

2019 Virginia FFA Dairy Cattle Evaluation and Management Career Development Event
Written Exam

Name _____ FFA Chapter _____

Instructions: Record your answers in the "Written Exam" section on the back of your Scantron form. Select the single best answer for each question. Each question is worth 3 points. Total points possible = 150. The time limit is 30 minutes.

- 1. Which of the following statements concerning the dry period is false?**
 - A) Blanket dry cow therapy is a way to decrease the use of antibiotics.
 - B) Dry cow antibiotic products contain a higher concentration of antibiotics than lactating products.
 - C) The most effective time to treat mastitis infections is at drying off.
 - D) The purposes of dry cow antibiotic treatment are to remove existing infections and prevent new infections.
 - E) The traditionally recommended length of the dry period is 45 to 60 days.
- 2. How many points are assigned to "frame" on the PDCA Dairy Cow Unified Scorecard?**
 - A) 15
 - B) 20
 - C) 25
 - D) 30
 - E) 40
- 3. Which of the following would result in a dairy animal being disqualified from being shown in the show ring?**
 - A) A cow has a blind quarter.
 - B) A cow is permanently lame.
 - C) A heifer is a freemartin.
 - D) All of the above
 - E) None of the above
- 4. What is the common name for dystocia?**
 - A) Calving difficulty
 - B) Foot rot
 - C) Ketosis
 - D) Milk fever
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- 5. Why would a dairy farmer add a buffer to a dairy cow's ration?**
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- 7. Calves should double their birthweight by what age?**
 - A) 2 weeks
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- 8. What type of mastitis continues over a long period of time, with progressive development of scar tissue and simultaneous reduction in milk yield?**
 - A) Acute
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- 9. If colostrum is pasteurized, it is recommended to heat it at 140°F?**
 - A) 2 seconds
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**2019 Virginia FFA Dairy Cattle Evaluation and Management Career Development Event
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- 10. Corn silage has the best fermentation and preservation characteristics with minimal seepage when harvested at what percent dry matter?**
- A) 25%
 - B) 35%
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- 11. Your nutritionist has recommended including a buffer in the high cow ration. Which of the following might be used for this purpose?**
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- 27. Requirements for trace minerals are usually stated using what units of measurement?**
A) International units
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- 28. Kernel processing of corn silage increases digestibility of what?**
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- 30. What is the largest cost of raising dairy replacement heifers?**
A) Equipment
B) Feed
C) Insurance
D) Interest
E) Labor
- 31. How often should a bulk tank be washed and sanitized?**
A) After each milking
B) Every time it is emptied
C) Daily
D) Biweekly
E) Weekly
- 32. Why is inbreeding a concern in dairy cattle?**
A) It can decrease ME milk production by 80 pounds per lactation for each percent increase in inbreeding.
B) It can decrease reproductive performance.
C) It can expose recessive genes.
D) All of the above
E) None of the above
- 33. What is generally considered the best material for covering a bunker silo?**
A) Mulch
B) Newspaper
C) Plastic
D) Sawdust
E) Straw

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34. Which of the following would result in disqualification in a PDCA showmanship contest?

- A) Chewing gum
- B) Clipping line not properly blended
- C) Crowding or bumping other animals when pulled into line
- D) Repeated striking of the animal
- E) Wearing inappropriate shoes

35. Calf starter should contain what percent protein?

- A) 2-6%
- B) 8-12%
- C) 18-22%
- D) 28-32%
- E) 38-42%

36. What instrument is used to give an animal a pill?

- A) Balling gun
- B) Elastrator
- C) Esophageal feeder
- D) IV tube
- E) Trocar

37. Which of the following is important in determining nutrient requirements of a lactating dairy cow?

- A) Bodyweight
- B) Milk production level
- C) Reproductive status
- D) All of the above
- E) None of the above

38. What is the normal temperature of a calf?

- A) 95.0°F
- B) 98.6°F
- C) 101.5°F
- D) 102.5°F
- E) 105.1°F

39. Which of the following minerals is classified as a micromineral required by dairy cows?

- A) Copper
- B) Magnesium
- C) Manganese
- D) Selenium
- E) Zinc

40. In 2017, milk production in the United States totaled 212.4 ___ pounds.

- A) Thousand
- B) Million
- C) Billion
- D) Trillion

For questions 41-50, use the cow information provided for the exam. The last test day was May 20, 2019. The report was generated on June 7, 2019.

41. When is cow 4 due to calve?

- A) October 16, 2018
- B) February 8, 2019
- C) May 30, 2019
- D) August 2, 2019
- E) August 30, 2019

42. How many second lactation cows are currently in milk?

- A) 5
- B) 7
- C) 8
- D) 20
- E) 27

43. How many cows in the herd are rated as "top cows"?

- A) 4
- B) 5
- C) 11
- D) 16
- E) 20

44. Which cow produced the most milk on the May 20 test day?

- A) 3
- B) 10
- C) 15
- D) 19
- E) 22

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- 45. How many cows have been labeled as “do not breed”?**
- A) 4
 - B) 6
 - C) 8
 - D) 18
 - E) 19
- 46. How many cows are open over 100 days and have not been bred, excluding those labeled as “do not breed”?**
- A) 0
 - B) 1
 - C) 6
 - D) 10
 - E) 16
- 47. How many cows have somatic cell scores greater than 5.0 on the current test day?**
- A) 1
 - B) 3
 - C) 5
 - D) 6
 - E) 11
- 48. Which cow has the worst Estimated Relative Producing Ability?**
- A) 3
 - B) 11
 - C) 12
 - D) 27
 - E) 34
- 49. What is cow 12’s protein percent for her lactation to date?**
- A) 3.0
 - B) 3.1
 - C) 3.2
 - D) 3.5
 - E) 3.9
- 50. Which cow has been in milk the longest this lactation?**
- A) 1
 - B) 14
 - C) 15
 - D) 19
 - E) 21

2019 Virginia FFA Dairy Cattle Evaluation and Management CDE
Written Exam: Cow Information for Questions 41-50

Date of Test: 05/20/19
Reference Date: 06/07/19

Cow ID	Breed	Sire ID	Status		Lact No.	Age (mo.)	DIM	Test month				Prev. SCS	Lactation to Date						ME Milk	ERPA Milk	No. Breedings	Repro Code	Last Bred	Date Due	Days Dry	Days Open
			Code	Date				Milk	Fat%	Pro%	SCS		Milk	Fat%	Pro%	Fat	Pro	Rating								
1	HO	ROBUST	2	01/09/19	6	80	132	82.5	4.3	3.5	1.3	0.1	11778	4.3	3.4	511	403	E	21691	-1355	2		05/10/19	02/14	26	121
2	HO	SHAMROCK	2	05/12/19	5	78	9	85.7	4.7	3.4	1.9		590	4.9	3.7	29	22			1907					58	27
3	HO	SHAMROCK	2	01/23/19	5	73	118	150.4	1.8	2.5	0.1	0.1	18013	2.9	2.6	517	468	C	36214	4690	2		05/04/19	02/08	59	101
4	HO	DENIM	3	05/30/19	4	61	328	64.0	4.6	3.6	5.5	3.9	31079	3.7	3.3	1138	1030	C	30722	-617	2	P	10/26/18	08/02	58	121
5	HO	PLANET	2	07/26/18	4	62	299	57.6	3.7	3.0	3.4	3.5	33790	3	2.9	1023	980	B	36851	3089	2	P	11/23/18	08/30	51	120
6	HO	DUBLIN	2	10/11/18	4	64	222	118.2	2.7	3.1	2.3	0.4	29563	3.3	2.9	985	852	B	38536	4138		C			68	240
7	HO	CABRIOLET	2	08/21/18	4	57	273	91.9	6.4	3.7	5.3	1.8	28055	4.4	3.5	1228	975	A	33633	1956		C			55	291
8	HO	MOGUL	2	09/21/18	3	55	242	104.9	5.4	3.7	4.3	3.4	27225	5.3	3.6	1430	991	A	35613	2049		C			74	260
9	HO	DENIM	2	06/27/18	3	49	328	73.3	4.5	3.6	7.8	6.2	30548	3.6	3	1092	904	C	31187	870		C			67	346
10	HO	JITTERBUG	2	04/01/19	3	55	50	148.7	2.6	2.9	1.4	2.6	5599	3.7	3.1	208	175	D	29957	824					54	68
11	HO	PREDESTIN	2	12/20/18	3	50	152	112.8	3.6	3.4	4.8	4.4	17326	4.2	3.3	735	566	C	30515	478	2	P	04/26/19	01/31	64	127
12	HO	PREDESTIN	2	04/10/19	3	53	41	110.2	3.0	3.1	3.5	8.3	3047	3.9	3.2	118	99	E	24463	-3165					63	59
13	HO	HALOGEN	2	05/07/19	3	49	14	100.0	3.1	3.4	0.4		1117	3.4	3.8	38	43			-1639					102	32
14	HO	CABRIOLET	3	05/16/19	2	35	400					2.7	39381	3.5	3.3	1392	1298	B	36708	2069	3	P	10/12/18	07/19	46	184
15	HO	TROY	2	05/18/18	2	35	368	85.5	3.2	3.3	1.4	3.8	44751	2.7	3	1208	1349	A	45411	2609		C			50	386
16	HO	CABRIOLET	2	05/15/19	3	45	6	73.8	4.3	4.0	1.8		328	4.6	4	15	13			-213					58	24
17	HO	TROY	2	11/26/18	2	37	176	100.4	2.9	3.3	1.3	0.7	15799	3.1	3.4	488	538	D	29162	-2143	1	P	02/15/19	11/22	65	81
18	HO	MOGUL	2	09/09/18	2	34	254	61.9	3.5	3.3		3.4	26533	3.6	3.2	956	848	B	35740	1122	1	P	11/30/18	09/06	62	82
19	HO	TROY	6	11/10/17	1	23	557	81.8	3.2	3.5	2.5	3.1	46946	3.1	3.4	1468	1585	C	34058	765		C				575
20	HO	TROY	2	10/03/18	2	33	230	104.3	2.3	3.5	4.7	4.1	22941	3.1	3.4	721	778	C	35347	885	4	P	04/26/19	01/31	53	205
21	HO	MOGUL	6	05/14/18	1	28	372	93.5	4.3	4.1	1.2	1.6	36698	3.8	3.3	1412	1204	A	35916	1594	4	P	12/17/18	09/23		217
22	HO	SUPERSIRE	2	03/05/19	2	33	77	136.1	2.1	2.9	0.1	0.1	9311	3.1	3	288	281	B	37143	2331	1		05/24/19	02/28	53	80
23	HO	SUPERSIRE	3	05/30/19	1	24	295	68.0	4.2	3.4	2.6	1.8	25637	3.7	3.1	943	783	B	34979	1090	1	P	10/19/18	07/26		81
24	HO	DAMARIS	3	05/01/19	1	23	301					4.4	23287	4	3.3	927	757	B	31787	-537	1	P	09/21/18	06/28		79
25	HO	PESO	2	04/04/19	2	32	47	70.7	2.1	3.4	3.8	2.8	3369	3.6	3.8	122	129	E	22368	-2534					43	65
26	HO	DAMARIS	2	06/02/19	2	33	309													-2509					46	6
27	HO	SUPERSIRE	6	08/13/18	1	23	281	65.2	4.8	3.6	2.0	1.7	22663	4	3.2	909	731	B	32844	-20	1	P	11/02/18	08/09		81
28	HO	SUPERSIRE	6	09/18/18	1	22	245	59.9	4.8	3.5	6.2	7.4	19307	3.7	3.4	715	663	C	30707	-1482	1	P	12/07/18	09/13		80
29	HO	TROY	6	07/24/18	1	20	301	55.8	4.7	4.0	3.3	2.3	22418	3.9	3.3	878	737	B	32137	-358	2	P	11/23/18	08/30		122
30	HO	SUPERSIRE	6	08/30/18	1	20	264	86.1	5.3	3.6	0.1	0.1	21477	4.5	3.3	958	703	A	35478	1312	3	P	03/15/19	12/20		197
31	HO	TROY	6	12/16/18	1	23	156	112.0	2.3	3.4	5.3	2.7	17500	2.4	3.1	428	540	B	38535	3803	1	P	03/08/19	12/13		82
32	HO	ACHIL-*RC	6	02/05/19	1	24	105	96.4	3.9	3.2	0.3	1.2	8288	4	3.1	331	259	C	29616	-747	1	P	04/26/19	01/31		80
33	HO	PROFIT	6	04/16/19	1	24	35	96.8	4.2	3.2	0.8		2922	4.6	3.5	135	102									53
34	HO	CHANNING	6	12/18/18	1	20	154	65.5	4.2	3.3	0.5	0.1	9188	4.4	3.2	400	297	E	23019	-3656	1	P	03/08/19	12/13		80
35	HO	DAMARIS	6	02/03/19	1	21	107	111.6	3.1	3.1	2.0	5.6	9593	3.8	3.3	364	318	B	34991	1757	1	P	04/26/19	01/31		82
36	HO		6	04/27/19	1	23	24	77.6	3.9	3.4	0.8		1524	4.3	3.8	66	58									42
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38	HO	SUPERSIRE	6	05/19/19	1	21	2																			20
39	HO	PROFIT	6	05/22/19	1	21																				17
40	HO	CHANNING	6	05/19/19	1	20	2																			20

Repro Codes
C. Do not breed
N. Open
P. Diagnosed pregnant

Status Codes
1. In milk
2. Calved
3. Dry
5. Left herd
6. First lactation
7. Entered herd
8. Aborted
9. Induced lact.

Rating Codes
A. Top Cows
B. Above Average
C. Below Average
D. Marginal Cows
E. Bottom Cows

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D) Interest
E) Labor
- 31. How often should a bulk tank be washed and sanitized?**
A) After each milking
B) Every time it is emptied
C) Daily
D) Biweekly
E) Weekly
- 32. Why is inbreeding a concern in dairy cattle?**
A) It can decrease ME milk production by 80 pounds per lactation for each percent increase in inbreeding.
B) It can decrease reproductive performance.
C) It can expose recessive genes.
D) All of the above
E) None of the above
- 33. What is generally considered the best material for covering a bunker silo?**
A) Mulch
B) Newspaper
C) Plastic
D) Sawdust
E) Straw

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34. Which of the following would result in disqualification in a PDCA showmanship contest?

- A) Chewing gum
- B) Clipping line not properly blended
- C) Crowding or bumping other animals when pulled into line
- D) Repeated striking of the animal
- E) Wearing inappropriate shoes

35. Calf starter should contain what percent protein?

- A) 2-6%
- B) 8-12%
- C) 18-22%
- D) 28-32%
- E) 38-42%

36. What instrument is used to give an animal a pill?

- A) Balling gun
- B) Elastrator
- C) Esophageal feeder
- D) IV tube
- E) Trocar

37. Which of the following is important in determining nutrient requirements of a lactating dairy cow?

- A) Bodyweight
- B) Milk production level
- C) Reproductive status
- D) All of the above
- E) None of the above

38. What is the normal temperature of a calf?

- A) 95.0°F
- B) 98.6°F
- C) 101.5°F
- D) 102.5°F
- E) 105.1°F

39. Which of the following minerals is classified as a micromineral required by dairy cows?

- A) Copper
- B) Magnesium
- C) Manganese
- D) Selenium
- E) Zinc

40. In 2017, milk production in the United States totaled 212.4 ___ pounds.

- A) Thousand
- B) Million
- C) Billion
- D) Trillion

For questions 41-50, use the cow information provided for the exam. The last test day was May 20, 2019. The report was generated on June 7, 2019.

41. When is cow 4 due to calve?

- A) October 16, 2018
- B) February 8, 2019
- C) May 30, 2019
- D) August 2, 2019
- E) August 30, 2019

42. How many second lactation cows are currently in milk?

- A) 5
- B) 7
- C) 8
- D) 20
- E) 27

43. How many cows in the herd are rated as "top cows"?

- A) 4
- B) 5
- C) 11
- D) 16
- E) 20

44. Which cow produced the most milk on the May 20 test day?

- A) 3
- B) 10
- C) 15
- D) 19
- E) 22

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45. How many cows have been labeled as “do not breed”?
- A) 4
 - B) 6**
 - C) 8
 - D) 18
 - E) 19
46. How many cows are open over 100 days and have not been bred, excluding those labeled as “do not breed”?
- A) 0**
 - B) 1
 - C) 6
 - D) 10
 - E) 16
47. How many cows have somatic cell scores greater than 5.0 on the current test day?
- A) 1
 - B) 3
 - C) 5
 - D) 6**
 - E) 11
48. Which cow has the worst Estimated Relative Producing Ability?
- A) 3
 - B) 11
 - C) 12
 - D) 27
 - E) 34**
49. What is cow 12’s protein percent for her lactation to date?
- A) 3.0
 - B) 3.1
 - C) 3.2**
 - D) 3.5
 - E) 3.9
50. Which cow has been in milk the longest this lactation?
- A) 1
 - B) 14
 - C) 15
 - D) 19**
 - E) 21