

NAME: \_\_\_\_\_

Animal Science 3903  
Final Exam -- Spring 1995  
Test ID 00004 -- Special Code 000001

**SPECIAL NOTE:** Each semester a very small number of students makes it a practice to come by my office after grades have been posted to ask that I “give” them enough points so that they can receive a higher grade. I confess that I am always embarrassed by this. It is not my place to “give” points that have not somehow been earned. I would request that no one indulge in this practice. I firmly believe in awarding the grade that is earned. If there is a problem with grading, we will handle it as always.

Your tentative final grade for the class will be posted by Monday at 10:00 a.m. at 109 Animal Science. We cannot give grades out over the phone. This assures your right to privacy under the law. It is also University policy. I apologize if this inconveniences you, but we have no choice in the matter. The grade will be tentative until all exams have been taken.

Part of taking an examination is in the reading and interpretation of the questions. Therefore, please do not ask the instructor to restate a question or define terms used in questions. Neither should you ask if your answer is correct or if your answer is what I'm looking for. However, if a question does not seem to make sense to you or if you detect typos then please call my attention to these matters.

**Read and Sign:** I \_\_\_\_\_ understand that taking this exam early, during prefinals week, is optional on my part. I could have chosen to take the exam during the regular final period.

TOPICS: 50% Ensuring Food Supplies, The Agricultural Animals that Serve Man, Cattle, Sheep, Goats, Cattle vs. Sheep vs. Goats, Swine, Poultry. Film In the Land of the Llama. Film: World Resource Distribution. Film The Rain Forest. 50% Comprehensive from the first 3 exams.

1. What continent has the largest percent of its total land under cultivation?  
a. The countries of the former USSR      b. Australia      c. Asia  
d. Europe      e. North and Central America
2. About \_\_\_\_\_% of US produced grains is used in the alcohol industry.  
a. 5      b. 10      c. 25      d. 50      e. hardly any
3. Choose the highest priority use for grain from this list.  
a. people food      b. pet food      c. beer brewing      d. distilleries      e. livestock feed
4. Pick the species which would be the main buffer for fluctuating grain prices in the US.  
a. sheep      b. goats      c. dairy cows      d. beef cattle      e. pets
5. Which of these is classified as a laboratory animal in the US but also gets used extensively as a meat animal. (one best answer)  
a. hamsters      b. mice      c. rats      d. rabbit      e. guinea pigs
6. Which of these livestock species is an important economic species more for aesthetic reasons than because it produces a useful product?  
a. dog      b. goose      c. ostrich      d. duck      e. alpaca

7. Which of these is the most widely distributed of the large agricultural animals?  
a. pig            b. goat            c. sheep            d. horse            e. cattle
8. Which of these is best able to use forages and roughages from a variety of grazing zones?  
a. horse            b. sheep            c. ass            d. cattle            e. goat
9. In Panama, I would expect to find mostly Bos \_\_\_\_\_.  
a. taurus            b. indicus            c. cattalins            d. ovus            e. equus
10. The predominate use of farm herds of cattle will be:  
a. religious            b. work            c. fiber            d. milk            e. meat
11. All these are countries having a major range beef industry except \_\_\_\_\_.  
a. United States            b. Australia            c. Canada            d. South Africa            e. China
12. The leading developing country in the world in the production of beef and veal is:  
a. India            b. Brazil            c. USA            d. Argentina            e. Japan
13. The leading continent in the world in the number of cattle is:  
a. South America            b. Africa            c. North America            d. Asia            e. Oceania
14. The #1 sheep producing country in the world is:  
a. USA            b. China            c. New Zealand            d. Australia            e. none of these
15. The pygmy goat is most important in:  
a. Europe            b. North America            c. Asia            d. Africa            e. South America
16. On which of these continents is goat's milk the least important?  
a. South America            b. Europe            c. Asia            d. Africa            e. North America
17. Which of these developed countries still has a sizable mohair industry?  
a. South Africa            b. Japan            c. Italy            d. Russia            e. France
18. Most of the world's cashmere production is in:  
a. South America            b. Oceania            c. Australia            d. Canada            e. Asia
19. Which of these is most likely to be used as a laboratory species?  
a. Pygmy goats            b. Meat goats            c. Angora goats            d. Dairy goats
20. All things being equal and goats, sheep and cattle are equally adapted, a developed agriculture farmer chooses \_\_\_\_\_.  
a. sheep            b. cattle            c. goats
21. Swine rank \_\_\_\_\_ among the large farm animals of the world in both numbers and distribution.  
a. first            b. second            c. third            d. sixth            e. tenth
22. If I am in a subsistence agriculture and the conditions are dry and the altitude is high, I will choose \_\_\_\_\_.  
a. sheep            b. cattle            c. goats

