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DEPARTMENT: ANIMAL PRODUCTIONS AND PUBLIC HEALTH

DISCIPLINE: ANIMAL NUTRITION AND AGRONOMY

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BIBLIOGRAPHY

Courses (briefly forms), Word format, 69 pages, existing at discipline – Nicolae Mircea

Topics

Year I (2014/2015 academic year)

* *Feeds and body animal's composition* (water, protein, lipids, carbohydrates, minerals, vitamins) and *anti-nutritional factors content of feeds*

* *Evaluation of feed's nutritive values* (based on digestibility, on energy content, on protein content) and systems for expressing the energy and protein values of feeds

* *Feeds used in animal diets* (green fodders, silages, hays and straws, roots, tubers and their by-products, cereals, protein concentrates, compound feeds)

Year II (2014/2015 academic year)

* *Animal requirements* (for maintenance, for growth, for wool production, for reproduction, for egg production, for milk production)

* *Feeding of animals* (cattle feeding, sheep feeding, horses feeding, pigs feeding, poultry feeding, dogs and cats feeding)

QUESTIONS

1. Which are the main factors that influence the content of the animal body in water?
   a) share of the bones in carcasses
   b) age and stage of fattening
   c) species
   d) water resulting from chemical reactions in the body
   e) kind of tissues

2. The content of water in the feeds is very variable. Which of the following have the lowest level?
   a) green forages
   b) fresh industrial by-products
   c) cereal's grains and leguminous seeds

d) silages
e) melons

3. The protein content of the vegetable feeds is very different. Which of these has the highest level?
a) roots and some fresh by-products
b) green fodders
c) grasses hays and cereals grain
d) leguminous hays
e) meals - by-products of oilseeds

4. From the essential amino acids it was split a sub-group, called *limiting amino acids*. Who are these?
a) lysine, methionine, threonine, tryptophan
b) isoleucine, phenylalanine
c) valine, arginine
d) glycine, taurine
e) leucine, histidine

5. Fibrous proteins have structural roles in animal cells and tissues. Which are these?
a) glucagon and leptin
b) albumins and histones
c) protamines and globulin
d) collagens, elastin and keratins
e) glycoproteins and lipoproteins

6. A considerable variety of nitrogenous compounds, other than amino acids, peptides and complexes proteins occur in plants and animals. Which of the following are from this group?
a) amines, amides, nitrates
b) phosphoproteins, chromoproteins
c) glycoproteins, lipoproteins
d) collagens, elastin
e) aspartic acid, glutamic acid

7. The lipids in the body perform, mainly, energetic role due to the high energy value. What is this?
a) 9.5 kcal/g
b) 6.1 kcal/g
c) 2.5 kcal/g
d) 4.2 kcal/g
e) 5.7 kcal/g

8. From the fatty acids was separated a group, *the essential fatty acids*. Which of the following is part of this group?
a) gluco-lipids and galacto-lipids
b) linoleic acid, linolenic acid and arachidonic acid
c) stearic acid and palmitic acid
d) palmitic acid and oleic acid
e) glutamic acid and hidroxiglutamic acid

9. In the animals body, the proportion of lipids depending on the species, age and body status (the degree of fattening). What is their maximum percentage which can be reached?
   a) 2-3%
   b) 60-70%
   c) 40-45%
   d) 10-15%
   e) 15-20%

10. In the animal body carbohydrates are in very small quantities. What is their share?
   a) more than 5% of the body weight
   b) depends on the weight of the animals
   c) depends on the content of the feeds in carbohydrates
   d) less than 1% of the body weight
   e) depends on the structure of the rations

11. What are the main forms under which hexoses (simple carbohydrates) are found in feeds?
   a) arabinose and xylose
   b) glucose and fructose
   c) xylose and ribose
   d) lactose and maltose
   e) mannose and galactose

12. Which of the following feeds and foods are characterized by a high content of sucrose (a disaccharide composed of one glucose molecule and one of fructose molecule)?
   a) germinated barley
   b) cotton
   c) sugar beet and honey
   d) mature hays
   e) silages

13. Which of the following complex carbohydrates is found in the form of granules in feeds, with different size and shape?
   a) lignin
   b) pectic substances
   c) glycogen
   d) hemicelluloses
   e) starch

