Questions from the “Anatomy and Embryology of Bovine Palpation”
presented on 10-20-05

10-27-05

All questions refer to the ox (cow or bull)

1. The openings of the canals of Gartner (Longitudinal ducts of Epoophoron) in the cow should be just lateral to the cranial level of the ________________.
   a. Clitoral fossa
   b. External urethral orifice
   c. Vaginal fornix
   d. Middle of the vestibule
   e. Middle of the vagina

2. The ligament of the uterus usually used to pull the enlarged uterus back into the pelvic cavity for palpation is the ____________.
   a. Broad ligament
   b. Dorsal intercornual ligament
   c. Ventral intercornual ligament
   d. Round ligament of the uterus
   e. Proper ligament of the ovary

3. The uterine artery (middle uterine artery) takes origin from the ____________ artery which is a branch of the ____________________ artery.
   a. Umbilical, internal iliac
   b. Internal iliac, umbilical
   c. Umbilical, external iliac
   d. External iliac, umbilical
   e. Umbilical, internal pudendal
   f. Internal pudendal, umbilical

4. The uterine branch (caudal uterine artery) takes origin from the ______________ artery which is a branch of the ______________ artery.
   a. Vaginal, internal iliac
   b. Internal iliac, vaginal
   c. Vaginal, internal pudendal
   d. Internal pudendal, vaginal
   e. External iliac, aorta

5. The uterine artery has a rectally palpable fremitus by about ________ days, and the uterine branch has a fremitus late/early in pregnancy that can be palpated through the lateral wall of the vagina True/False
   a. 40, late, true
   b. 70, late, true
   c. 40, early, true
   d. 70, early, true
   e. 40, late, false
   f. 70, late, false
   g. 40, early, false
   h. 70, early, false
6. The ovarian artery and vein have extensive branching and intimate contact with each other that allows prostaglandins produced in the uterus to diffuse from the veins to the arteries that if not pregnant produces ______________ of the corpus luteum. This phenomenon is consistent with the fact that the uterine vein (middle uterine vein) is relatively small or even absent and the main venous drainage of the uterine horns is via the ovarian veins. True/False
   a. Development, True
   b. Development, False
   c. Regression, True
   d. Regression, False

7. Comparing the Graafian follicle and a mature corpus luteum the one which is about 1-2 cm is the ______________ and the one that is about 1.9 to 3.2 cm is the ______________. Considering the CL of pregnancy and the CL of the estrous cycle they can/can’t be differentiate on the basis of size or weight.
   a. Graafian follicle, CL, can
   b. Graafian follicle, CL, can’t
   c. CL, Graafian follicle, can
   d. CL, Graafian follicle, can’t

8. Considering the granulosa lutein cells of the corpus luteum, these cells originate from the ________________, and produce progesterone and/not estrogen, and are/are not the major cells of the corpus luteum.
   a. Membrana granulosa, but not, are not
   b. Theca externa, but not, are not
   c. Theca interna, but not, are not
   d. Membrana granulosa, and, are
   e. Theca externa, and, are
   f. Theca interna, and, are

9. The stigma is the portion of the ______________ that ____________ blood vessels.
   a. Corpus luteum, has
   b. Graafian follicle, has
   c. Corpus luteum, does not have
   d. Graafian follicle, does not have

10. The most common neoplasm of the cow ovary is the ______________ neoplasm that is of ______________ origin, and typically produces a uterine wall that is ______________.
    a. Theca externa cell, sex cord stromal, flaccid
    b. Granulosa cell, sex cord stromal, flaccid
    c. Theca externa cell, primordial cell, flaccid
    d. Granulosa cell, primordial cell, turgid
    e. Theca externa cell, primordial cell, turgid
    f. Granulosa cell, sex cord stromal, turgid
11. In order from ovary to uterine horn the uterine tube (fallopian tube, salpinx) can be divided into 3 segments. The ____________, ____________, and ____________ with the ____________ being the longest of the 3 segments.

a. Infundibulum, ampulla, isthmus, ampulla
b. Infundibulum, isthmus, ampulla, ampulla
c. Ampulla, isthmus, infundibulum, ampulla
d. Infundibulum, ampulla, isthmus, isthmus
b. Infundibulum, isthmus, ampulla, isthmus
c. Ampulla, isthmus, infundibulum, isthmus

12. By definition the conjugate diameter is longer/shorter than the vertical diameter of the pelvic inlet and by anatomy the pelvic inlet is larger/smaller than the pelvic outlet with the totally osseous opening being the outlet/inlet.

a. Longer, larger, inlet
b. Longer, larger, outlet
c. Longer, smaller, inlet
d. Longer, smaller, outlet
e. Shorter, larger, inlet
f. Shorter, larger, outlet
g. Shorter, smaller, inlet
h. Shorter, smaller, outlet

13. In a medium sized non-pregnant cow and with a medium sized palpator the ovaries should be at about the level of your finger tips when your _______________ is at the level of the vulvular cleft.

a. Wrist
b. Elbow
c. Shoulder

14. The placenta of the cow is a _______________ , _______________ , _______________ placenta.

a. Syndesmochorial, Cotyledonary, partially (delayed) deciduate
b. Epitheliochorial, Cotyledonary, partially (delayed) deciduate
c. Syndesmochorial, Cotyledonary, non-deciduate
d. Epitheliochorial, Cotyledonary, non-deciduate
e. Syndesmochorial, diffuse, partially (delayed) deciduate
f. Epitheliochorial, diffuse, partially (delayed) deciduate
g. Syndesmochorial, diffuse, non-deciduate
h. Epitheliochorial, diffuse, non-deciduate

15. In the cow the uterine tubes, uterine horns, cervix and at least the cranial part of the vagina develop from the _______________ (Pick the two correct answers)

a. Wolffian ducts
e. Gartner’s canals
b. Mullerian ducts
f. Longitudinal Duct of Epoophoron
c. Mesonephric ducts
g. Pronephric ducts
d. Paramesonephric ducts
h. Metanephric ducts