23. If I need to manage large numbers of animals with very little labor per animal and need to protect them from predators, I will probably choose \_\_\_\_.
- a. sheep            b. cattle            c. goats
24. If the conditions are in the humid tropics, I will probably be forced to select \_\_\_\_ for meat production.
- a. Bos taurus            b. Bos indicus            c. Angora goats            d. Sheep            e. Meat-type goats
25. The primary reason for which swine are raised in all levels of agricultural development is for \_\_\_\_.
- a. milk            b. meat            c. worship            d. work            e. manure production
26. Read the following statements and select the answer which best describes them:
- a. all are true    b. all are false    c. a, b & c are true    d. a & b are true    e. a, b & e are true
- a. Domesticated animals are an important part of the economy and/or culture of many human societies all around the world.
- b. On a world-wide basis, certain roles of animals provide inducements for farmers to increase food crop production.
- c. The value of animal agriculture in feeding the world's population is probably destined to become more important in the future.
- d. In modern highly industrialized societies, agricultural animals are a less important part of the economy than they are of the culture of the people.
- e. In most developed countries the primary reason for keeping agricultural animals is for some reason other than eating them.
27. Which of these is found in fewer numbers than any of the others?
- a. horses            b. mules            c. buffaloes            d. ducks            e. camels
28. Which of these is the least important source (by weight) of protein to the human population?
- a. plant products            b. meat            c. milk            d. fish            e. eggs
29. Which of these is the least important source of quality protein to the human population?
- a. plant products            b. meat            c. milk            d. fish            e. eggs
30. The length of the rainy season in the semi-arid tropics is:
- a. 0-2 months            b. 2-4 1/2 months            c. 4 1/2-7 months  
d. 7-11 months            e. 11 months or more
31. Which of these environments is the most used for animal agriculture?
- a. Sub-Humid Tropics            b. Semi-desert to desert            c. Tropical Rain forest  
d. Humid Tropics            e. Tundra
32. The most likely activity for people in a developing country living in the steppes who are not profit-motivated is:
- a. vegetable farming            b. mixed crop & livestock            c. ranching  
d. nomadic herding            e. none of these

33. Which of these religions has the least effect on animal distribution?  
a. Hinduism                      b. Islam                      c. Judaism                      d. Buddhism                      e. Christianity
34. Kosher food inspection is associated most closely with which religion?  
a. Judaism                      b. Christianity                      c. Jainism                      d. Islam                      e. none of these
35. The stresses of the physical environment are broken down into 5 categories. Which one of the following is not one of the categories.  
a. social                      b. disease                      c. geographical                      d. climate                      e. nutritional
36. The adjustments that result in increased tolerance to all stresses.  
a. behavior                      b. adaptation                      c. acclimatization                      d. none of these
37. Which of these types of deserts are typically found on the leeward side of high mountains?  
a. tropical deserts                      b. rain shadow deserts                      c. interior continental deserts  
d. none of these                      e. all of these
38. Which of these areas would most probably experience the greatest change in temperature from night to day?  
a. sub-humid tropics                      b. tropics                      c. semiarid  
d. desert                      e. tropical rain forest
39. Hindus are forbidden to eat:  
a. poultry                      b. lamb                      c. beef                      d. buffalo                      e. dairy products
40. Jews are forbidden to eat:  
a. pork                      b. veal                      c. chicken                      d. mutton                      e. beef
41. If the climate is classified as humid and temperate then the natural vegetation of the area is \_\_\_\_\_.  
a. short grass                      b. tall grass                      c. coniferous forest  
d. broadleaf or mixed broadleaf-coniferous forests                      e. prairie grasses
42. Pack horse of the Andes.  
a. Arabian                      b. llama                      c. Yak                      d. banteng                      e. Vicuna
43. According to Dr. Raun, the only place in the world where wildlife systems are systematically and effectively used to feed people is:  
a. African Veld                      b. Latin America -- in general                      c. Brazil  
d. Southeast Asia                      e. Sub-Saharan Africa
44. In dry regions, the major feed constraint is \_\_\_\_\_ of feed.  
a. quantity                      b. quality
45. What ancient civilization was built using the llama as the principal animal species?  
a. Mayan                      b. Aztec                      c. Roman                      d. Greek                      e. Incan
46. The condition of drought must be viewed in context of what is “normal” for an area. This means that drought is a relative condition.  
a. true                      b. false