14. Which of the following complex carbohydrates is found only in the animal body?
   a) starch
   b) cellulose
   c) lignin
   d) glycogen
   e) pectic substances

15. What are the practical consequences of using in animals diets, especially monogastric animals, feeds containing protease inhibitors?
   a) lack of appetite
   b) reduction growth rate
   c) muscular dystrophies
   d) deformity of the legs
   e) behavior changing

16. What is the mineral element on which oxalic acid, an anti-nutritional factor, found in some feeds, has a negative effect in the animal body?
    a) phosphorus
    b) iron
    c) selenium
    d) calcium
    e) cloride

17. What is the mineral element with the highest share in the animal body?
    a) iron
    b) sulphur
    c) chloride
    d) copper
    e) calcium

18. What are the most suitable ratios between calcium and phosphorus that diets must provide to farm animals, other than laying birds?
    a) this ratio is not important
    b) 1.5-2 parts of calcium to one part of phosphorus
    c) 7-8 parts of calcium to two parts of phosphorus
    d) 3-4 parts of calcium to one part of phosphorus
    e) 5-6 parts of calcium to one part of phosphorus

19. Fat-soluble vitamins can be stored in the animal body, which is an advantage. But, after administration high doses, there may also be a disadvantage. What is this?
    a) potential toxicity, which can affect the health and performances of animals
    b) cannot be administered to animals discontinuously
    c) affects the quality of the meat
    d) level of milk production decreases
    e) intake capacity of the animals decreases

20. How it is expressed the content of feeds in vitamins A, D and E?
    a) milligrams per kg
    b) grams per 100 kg
    c) international units (IU) per kg
    d) grams per kg
    e) milligrams per 100 kg

21. Water-soluble vitamins can’t be stored in the body. This fact also has one advantage. What is this?
    a) stimulates respiratory activity
    b) does not produce toxic effects on the animals, because in case of excess they are eliminated through the urine.
    c) can be administered to animals in a discontinuously manner
    d) increases the percentage of fertility
    e) increases the absorption rate of other nutrients

22. Horses, compared with ruminants, digest more ineffective cellulosic feeds (high level of crude fiber). Why?
    a) higher capacity of digestive tract
    b) low digestion rate in the stomach

c) consume more than they need
d) decreases the amount of faeces removed
e) reduced efficacy of mastication and a faster transit in digestive tract

23. What is the percentage of energy loss through faeces (from gross energy) when using normal rations, with classical structures?
a) strictly 25% for all animal species
b) about 30% for ruminants animals and 20% for monogastric animals
c) depends on the energy retained in the body, in all animal species
d) about 40% for ruminants animals and 40% for monogastric animals
e) about 20% for ruminants animals and 40% for monogastric animals

24. Comparative slaughter method, used for determining the efficiency of energy utilisation in the body, is applicable for:
a) determining the retained energy, the energy fixed in the tissues
b) energy apparently usable in the body
c) the energy used in the digestive tract
d) determining energy contained by the organic matter of feeds
e) determining metabolisable energy

25. French feed units (LFU, MFU), a system for expressing the energy value of feeds, used for ruminants, imply to determine their content in:
a) metabolisable energy (ME)
b) retained energy (RE)
c) digestible energy (DE)
d) net energy (NE)
e) gross energy (GE)

26. Protein Efficiency Ratio (PER) is a method used for:
a) determining the protein digestibility of feeds
b) appreciation the quality of protein from the feeds
c) establishing the degree of absorption of proteins in the body
d) relationships between essential and non-essential amino acids
e) the amount of protein consumed by animals

27. Intestinally Digestible Protein (IDP) system is one of the most popular for assessing the protein values of feeds used in ruminants. Each feed has, under this system, two potential protein values. Which are these?
a) IDPMN and IDPA
b) IDPA and IDPME
c) CP and IDPE
d) IDPN and IDPE
e) FOM and CP

28. Metabolisable Protein (MP) system show the protein values for the same feed in:
a) REp (retained energy as protein) and REf (retained energy as fat)
b) CP (crude protein) and DCP (digestible crude protein)
c) DCP (digestible crude protein) and IP (intake protein)
d) DT (theoretical degradability of protein in the rumen) and CP (crude protein)
e) RDP (rumen degradable protein) and RUP (rumen un-degradable protein)

