions/masses

**Fetal Environment:** One vs multiple fetuses, placenta, placental cord insertion, amniotic fluid

**CNS:** Calvarium, biparietal diameter and head circumference measurements, cerebral ventricles, choroid plexus, midline falx, cavum septum pellucidum, thalami, third ventricle, corpus callosum, cerebellum, cerebral peduncles, cisterna magna, nuchal skin fold, spine views including the cervical, thoracic, lumbar, and sacral spine in tx/long views,

**Face:** Profile to eval nasal bone, chin for micrognathia, and any sign of cleft lip or palate or proboscisis, orbital measurements in some labs.

**Thorax:** Cardiac activity and rate, position and location of the heart within the chest, four chamber view, right and left ventricular outflow tracts, septal continuity, pulmonary veins, descending aorta, moderator band, ribs. Masses in the lungs, intact diaphragm, situs with the stomach

**Abdomen:** Diaphragm, situs with the heart, liver, portal vein, vertebral bodies, kidneys, AC

**Pelvis:** Cord insertion, bladder, three vessel wrap around the bladder, gender?

**Extremities:** Femur length measurement, all long bones, feet angles to rule out clubbed foot or rocker bottom foot, hands attached to ulna/radius.