63. Read the following statements and then select the answer from this list that is most correct.
- a. all of these statements are true
  - b. all of these statements are false
  - c. #3 is false, the others are true
  - d. #1 and #2 are true, the rest are false
  - e. #3 is true, the others are false.

Statement 1. In a developed agriculture a specific species of animal is usually kept to produce a specific, primary, specialized product. This is true even if the animal is capable of producing more than one product.

Statement 2. As a general rule, the higher the level of agricultural development of a country, the greater the emphasis of animal production on profit.

Statement 3. The greater the emphasis of an agriculture on profit, the less specialized the animals tend to be.

Statement 4. Animal production systems in a developing agriculture tend to be specialized.

64. Which of these products are sheep primarily produced for in a developing agriculture?
- a. milk
  - b. wool
  - c. meat
  - d. hair
  - e. hides
65. Annual, per capita consumption of all meats in developed countries most closely approximates \_\_\_\_\_ pounds.
- a. 5
  - b. 10
  - c. 30
  - d. 50
  - e. 100+
66. Read the statements below and then pick the best answer from those provided.
- a. all are true
  - b. all are false
  - c. all are true but #1
  - d. all are true but 1 & 3
  - e. all are true but statement 1, 2 & 3.

Statement 1. Beef production is increasing in quantity on a world-wide basis.

Statement 2. The increase in poultry production in both developed and developing countries is happening because of improved technology.

Statement 3. The most rapidly expanding meat in total production on a world-wide basis is poultry.

Statement 4. Most meat comes from an annual slaughter of 15 billion head of domestic animals and fowl.

Statement 5. The guinea pig is used in some countries as food.

Statement 6. Carnivorous predator animals consume at least as many and probably more animals per year than the human population.

67. The highest income groups in developing countries generally spend about \_\_\_\_% of their food expenditures for meat, fish and dairy products.
- a. 10
  - b. 20
  - c. 30
  - d. 60
  - e. 5
68. Tannin affects \_\_\_\_\_ digestibility in plants.
- a. fat
  - b. carbohydrate
  - c. Vitamin
  - d. mineral
  - e. protein
69. The specific amino acid most frequently found deficient in the diets of humans who eat large amounts of root crops is \_\_\_\_\_.
- a. methionine
  - b. tyrosine
  - c. phenylalanine
  - d. lysine
  - e. none of these

70. On a world-wide basis, which of these is the most popular meat?  
a. horse            b. lamb            c. goat            d. poultry            e. beef
71. The developing countries of the world have about \_\_\_\_\_% of the agricultural animals.  
a. 15            b. 19            c. 25            d. 33            e. 66
72. On a world-wide basis, which of these is decreasing in production?  
a. beef            b. poultry            c. pork            d. lamb            e. goat
73. The most important producer of milk in the developing world is the \_\_\_\_\_:  
a. yak            b. goat            c. sheep            d. cow            e. buffalo
74. The least important producer of milk for the human population.  
a. sheep            b. goats            c. horses            d. cattle            e. buffalo
75. With regard to the following statements:  
a. none of these answers is acceptable            b. 1, 2 and 9 are false            c. 1, 2, 3 & 9 are false  
d. 3, 7 & 9 are false            e. 3, 4, 5, 6, 7 & 8 are false

Statement 1. In the developing countries, almost all the milk produced comes from buffalo.

Statement 2. The average North American consumes the equivalent of two quarts of milk per day.

Statement 3. Some Nomadic societies consume more milk per capita than developed country societies.

Statement 4. There are around 7000 cheeses found around the world.

Statement 5. Lactose intolerance is a problem which was once considered important enough to significantly restrict the potential for using milk as a food but which is now not considered much of a problem.

Statement 6. Per capita milk consumption is increasing in developing countries and declining in developed countries.

Statement 7. There is no conclusive evidence that milk consumption is bad for adult humans because of its cholesterol content.

Statement 8. It is possible to remove cholesterol from milk.

Statement 9. Fat from milk is especially valued in developing countries, more so than in developed countries

76. With regard to the following statements:

- a. all are true
- b. all are true but 1 of them
- c. all are true but 2 of them
- d. all are true but 3 of them
- e. all but 4 of them are true.

Statement 1. Fiber products produced by animals are generally considered to be a renewable resource.

Statement 2. In developed agriculture, skins and hides are usually by-products of animal agriculture.

Statement 3. Pelts are skins with the hair on.

Statement 4. In the developed countries, the value of hides is not equal to the value of the carcass.

Statement 5. The U. S. is the largest single producer of usable skins in the world.

Statement 6. Hides and skins are used for food in many countries.

Statement 7. Mohair is produced by Angora goats.

77. Typical cashmere yield/animal each year is about:

- a. 2-3 oz.
- b. 1 lb.
- c. 5 lb.
- d. 16 lb.
- e. 19 lb.

78. Which of these animals produces the finest fiber?

- a. Kashmir goat
- b. alpaca
- c. sheep
- d. domestic llama
- e. vicuna

79. The conversion of grain to meat by the hog is in a ratio of \_\_\_\_\_ lbs. feed to 1 lb. of meat.

- a. 1/3
- b. 1
- c. 2
- d. 3
- e. 5

80. The most common method of rearing swine in the developing world is:

- a. as scavengers
- b. as consumers of human waste
- c. in confinement operations
- d. as gleaners in grain fields

81. Continent where most of the world's concentration of hogs are.

- a. N. America
- b. Africa
- c. South America
- d. Europe
- e. Asia

82. In Europe the hog industry is closely associated with which other animal industry?

- a. bakery
- b. beef
- c. poultry
- d. aquaculture
- e. dairy cattle

83. What is the single most important feed for hogs in the US?

- a. garbage
- b. bakery waste
- c. pasture
- d. corn
- e. milo

84. In the developing world, hogs are primarily a function of \_\_\_\_\_.

- a. grain supplies
- b. disease resistance
- c. climate
- d. human population
- e. predator control

85. Which of these is the best scavenger and the best at staying alive when it is young?

- a. duck
- b. goose
- c. chicken
- d. ostrich
- e. swan

86. Top egg producing country in the world.

- a. Brazil
- b. China
- c. Japan
- d. Canada
- e. USA

87. Which of these has the fewest followers on a world-wide basis?  
a. Muslims                      b. Jainists                      c. Jews                      d. Buddhists                      e. Hindus
88. Which of these is the best adapted to confinement?  
a. pigs                      b. beef cattle                      c. chickens                      d. ducks                      e. dairy cattle
89. Almost all the \_\_\_\_\_ of the world are found in the developing countries.  
a. chickens                      b. ducks                      c. turkeys
90. Which is the largest producer of turkey?  
a. USA                      b. Canada                      c. Russia                      d. Mexico                      e. Argentina
91. Swine are found largely in \_\_\_\_\_ zones.  
a. tropical                      b. desert                      c. temperate                      d. permafrost                      e. tropical desert
92. It is quite possible to find several hundred species of birds in 1 square mile.  
a. true                      b. false
93. Rain forests are considered to have at least \_\_\_\_\_ of the world's species.  
a. 10                      b. 15                      c. 25                      d. 50                      e. 90
94. What river basin is associated with the world's largest rain forest?  
a. Nile                      b. Amazon                      c. Mississippi                      d. Ganges                      e. Thames
95. The largest terrestrial carnivores to stalk the world's rain forests are members of what animal family?  
a. cat                      b. wolf                      c. reptile
96. The basic unit of biodiversity is the:  
a. planet                      b. gene                      c. species                      d. ecosystem
97. What is the major small grain planted for pasture in Argentina?  
a. Rye                      b. Wheat                      c. Corn                      d. oats                      e. Barley
98. The Patagonia region in Argentina is best described as:  
a. cold desert                      b. hot desert                      c. grasslands                      d. temperate forest                      e. savanna
99. Which end of South America receives the least amount of rainfall?  
a. north                      b. east                      c. south                      d. west
100. Why don't N. American countries buy S. American fresh beef?  
a. Hoof & Mouth Disease                      b. Brucellosis                      c. Bangs                      d. Sleeping Disease

### EXTRA QUESTIONS:

The amount of arable land per person in the world is \_\_\_\_\_.

- a. increasing      b. decreasing

World population is destined to double by the year 2000.

- a. true      b. false

If we fed less grain to livestock, we would have more grain to feed to people.

- a. true      b. false

In developing countries where the animal grain market has expanded in recent years, total grain production has shown the greatest consistent rise during the last decade.

- a. true      b. false

Only \_\_\_\_ of the typical rations for laying hens, broilers, pigs, beef cattle and milk cows contains food that would be consumed by humans.

- a. 10-15%      b. 20-25%      c. 30-35%      d. 40-45%      e. 48%

The major part of feed energy in the US comes from \_\_\_\_\_. (Pick the best answer.)

- a. grains      b. by-products of grain processing      c. household waste  
d. forages and by products      e. citrus pulp

Use of whole cottonseed in cattle feeding helps make US cotton competitive in world markets.

- a. true      b. false

The daily food consumption for our pets in the US (excluding horses) would provide the energy for \_\_\_\_\_ people

- a. 100,000      b. 1 million      c. 5 million      d. 18 million      e. 60 million

There are \_\_\_\_\_ domestic insects.

- a. 1      b. 2      c. 4      d. 6      e. 8

The major reason for the domestication of the swan was to be a food species.

- a. true      b. false

If climatic conditions are hot, I would expect to find Bos \_\_\_\_\_ cattle.

- a. taurus      b. indicus

Which of these cattle are generally more productive for milk production?

- a. Bos indicus      b. Bos taurus

The level of agricultural development dictates the uses the population has for cattle and therefore the type of cattle present.

- a. true      b. false

The more highly developed the agriculture, the more lively livestock production is to be highly specialized.

- a. true      b. false

Developed agriculture dairies are always intensively managed.

- a. true      b. false

A highly developed, US style dairy industry only exists in countries with a developed agriculture although some poor countries are developing dairy industries.

- a. true            b. false

The dairy industries of all the developed countries are very similar.

- a. true            b. false

If the Holstein is to survive and produce well in a third world dairy, she requires better feed and care than the indigenous cattle.

- a. true            b. false

In high level subsistence farms, cattle are the primary source of:

- a. power            b. meat            c. fiber            d. transportation            e. culture

In primitive agriculture, which of these will likely be the most important use of cattle?

- a. meat            b. milk            c. non-food uses  
d. A, b & c are all bad answers because these 3 uses are equal.  
e. The real answer to this is b and c. A is the only one that isn't important.

Most of the top 10 beef-producing countries have a well-developed range industry.

- a. true            b. false

With regard to the following statements:

- a. all are false            b. only 1 statement is true            c. 2 of these are true  
d. 3 of these are true            e. 4 of these are true

Several of the top 10 beef-producing nations in the world are in Africa.

All of the top 10 milk-producing countries of the world have a well-developed agriculture.

On a worldwide basis, the productivity of cattle for meat has improved substantially in the last decade.

Neither Africa nor Asia has any First World nations.

Most of the cattle of Africa are improved breeds.

In the cold areas of the world, most of the sheep are hair sheep.

Most of the pelt-producing breeds of sheep are produced in the first world.

The single most important thing determining where cattle and/or sheep are found in developed countries is the availability of relatively cheap roughage.

If cattle and sheep are equally adapted to an area, sheep will usually predominate.

In a developed agriculture, the use of sheep differs depending on whether the predominant production system is intensive farm flocks or extensive range production.

Meat production from sheep is usually more profitable than wool production.

Most farm sheep flocks are meat-producing rather than wool-producing.

- a. true      b. false

Wool production from sheep is more profitable than meat production if forage conditions are especially poor.

- a. true      b. false

\_\_\_\_\_ sheep predominate in subsistence agricultures.

- a. single purpose      b. dual purpose      c. triple purpose      d. hair sheep

Almost all of the Persian Lamb skins in the world are produced in countries with primitive or subsistence agricultures.

- a. true      b. false

In a primitive agriculture, sheep are much more valuable as a source of milk than they are for any other use.

- a. true      b. false

The higher the level of economic development, the more likely it is that sheep and goats will be raised for meat and the less likely that cattle will be eaten.

- a. true      b. false

Wool is emphasized in sheep breeding programs in primitive agricultures.

- a. true      b. false

Most of the world's sheep are found in a relatively small number of countries although sheep are found everywhere cattle are.

- a. true      b. false

Sheep are of greatest economic importance in \_\_\_\_\_.

- a. Southern Hemisphere      b. Northern Hemisphere

The single most important use of goats in the world is for meat.

- a. true      b. false

Only \_\_\_\_\_ of the world's top 10 goat-producing countries are developed.

- a. 0      b. 1      c. 2      d. 3      e. 4

Developed countries account for most of the world's goat meat and milk production even though they have only 1/3 of the world's goats.

- a. true      b. false

Most of the goats found in the developed world are kept to produce \_\_\_\_\_.

- a. meat      b. milk      c. fiber      d. all 3 because they are triple purpose

When goats are kept in developed countries, the product they are kept to produce is determined by the amount of available forage.

- a. true      b. false

Which of the countries listed produces the most goats?

- a. Turkey      b. USA      c. Iran      d. China      e. Pakistan

The US is a major goat-milk and mohair producer.

- a. true      b. false

Goats produce \_\_\_% of the world's total milk.

- a. about 1    b. less than 2      c. almost 11    d. so little it is uncountable    e. none of these

The USA has been the world's leading producer of mohair.

- a. true      b. false

The best method of collecting cashmere is to clip the animals like we would clip wool from a sheep. Just be sure to wait until the weather turns warm.

- a. true      b. false

There are more than 200 breeds and strains of goats that have been widely distributed around the world.

- a. true      b. false

Which of these would most likely be used as a specialized milk goat?

- a. Saanen    b. Angora    c. Pygmy    d. Spanish

Considered the most disease resistant.

- a. Pygmy goats      b. Meat goats      c. Angora goats      d. Dairy goats

Which of these was developed from African stock?

- a. Alpine    b. Angora    c. Saanen    d. Toggenberg    e. Nubian

The goat is a better forager than the cow and will eat things the cow will not.

- a. true      b. false

The goat is most valued as a food producer under harsh conditions.

- a. true      b. false

Swine are well adapted to nomadic conditions.

- a. true      b. false

If I am trying to decide between cattle and sheep, and the conditions are hot and humid, I will probably choose \_\_\_\_\_.

- a. cattle      b. sheep

Profit is the most important deciding factor in the choice of animal species in a developed agriculture.

- a. true      b. false

Cattle and sheep operations are most often:

- a. intensive      b. extensive

Dairy herds have high fix costs so they must \_\_\_\_\_ gross returns.

- a. minimize      b. maximize      c. ignore

Management must be the very best in this type of operation. (developed ag)

- a. purebred beef cattle      b. sheep      c. purebred sheep      d. dairy cattle      e. fiber goats

Which of these countries has the most hogs?

- a. Spain                      b. USA                      c. Israel                      d. Korea                      e. Japan

The biggest problem with the pig in the developed world is that it is in direct competition with man for available food supplies and will thus decrease in production when world demand for grain forces grain prices too high.

- a. true                      b. false

In the developed world, swine enterprises have \_\_\_\_\_ fixed costs of production.

- a. high                      b. low

In the developed world, hog numbers are largely a function of grain availability and not the population.

- a. true                      b. false

The major desirable characteristic which Chinese pigs possess that American pigs do not is:

- a. superior prolificacy                      b. conformation                      c. superior meat producing ability  
d. positive feed conversion                      e. superior hair-producing abilities

Which of these species is the most efficient converter of feed grain to meat?

- a. turkeys                      b. pigs                      c. chickens                      d. beef cattle                      e. horses

Poultry are produced predominantly for:

- a. religious purposes                      b. food                      c. labor                      d. feathers                      e. manure

Which of these is found in the least numbers in the world?

- a. chickens                      b. ducks                      c. turkeys

Which of these is found in greatest numbers in the world?

- a. chickens                      b. ducks                      c. turkeys