29. Maintenance energy requirement represent a sum of components. Which of the following holds the largest share in the total energy requirement for maintenance?
    a) ensuring voluntary movements
    b) maintaining constant body temperature
    c) oxygen supply
    d) intake and digestion of feeds
    e) maintaining cellular and tissues integrity and functioning of internal organs

30. What is metabolic weight?
    a) an exponential function between body weight and body surface
    b) the difference between the weight of the animals before and after feeding
    c) the weight of the animals determined weekly
    d) the weight of the animals when they reach somatic maturity
    e) weight of animals slaughtered after removal of the digestive tract

31. Species influence the energy requirement for maintenance.. Which species have a higher energy requirement for maintenance, by comparison to the same body weight (100 kg for example)?
    a) there are no differences from this point of view
    b) sheep more than cattle
    c) ameliorated species more than rustic species
    d) goats more than sheep
    e) sheep more than goats

32. The amount of metabolic nitrogen excreted (urine and faeces) can be determined by:
    a) administering to animals rations free of protein, but balanced in other nutrients
    b) administering to animals certain rations with different protein levels
    c) only by measuring the quantities of faeces removed daily
    d) by periodically determining the nitrogen content of urine
    e) measurement of urine and faeces removed daily

33. Advancing of the animals in age and in weight leads to changing the *chemical composition* of the body. What are the main changes?
    a) increase obviously protein content and mineral content
    b) decrease fat content and increase mineral content
    c) increase water content and decrease vitamin content
    d) decrease water content and increase fat content
    e) no changes in body composition occur

34. What is the caloricity (energy value) of the raw wool?
    a) 4100-4200 kcal/kg
    b) 9000-10000 kcal/kg
    c) 2100-2500 kcal/kg
    d) 1000-2200 kcal/kg
    e) under 1000 kcal/kg

35. Protein fixed in the mother's body, in particular in the last third of pregnancy, is important, exceeding that fixed in foetuses. At sows, in this last part of the pregnancy, how many times is stored protein in the mother's body then in foetuses?
    a) 8- 9 times
    b) 3-4 times

c) 10-11 times
d) 6-7 times
e) 1.5-2 times

36. Which is requirement of calcium for maximum egg production and eggshell thickness?
a) 1 g/day
b) 7 g/day
c) 4 g/day
d) does not exist such requirement
e) 10 g/day

37. Throughout the entire productive life of cows, in which lactations the maximum milk production is reached?
a) first lactation
b) lactation 5 and 6
c) lactation 7 and 8
d) lactation 3 and 4
e) lactation 9 and 10

38. Rations containing more protein induce an increase of the milk cow protein level. Why?
a) a greater part escapes to ruminal degradation and is absorbed in small intestine
b) a higher amount of protein is eliminated through the urine
c) the spectrum of rumen fermentations changes
d) grow the glandular tissue of the udder
e) proteins are transformed into peptides, then into amino acids

39. Introduction large quantities of fats in the rations almost always determine a decrease of milk cow fat content. Why?
a) as a result of the increased protein content of milk
b) feeds intake decreases
c) due to the interaction of fats with vitamins
d) increases ruminal pH
e) ruminal fermentations changes

40. Stage of vegetation is an important factor influencing the composition and nutritional value of pastures. How does the composition of plants evolve as their growth progresses?
a) only the content in crude fiber decreases
b) increases content in crude fiber and decreases protein content
c) content in crude fiber and protein remains constant
d) increase in protein and mineral content
e) only increases the protein content

41. What is the reason why green perennial leguminous are not recommended to be given to animals alone?
a) high protein content and low energy content
b) lower level of consumability
c) cannot cover the animal protein requirement
d) low protein content and high energy content
e) low calcium content

42. What is the optimal harvest time for alfalfa (*Medicago sativa*), considering that maximum yield per hectare is not achieved in the same time with maximum nutritional value?
    a) end of flowering
    b) first stage of vegetation
    c) between late bud stage and beginning of flowering stage
    d) at the time of stems lignification
    e) when the leaves begin to detach from the stems

43. Green alfalfa (*Medicago sativa*) can cause the appearance of tympanism (frothy bloat) in ruminants. What is the main reason?
    a) when is associated in rations with hay
    b) if is consumed in the stall (shelter)
    c) if is wilted before to be administered
    d) if is consumed during the night
    e) rapid consumption of immature plants

