Agriscience Final Exam by C. Kohn, Waterford WI

Group Names:

Hour Date: Score: + = exceeded expectations. ✓= expectations were met but not exceeded. - = redo assignment

Directions: you may work in **groups of 2-3** to complete this exam. You may also choose to work alone. If you work in groups, you must alternate after every question (if you are with a partner, do every other question; if you are in a group of three, do every third question). Those not writing should be creating the answer that is written.

If a group does not split the work evenly and have every member contribute to every answer, they may be split up midway through the exam. Make sure *all* members are actively involved *all* of the time.

1. Hormones play a major role in regulating the reproductive cycle of a cow.

1) List each of the 5 hormones that are a part of the estrus cycle. Provide a description of the role of each.

1

2

3

4

5

1. Artificial Insemination (AI) has completely changed the face of America’s cattle industries.

1) List and describe 3 key benefits of AI.

2) List and describe 3 drawbacks of AI.

3) Explain (step-by-step) how a producer would artificially inseminate a cow using the retrovaginal technique.

4) Summarize how and why AI has changed the animal agriculture industry.

1. The first stage of a cow’s lactation cycle is usually the most likely to have a nutrition disorder.

1) Describe why a cow is most likely to get acidosis during this stage and how this problem occurs.

2) Describe why a cow is most likely to get ketosis during this stage and how this problem occurs.

3) Describe why a cow is most likely to get hypocalcemia during this stage and how this problem occurs.

4) Describe why a cow is most likely to get a displaced abomasum during this stage and how this problem occurs.

5) Describe why a cow is most likely to get a disorder of your choosing during this stage and how this problem occurs.

1. You are a “Moo Expert” at the Cows on the Concourse event at the Wisconsin State Capitol Building. During this event, people who normally do not get access to dairy cows have the opportunity to see them firsthand and ask questions. An individual comes to you and asks what cows eat. You decide to begin by describing the five things every organism needs in their diet. Include a description of these five things and their purpose below:

You then decide to focus on the three categories of ingredients specific to a cow’s diet. Describe those three items and their purpose below:

You decide to provide more details on forages. Provide some descriptions of possible forages below:

This person then asks about feeding cattle corn; he has heard that corn isn’t naturally a part of a cow’s diet and maybe shouldn’t be fed to them. How do you respond?

Finally, this person has heard milk is incredibly high in protein and asks where this protein comes from if cows are herbivores. How do you respond?