Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1.) Which of the following is a benefit of ET?

 A. ET is inexpensive and easy to perform

 B. ET can be done using any cow on the farm

 C. ET preserves superior genetics for future generations

 D. ET is an easy way to have twin calves

2.) If embryos are not transferred they must be

 A. Refrigerated immediately

 B. Thrown away

 C. Stored in excess flush media

 D. Frozen in liquid nitrogen

3.) An embryo is

 A. a fertilized egg

 B. an unfertilized egg

 C. an immature egg

 D. an organism in the last stage of development

4.) Which of the following is used to synchronize estrous cycles of the donor and

 recipient cow?

 A. Lidocaine

 B. Lutalyse

 C. FSH

 D. Estrogen

5.) A follicle releases

 A. 2 eggs

 B. 1 egg

 C. 0 eggs

 D. 4 eggs

6.) Why is it important to synchronize the estrous cycles of the donor and recipient cow ?

 A. to make the transfer easier on the ET professional

 B. so the milk production of the recipient cow will be adequate

 C. so the reproductive environments of the donor and recipient cow are the same

 D. none of these are correct

 7.) Superovulation causes

 A. the donor cow to come into heat sooner

 B. the recipient cow to stay in heat longer

 C. ovulation to occur earlier

 D. the ovary to produce many follicles

8.) The donor cow should be bred at least how many times prior to the flush when using

 artificial insemination?

 A. 1

 B. 2

 C. 3

 D. 4

9.) Which of the following determines which of the recipient cow’s uterine horn the

 embryo will be placed in?

 A. the presence of a corpus luteum

 B. the size of the uterine horn

 C. the structure of the uterine horn

 D. the preference of the ET professional

10.) What is the antibiotic used to kill any missed embryos or infection after the flush?

 A. progesterone

 B. prostaglandin

 C. penicillin

 D. lidocaine

11.) During a flush, the purpose of inflating the balloon is to

 A. expand the uterus

 B. seal the entrance to the uterus so fluid and embryos aren't lost

 C. stop uterine contractions

 D. keep the catheter from slipping out

12.) Embryo are approximately \_\_\_\_\_\_ in size.

 A. 1 mm

 B. 1 in.

 C. 0.5 in.

 D. 0.2 mm

13.) The corpus luteum (CL) is a structure on the ovary that secretes the hormone

 \_\_\_\_\_\_\_\_\_\_\_\_ which is needed to maintain pregnancy.

 A. progesterone

 B. estrogen

 C. testosterone

 D. FSH

14.) The goal of ET is to

 A. obtain one genetically superior embryo

 B. obtain as many embryo as possible regardless of their quality

 C. obtain the maximum number of genetically superior embryos in a minimum

 amount of time

 D. none of the above are correct

 15.) The total cost of embryo transfer is approximately

 A. $ 500 per flush and $ 400 per calf born

 B. $ 150 per flush and $ 150 per calf born

 C. $ 500 per flush and $ 100 per calf born

 D. $ 300 per flush and $ 270 per calf born

True / False

T F 16.) ET involves the removal of an embryo from a genetically superior cow and placing

 t into a cow of average genetics.

T F 17.) Donor cows must possess excellent genetics.

T F 18.) Prostaglandin (Lutalyse) is the hormone used to superovulate a donor cow.

T F 19.) When you observe a cow riding another cow you can conclude that she is in estrus.

T F 20.) The only purpose for waiting 6 days before flushing embryos is to allow growth and

 development.

T F 21.) The most important characteristic that a recipient cow must possess is milking

 ability.

T F 22.) ET professionals use a surgical method to remove embryos.

T F 23.) An average of 7-10 embryos are collected from each flush.

 T F 24.) Embryos must be undamaged and at proper maturity before transferred.

T F 25.) The uterine horns are flushed only once to allow embryos to flow out of the tract.

T F 26.) Filters are designed to keep only the good embryos and let the bad ones drain off

 with the excess fluid.

T F 27.) Embryos must be examined under a microscope to determine their quality and stage

 of development.

T F 28.) The embryo transfer procedure has a fairly low difficulty level.

T F 29.) Recipient cows do not contribute any genetic material to transferred embryos.

T F 30.) The donor cow can either be bred naturally or by artificial insemination.

TEST Key

 1.) C

 2.) D

 3.) A

 4.) B

 5.) B

 6.) C

 7.) D

 8.) B

 9.) A

10.) C

11.) B

12.) D

13.) A

14.) C

15.) D

16.) T

17.) T

18.) F

19.) T

20.) F

21.) T

22.) F

23.) T

24.) T

25.) F

26.) F

27.) T

28.) F

29.) T

30.) T