



ANN-111: Principles of Animal Nutrition and Feed Technology (2+1)



DEFINE THE FOLLOWING

- 1) Provitamin
- 2) Zymogen
- 3) Glycogen
- 4) Micelle
- 5) Metabolic water
- 6) Silo
- 7) TDN
- 8) Crop residue
- 9) Hay
- 10) Tannin
- 11) Bitot spots
- 12) Rickets
- 13) Thumps
- 14) Glycolysis
- 15) Transamination
- 16) Silage
- 17) Starch equivalent
- 18) Metabolisable energy
- 19) Saponin
- 20) Mineral supplements
- 21) Prebiotic
- 22) Koilin
- 23) Gluconeogenesis
- 24) Glycolysis

- 25) Zymogen
- 26) Peat scour
- 27) Antioxidants
- 28) Essential amino acids
- 29) Feed additive
- 30) Nutritional secondary hyperparathyroidism
- 31) Teartness
- 32) Alkali disease
- 33) Mucosal block theory
- 34) Pica
- 35) Parakeratosis
- 36) Exudative diathesis
- 37) Goitrogens
- 38) Alkalosis
- 39) Starch equivalent
- 40) Calorie protein ratio
- 41) Silo
- 42) Haylage
- 43) Straw
- 44) Biological value
- 45) Heat increment
- 46) Antinutritional factor
- 47) Unconventional feed
- 48) Oxidative phosphorylation
- 49) Sugars
- 50) Metalloenzyme
- 51) Rumen degradable protein
- 52) Antioxidants
- 53) Goitre

WRITE SHORT ANSWERS

1. Vitamin A and vision
2. Thumps
3. Pit silo
4. Biological value
5. Metabolisable energy
6. TCA cycle
7. Urea cycle
8. Protein supplements
9. Beta oxidation of fatty acids
10. Glycogen synthesis
11. Protected protein
12. Methanogenesis
13. Haylage
14. Crop residues
15. Write a short note on vitamin A and Vision
16. