

B. V. Sc. & A.H. (Second Professional) Examination – 2023

Animal Nutrition Paper –II

(MSVE 2016)

To be filled by the candidate:

Candidate's Roll Number:

In figure

In words

Candidate's Enrolment Number:

Day and date of examination:

Please see for general instructions overleaf.

Signatures of invigilators verifying the details filled by the candidate

Signature of invigilator 1: 2:

Candidate should not write anything below this line

Marks to be filled by the examiner:

Section A	
Q. No.	Marks
1.	
2.	
3.	
4.	
5.	
Total	

Total Marks obtained:

In figures: In words:

Signature of examiner:

B. V. Sc. & A.H. (Second Professional) Examination – 2023
Animal Nutrition Paper -II

Time: Three Hours

Maximum Marks: 100
Weightage: 20

Unit-3 (Applied Ruminant Nutrition-II)
Unit-4 (Applied Non-Ruminant Nutrition)

Instructions:

- 1) Attempt all questions
- 2) Answer of all questions is to be written in the space provided along with the question in question-booklet.
- 3) Overwriting is not allowed in the objective type question.

Q.1 Fill in the blanks.

(20x0.5 = 10)

- 1.1 The optimum essential and nonessential amino acid (EAA: NEAA) ratio is in poultry.
- 1.2 Storage digestive organ of poultry is
- 1.3 In pseudoruminants is rudimentary.
- 1.4 The first Indian feeding standards for dairy cattle based on value
- 1.5 Soft faeces in rabbit results due to action.
- 1.6 3rd limiting amino acid of poultry is
- 1.7 Maize gluten meal is rich in
- 1.8 Feeding large amount of concentrate before calving for restoration of rumen papillae is known as
- 1.9 Animal model used to study human nutrition due to its resemblance in digestive physiology is
- 1.10 Maintenance energy requirement for rat is Kcal ME/BW kg^{3/4}.
- 1.11 The ducks are more susceptible to toxicity than fowl.
- 1.12 Moisture is % in semi-moist pet food.
- 1.13 The most critical mineral for sheep is
- 1.14 Milk fat production is affected by volatile fatty acid.
- 1.15 Pigeon and doves produces for feeding nestlings
- 1.16 The DMI of meaty goats is % body weight

- 1.17 Olive green discoloration of egg yolk is due to over feeding of
- 1.18 ration is practiced during breeding season in small ruminants .
- 1.19 As per ICAR (2013) the metabolizable protein requirement of ruminants for maintenance is..... g/kgW^{0.75}/d.
- 1.20 Dietary level of crude fibre (%) in rabbits ranges from

Q.2 Choose the most suitable answer and write the number of the correct answer 1 or 2 or 3 or 4 in the space given against each sub question:

(20x0.5 = 10)

- 2.1 As the body weight of pigs increases, the efficiency of utilization of standardized ileal digestible lysine for protein deposition. ()
1. Increases
 2. Decreases
 3. Unchanged
 4. None
- 2.2 The CP requirement (g/day) of 10 months pregnant mares can be calculated by ()
1. 40 x (Mcal DE/day)
 2. 44 x (Mcal DE/day)
 3. 42 x (Mcal DE/day)
 4. 46 x (Mcal DE/day)
- 2.3 Most commonly used diet in laboratory animals is ()
1. Crumbled
 2. Extruded
 3. Pelleted
 4. Liquid
- 2.4 Enlarged heart in chicks and poults may be caused due to deficiency of ()
1. Copper
 2. Selenium
 3. Manganese
 4. Biotin
- 2.5 Egg white injury occurs due to deficiency ()
1. Choline
 2. Folic acid
 3. Biotin
 4. Avidin
- 2.6 As per BIS (2007), the specification of broiler finisher feed is ()
1. 22% CP and 3100 kcal/kg ME
 2. 20% CP and 3100 kcal/kg ME
 3. 22% CP and 3200 kcal/kg ME
 4. 20% CP and 3200 kcal/kg ME
- 2.7 Which of the following is a hindgut fermenter ()
1. Kangaroos
 2. Rhinoceros
 3. Hippopotamus
 4. Water buffaloes

- 2.8 Which of the following feed ingredient contains highest CP and ME ()
1. MOC & Maize
2. Soy-DOC & Molasses
3. Maize Gluten & Oil
4. Fish meal & Oil
- 2.9 Vegetable protein source is rich in Lysine ()
1. Soybean meal
2. Safflower meal
3. Sun flower meal
4. Sesame meal
- 2.10 As per BIS, dicalcium phosphate contains ()
1. 32% Ca and 16 % P
2. 34% Ca and 17 % P
3. 36% Ca and 21 % P
4. 23% Ca and 18% P
- 2.11 Dietary essential vitamin in Guinea pig is ()
1. Vitamin C
2. Vitamin D
3. Vitamin A
4. Vitamin E
- 2.12 As per NDDDB, the minimum UDP (%) in bypass protein feed must be ()
1. 10
2. 20
3. 30
4. 40
- 2.13 The CP % in diet of guinea pig and rat should be _ & _ respectively ()
1. 22 & 24
2. 20 & 26
3. 24 & 22
4. 26 & 20
- 2.14 Wobbly gait in Pigs occur due to deficiency of ()
1. Vitamin B₁₂
2. Vitamin B₅
3. Vitamin B₆
4. Vitamin B₂
- 2.15 Older dogs are generally offered with ()
1. Pediatric ration
2. Maintenance ration
3. Geriatric ration
4. Starter ration
- 2.16 Maximum degradability of urea in rumen is: ()
1. 40%
2. 100%
3. 60%
4. 80%

2.17 Dietary essential vitamin for cat ()

1. Folic acid
2. Niacin
3. Biotin
4. Ascorbic acid

2.18 Excessive feeding of working horses during rest may lead to ()

1. Colic
2. Big-head disease
3. Azoturia
4. Thumps

2.19 In swine soft pork is produced on feeding of ()

1. Groundnut cake
2. Soybean cake
3. Both
4. None

2.20 Cannibalism in poultry may be due to deficiency of ()

1. Salt
2. Fibre
3. Methionine
4. All of above

Q.3 Attempt any ten out of the following twelve questions. Answer of each question should be in 2 to 3 lines. (10x2.0= 20)

3.1 Coprophagy

3.2 Feeding standard

3.3 Phase feeding in poultry

Please write your Roll Number above this line

3.4 Challenge feeding

3.5 Limiting amino acids

3.6 Flushing ration

3.7 Adlibitum

3.8 Steaming Up ration

3.9 Folivores

3.10 Pseudo-ruminants

3.11 Transition period

3.12 Protein bumps

Q.4 Attempt any six out of the following eight questions. Answer of each question should be in 8 to 10 lines. (6 x 6.0 = 36)

4.1 Feeding of orphan foal

Please write your Roll Number above this line

4.2 Bypass protein.

4.3 Thumb rule method

4.4 Creep feeding

4.5 Cats are obligate carnivores. Justify ?

Please write your Roll Number above this line

4.6 Feeding of Hippopotamus

4.7 Comparison of feeding habits of sheep and goats

Q.5 Answer the following question in 1-2 pages (attempt any two).

(2x12.0 = 24)

- 5.1 (a) Describe the feeding of high yielding cows during peri-parturient period. (6.0)
- (b) Briefly discuss the importance of NPN compound in ruminant ration. (6.0)
- 5.2 (a) Describe the feeding of sow from birth to lactation including different physiological life-stages. (6.0)
- (b) Discuss the feeding of geriatric pets and different types of commercial pet food. (6.0)
- 5.3 (a) What are the feed formulation methods? Describe the steps involve in formulation of broiler starter feed. (6.0)
- (b) Describe the factors affecting nutrient requirements of laboratory animals. (6.0)