44. White clover (*Trifolium repens*) has some particularities to the red clover (*Trifolium pratense*). Which are these?
    a) better resistance to cold and records higher productions
    b) record lower productions
    c) loses more leaves when it is transformed into hay
    d) cannot be grown in combination with other plants
    e) lower energy value

45. Among the green perennial leguminous, which has higher tolerance to drought and frost and adapts to a wide range of soils?
    a) red clover (*Trifolium pratense*)
    b) sweet clover (*Melilotus albus*)
    c) alfalfa (*Medicago sativa)*
    d) peas (*Pisum sativum*)
    e) field beans (*Vicia faba*)

46. Peas (*Pisum sativum, Pisum arvense*) are the most popular annual leguminous plant. What is the benefit of cultivating it in pure culture (alone)?
    a) stems lignify harder than others annual leguminous
    b) leaving the field early, allowing seeding in the same year on the same land other plants
    c) can be transformed into silage
    d) increase calcium content
    e) can be turned into hay

47. Which of the following cultivated plants is well suited to grazing?
    a) sorghum (*Sorghum spp*.)
    b) Italian ryegrass (*Lolium multiflorum)*
    c) barley (*Hordeum vulgare)*
    d) tall fescue *(Festuca arundinacea)*
    e) English ryegrass (*Lolium perenne*)

48. Maize (*Zea mais*), compared to other green plants, has its own characteristic, regardless the state of vegetation. What is this?
    a) balance between energy and protein
    b) digestibility very high and constant

c) relatively low energy value
d) high protein value
e) low degree of consumability

49. Which of the following types of fermentations has the greatest negative influence on the quality of the silages?
a) lactic fermentation
b) acetic fermentation
c) butyric fermentation
d) alcoholic fermentation
e) lactic and alcoholic fermentations

50. Which of the following types of silages fermentations are produced by yeasts in an aerobic environment?
a) butyric fermentation
b) alcoholic fermentation
c) lactic fermentation
d) acetic fermentation
e) lactic and acetic fermentations

51. What is the level of total (overall) losses when transforming green plants into hays?
a) 5% for dry matter and 10% for digestible crude protein
b) 5% for dry matter and 15% for digestible organic matter
c) 10% for dry matter and 10% for digestible crude protein
d) 20% for dry matter and 25% for digestible organic matter
e) 5% for dry matter and 5% for digestible organic matter

52. What is the reason why alfalfa hay is an ideal complement in rations for ruminants, of the silages, especially corn silage?
a) balances the energy value of the rations
b) balances the protein value of the rations and rumen fermentative processes
c) for vitamin balance of rations
d) for mineral balance of rations
e) for balance anions – cations ratio in rations

53. Straws are generally recognized for their high cellulose content and low protein content. By comparison, which have higher protein content (among the straws)?
a) peas and beans straws toward wheat straw
b) barley straw toward oat straw
c) oat straw toward rye straw
d) rye straw toward rice straw
e) oat straw toward barley straw

54. Why the fodder beet is recommended to be administered cruel (non-boiled) in pig feeding?
a) increases the rate of consumability
b) has a higher protein content
c) increases the digestibility
d) boiling causes poisoning by reducing the nitrates (which it contains) to nitrites
e) better energy-protein ratio

55. Which of the following carbohydrates are found in the highest proportion in potatoes?
a) glycogen

b) pectic substances
c) hemi-cellulose
d) glucose and sucrose
e) starch

56. Cereal grains are deficient in essential (indispensable) amino acids. In which in particular?
a) tryptophan and leucine
b) lysine and methionine
c) arginine and histidine
d) phenylalanine and valine
e) leucine and isoleucine

57. Maize (corn) has different types, depending on the color of the grains. Which of these contains a pigment called cryptoxanthin?
a) white maize
b) green maize
c) yellow maize
d) blue maize
e) violet maize

58. Barley is a popular grain in the feeding of farm animals. For what species in particular?
a) sheep
b) rabbits
c) geese
d) pigs
e) turkeys

59. Which of the following cereals are used limited in the diets of ruminants, to avoid possible digestive disorders, because it forms a pasty mass in rumen?
a) maize
b) oat
c) barley
d) sorghum
e) wheat

60. Triticale is a hybrid that comes from the crossing of two known cereals. Which are these?
a) wheat and rye
b) oat and rice
c) maize and sorghum
d) wheat and barley
e) barley and rice

61. Cereal's processing through different methods (hot or cold) is practiced for increasing animal performances. In which species the processing of cereals has no notable advantages?
a) poultry
b) sheep
c) pigs
d) horses
e) monogastric species

62. Peas can be used virtually for all animal species, but restricted, containing several anti-nutritional factors. What is the level of incorporation in the concentrate mixtures?
    a) 20-30% in young animals and 10-20% in adults' animals
    b) 5-10% in young animals and 5-10% in adults' animals
    c) 30-40% in young animals and 30-40% in adults' animals
    d) 10-15% in young animals and 20-25% in adults' animals
    e) 5-10% in young animals and 30-40% in adults' animals

63. Untreated whole soybean may be used only in ruminants' diets, with fully developed digestive tract. Why?
    a) because monogastric animals do not consume it
    b) because the anti-nutritional factors which it contains are partially inactivated in rumen
    c) because it is available in small quantities
    d) because ruminants digest the protein better
    e) because ruminants better tolerate excess in calcium

64. Soybean meal and sunflower meal are two important sources of protein for animals, but both are deficient in some essential amino acids. Which is the first limiting amino acid?
    a) arginine in soybean meal and cystine in sunflower meal
    b) leucine in soybean meal and isoleucine in sunflower meal
    c) methionine in soybean meal and lysine in sunflower meal
    d) methionine in both feeds
    e) lysine in both feeds

65. If the dry matter content and the fat content are higher, the energy value of whole milk is higher. The limits range from?
    a) 500 kcal/kg for mare's milk to 1600 kcal/kg for bitch milk
    b) 750 kcal/kg for cow's milk to 1200 kcal/kg for ewe's milk
    c) 500 kcal/kg for mare's milk to 1300 kcal/kg for sow's milk
    d) limits depend on the feeding mode
    e) limits depend on the protein content of milk

66. Fish meal has a great influence on the process of development of the youth animals. How can this be explained??
    a) high mineral content
    b) contains a growth factor known as "animal protein factor" (APF)
    c) can be included in the diets without any restrictions
    d) contain high levels of polyunsaturated fatty acids
    e) high vitamin content

67. Meat meal obtained from slaughter by-products of terrestrial animals is prohibited in European Union, as a source of protein for animals. What is the exception?
    a) meat meal derived from poultry slaughterhouse
    b) meat meal treated at very high temperatures
    c) meat meal obtained under high pressure
    d) meat meal defatted
    e) meat meal derived from lean meat, as would be used for human consumption

68. To be included in compound feeds cereal grains must meet certain quality. What are the main ones?
    a) energy content
    b) protein content

c) vitamin content
d) water content (13-14%) and the degree of fungal contamination
e) mineral and vitamin content

69. Why it is necessary to be included in compound feeds enzymes, as feed additive?
a) because stimulates feeds intake
b) because not all components of feeds are broken down by the enzymes of animal body
c) because in compound feeds minerals are included also
d) to release the potential energy of feeds
e) to balance the ratio energy-protein from compound feeds

70. Generally speaking, adult ruminants can synthesize the amino acids they need. Exceptions are high-producing ruminants, such as dairy cows, to which it is necessary to supplement the rations with synthetic amino acids. Which are in order the main limiting amino acids for cows with high milk production?
a) lysine followed by leucine
b) threonine followed by arginine
c) methionine followed by lysine
d) leucine followed by lysine
e) glycine followed by arginine

71. Prestarter compound feed, compared to other types of complete compound feeds, is characterized primarily by:
a) are produced only in pelleted form
b) very high nutrients content
c) are made up only of protein sources
d) are made up only of vitamin sources
e) lower content in minerals

72. Carbohydrates digestion in the rumen involves a whole series of reactions ending in a mixture of volatile fatty acids (VFA). When using ordinary rations to cattle, which of them holds the largest share in the total VFA?
a) propionic acid
b) butyric acid
c) iso-butyric acid
d) acetic acid
e) lactic acid

73. During the first part of lactation in cows (8-10 weeks after calving) they physiologically mobilize some of the body reserves. Why?
a) cow's ingestion capacity is less and not covers animal requirements
b) milk fat content is higher
c) milk production has a tendency to decrease
d) milk protein content is high
e) requirements of cows have a tendency to decrease

74. High yielding dairy cows require special conditions of feeding, due to more intense physiological processes. Which of the following is one of them?
a) using the same feeds in the period preceding calving and after calving
b) using in rations of the same amounts of concentrates throughout entire lactation
c) using in rations of poorer quality volume feeds
d) using only concentrate feeds in rations

e) using only volume feeds in rations

75. After three weeks age calves must be fed with solid feeds, concentrates and hays traditionally. What is their administration mode?
a) both *ad libitum* (how much they want to eat)
b) concentrates *ad libitum* and hays restricted
c) both restricted
d) concentrates restricted and hays *ad libitum*
e) in the ration structure 20% concentrates and 80% hays

76. A basic principle of feeding suckling calves is to grow the amount of milk delivered until the age of three weeks. What is the maximum quantity?
a) this aspect is not important
b) 5 kg whole milk
c) 3 kg whole milk
d) equivalent of 0.5 kg powder milk replacer
e) 8 kg whole milk (or 1 kg of powder milk replacer)

77. Feeding dairy heifers must answer two main objectives: getting bigger weights and allow development of the mammary gland. How can both goals be achieved?
a) only by obtaining low weight gains around first calving
b) by growth modulating from weaning to first calving
c) only by using in rations of volume feeds
d) by forcing continuously growth
e) by getting smaller weight gains from weaning to 6 months

78. Calves "*white meat*" is obtained from a proper feeding mode. What is this?
a) with whole milk and hays
b) don't matter feeds sources
c) only with whole milk or milk replacers
d) with whole milk and concentrates
e) with milk replacers and silages

79. In the case of milking ewes, energy and protein requirement to produce one kg of milk is different, in the sense that it increases as the lactation progresses. Why?
a) because decreases maintenance requirement
b) because milk production has a tendency to increase
c) because decreases the milk content in lactose
d) because increases the mobilization rate of the body reserves
e) because the composition of milk changes

80. In intensive system of growing lambs, to achieve high weight gains involves using of large quantities of concentrates in rations, but not excessive. What is the reason?
a) are more expensive
b) decreases walls ruminal motility and internal organs are affected (kidneys for example)
c) have a lower degree of consumability
d) affects fertility
e) decreases body content in protein

81. Locomotion, movement involves increasing requirements of working horses. For which of the following nutrients the increase is most obvious?

a) for vitamins
b) for minerals
c) for energy
d) for amino acids
e) for protein

82. From the age of one month it is recommends to use and dry feeds for youth horses, represented particularly by concentrates mixtures (compound feeds) and hays. Why concentrates are not used *ad libitum* (to appetite)?
a) produce abundant salivation
b) too high protein content
c) too high mineral content
d) to avoid high growth rates and certain skeletal abnormalities
e) low degree of consumability

83. Pigs, depending on the category they belong to, have different feeding modalities. Which of the following categories applies restricted feeding?
a) pregnant sows
b) lactating sows
c) fattening pigs with weight gains as high as possible
d) piglets and lactating sows
e) piglets

84. Pregnant sows may receive compound feeds (CoF) more diluted in terms of energy, toward 2800 kcal ME/kg CoF. What are the benefits?
a) increasing weight of sows at birth
b) increasing number of piglets at birth
c) increasing weight of piglets at birth
d) stimulates intestinal peristalsis and provides a better feeling of satiety
e) no advantage

85. In the extensively systems, together with concentrates feeds, lactating sows receive in rations and volume feeds. What should be maximum share of volume feeds?
a) only 10%
b) one third of the rations structure
c) 100%
d) is not specified
e) two-thirds of the rations structure

86. In the structure of compound feeds for monogastric animals (pigs, poultry...) what is the share of the vitamin-mineral premix?
a) 5-6%
b) 0.5-1%
c) depends on the share of the other components
d) is not specified
e) 2-3%

87. Prestarter compound feed (CoF) for piglets is characterized by high levels of energy and protein parameters. Who are these?
a) 3000 kcal ME/kg CoF and 14-15% CP
b) 3500 kcal ME/kg CoF and 12-13% CP
c) 3800 kcal ME/kg CoF and 10-11% CP

d) 3100 kcal ME/kg CoF and 16-17% CP
e) 3300 kcal ME/kg CoF and 21-22% CP

88. Most often, in the industrial complexes of fattening pigs, compound feeds (CoF) are administered in dry form. However, they can be administered in moist (wetted) form. What are the benefits of the latter?
a) favor the storage of fat in the body
b) specific consumption (kg CoF/kg weight gain) increases
c) higher growth rate and better quality of the carcasses
d) compound feeds are more easily distributed to animals
e) favor the storage of minerals in the body

89. Which of the following groups holds the highest share in the structure of compound feeds?
a) animal protein concentrates
b) energy concentrates (cereals)
c) mineral salts
d) protein concentrates
e) vitamin-mineral premix

90. Eggs for human consumption are produced by two types of hens: Leghorn type and Rhode Island type. What are the main differences between the two types?
a) body weight and egg weight are smaller in Leghorn type
b) Leghorn type digests better concentrates feed
c) Leghorn type is more susceptible to nutritional deficiencies
d) Rhode Island type has a lower feed conversion ratio
e) there are no differences between the two types

91. In the structure of compound feeds for laying hens the share of minerals is higher. What is this?
a) 2-3%
b) 6-8%
c) 1-2%
d) 3-4%
e) 0.5-1%

92. To obtain "colored" skin of carcass in poultry, with shades of orange, are used some feeds, like corn gluten meal, alfalfa meal, vegetable extracts. How can this be explained?
a) such sources contain polyunsaturated fatty acids
b) such sources interacts with the metabolism of vitamins
c) such sources contain xanthophylls
d) such sources contain high levels of amino acids
e) such sources interacts with the metabolism of minerals

93. Chicken broiler and turkey broiler can be fed on four stages, with four types of compound feeds (CoF), prestarter, starter, grower și finisher. What is the main difference regarding the level of nutritional parameters of prestarter CoF?
a) higher mineral parameters for chicken broiler
b) lower protein parameter (CP) for turkey broiler
c) lower vitamin parameters for turkey broiler
d) higher protein parameter (CP) for turkey broiler
e) higher dry matter for chicken broiler

94. Which of the following species of animals can be fed with rations composed exclusively by concentrates feeds?
a) cattle and sheep
b) cattle and horses
c) sheep and pigs
d) horses and sheep
e) pigs and poultry

95. For laying hens compound feeds are administered *ad libitum*. However, what is the anticipated daily consumption?
a) 80-85 g for both types of laying hens
b) 110-120 g for Leghorn hens' type and 120-130 g for Rhode-Island hens' type
c) 200-220 g for Leghorn hens' type and 180-200 g for Rhode-Island hens' type
d) 150-160 g both types of laying hens
e) consumption cannot be anticipated

96. Meat is considered a basic food for dogs and especially for cats. However, meat cannot be introduced alone in diets. Why?
a) protein contained is poorly digested
b) too high content in minerals
c) determines appearance of diarrhea and decreased appetite
d) too low content in vitamins
e) overfeeding occurs

97. Legumes and fruits have a low degree of consumability in dogs and cats. However are included in their household rations. Why?
a) for high protein value
b) because they do not cause allergies
c) because are mineral complements
d) to regulate and facilitate digestive transit
e) because are imperishable

98. Why "gourmet canned food" is recommended as supplement for dogs and cats?
a) contain only one type of meat
b) being of very good quality, creates the risk that animals not consuming other foods
c) low energy value
d) it deteriorates slightly
e) low vitamin content

99. One specific issue in horses is the phenomenon of feeds stratification in the stomach. What does this fact imply?
a) *ad libitum* administration of all feeds
b) administration of feeds before effort
c) watering and administration of roughages to be carried out before administration of concentrates
d) administration of concentrates in the morning
e) watering to be carried out after administration of concentrates

100. Feeding level is a concept used to designate the amount of feeds consumed by animals. In what system is practiced low and discontinuous feeding level?

a) in fattening for "white meat" of calves
b) in semi-intensive and extensive systems of fattening cattle
c) in fattening young cattle based on barley grain
d) in classical fattening cattle
e) in intensive system of fattening cattle