1. Holstein dairy cows have 3.5% fat in their milk. Harp Seals have ________% fat in their milk.
   A  20  B  80  C  50  D  40  E  10  F  30

2. When Rod wants to induce lactation in cows he uses high levels of estrogens and progestogens (i.m.). However, this disorder often occurs in those treated cattle:
   A  cystic ovarian disease  B  ketosis  C  hypercalcemia  D  pyometra  E  milk fever  F  hypocalcemia

3. Some hormones can be applied to the integument and will be absorbed. This route of administration can be termed ____________.
   A  inunction  B  transcription  C  exocrine  D  intraperitoneal (i.p.)  E  intraorbital  F  extracorporeal

4. It takes approx. _____ pints of mammary blood flow to produce 7 gallons of milk in the dairy cow.
   A  48,000  B  8,000  C  28,000  D  1,000  E  10,000  F  500

5. Periparturient is a term that means:
   A  the uterus is undergoing involution  B  the mammary glands are undergoing involution  
   C  around the anal region  D  around the time of weaning  E  around the time of birth  F  never having been pregnant

6. Good quality colostrum will have a globulin protein level of:
   A  50 g/L or greater  B  100 ppb or greater  C  350 ppb or greater  D  10 ppm or greater  E  less than 2 g/L  F  20 ppm or greater

7. The cyclic secretion pattern of these two hormones stimulate mammary growth after puberty.
   A  estrogen and LH  B  progesterone and cortisol  C  estrogen and progesterone  D  growth hormone and insulin  E  bromocriptine and estrogen  F  placental lactogen and estrogen
8. In early postpartum dairy cows, the uterus must undergo __________ before it can carry another pregnancy.
A  meiosis
B  polydipsia
C  hypertrophy
D  inunction
E  involution
F  aplasia

9. Udder edema most often occurs in
A  dairy cows with uterine inertia.
B  primiparous dairy heifers.
C  dairy cows with metritis.
D  multiparous dairy cows.
E  old, dry dairy cows.
F  dairy cows with mastitis.

10. During acute bovine bloat, a(n) _______ may be placed in the ______________.
A  trocar, distal brisket
B  suture, perianal region
C  fossa, right paralumbar triade
D  fossa, brisket
E  trocar, left paralumbar fossa
F  sleeve, left cervical region

11. The presence of this molecule in the urine typically indicates pregnancy in women.
A  epinephrine
B  hCG
C  GH
D  progesterone
E  GnRH
F  oxytocin

12. In human males, a disorder may spontaneously occur that promotes breast growth. This condition is termed:
A  gynecomastia
B  mastitis
C  acute mastication
D  hypermastication
E  hypomastia
F  mastopexy

13. In general, ________ unit(s) of lymph leave the udder of dairy cows for every unit of milk produced.
A  5.0
B  3.0
C  0.5
D  0.2
E  1.6
F  1.0

14. Something that promotes lactation is a(n):
A  anabolic steroid
B  androgen
C  cryogen
D  lactogen
E  gonadotropin
F  teratogen
15. Select the false statement about milk fever in dairy cows.
   A. An effective treatment is calcium gluconate (i.v.).
   B. Another name could be periparturient hypocalcemia.
   C. A high fever is usually present.
   D. High producing cows are more susceptible to the condition.
   E. Occurs most often soon after calving.
   F. Recent preventions involve determining a dietary cation-anion difference, and feeding accordingly.

16. After _______, the mammary gland undergoes ____________.
   A. mastitis, mammogenesis
   B. puberty, atresia
   C. weaning, involution
   D. puberty, atrophy
   E. milk fever, hypertrophy
   F. birth, involution

17. This device is used to evaluate the quality of colostrum of dairy cows.
   A. Beck's Thermocoupler
   B. pH meter
   C. The Thomas Electrodetector
   D. Beck's Precipitation Device
   E. Brix Refractometer
   F. Bayer's Precipitation Monitor

18. In addition to causing contractions of myoepithelial cells, _________ can cause _________ contractions.
   A. progesterone, uterine
   B. prolactin, ovarian
   C. growth hormone, alveoli
   D. oxytocin, uterine
   E. cortisol, myocardial
   F. estrogen, neural

19. When Rod wants to induce parturition in cattle, he uses ______________.
   A. Saline Solution (0.9%)
   B. progesterone
   C. Furosemide
   D. Dexamethasone
   E. prolactin
   F. prolactin

20. The standard lactation length in dairy cattle is ______ days.
   A. 200
   B. 120
   C. 400
   D. 60
   E. 305
   F. 220

21. Dairy cows with mastitis often have an elevated milk SCC. This cell accounts for most of the elevated SCC.
   A. erythrocytes
   B. B-cells
   C. platelets
   D. T-cells
   E. IgG
   F. neutrophils
22. Lactating dairy cows in negative energy balance will always be:
   A. the lightest body weight cows.
   B. the fatest cows.
   C. losing body weight.
   D. fertile and have regular estrous cycles.
   E. the highest milk producing cows.
   F. the youngest cows.

23. The lactating beef cow has a delayed return to postpartum estrous cycles (as compared to dairy cows) because of:
   A. the different photoperiods present in their environment.
   B. its smaller body size.
   C. the presence of the beef bull.
   D. the use of bromocriptine.
   E. its diet that lacks silage.
   F. the nursing calf.

24. In dairy cattle, __________ is caused by acute ________________.
   A. hypometra, growth hormone
   B. ketosis, hypercalcemia
   C. periparturient paresis, hypocalcemia
   D. edema, diffusion
   E. pyometra, hypoglycemia
   F. paresis, growth hormone

25. This is the function of caprine angiogenic factors.
   A. tells pancreas to release additional buffers
   B. tells liver to increase its production of angiotensinogen
   C. reduce the size of myocytes
   D. induce mitosis of myocytes
   E. increase the number and size of myocytes
   F. promote blood vessel formation

26. This neurohormone (__________) causes ________________ cells in the equine mammary gland to contract.
   A. lactoferrin, stromal
   B. progesterone, muscle
   C. ADH, myoepithelial
   D. oxytocin, myoepithelial
   E. GnRH, myoepithelial
   F. estrogen, stromal

27. Intercostal space in a horse refers to the space ________________.
   A. that makes milk fat in the mammary gland
   B. between adjacent ribs
   C. where lymph collects in the liver
   D. between teeth
   E. that collects newly synthesized colostrum
   F. where colic often occurs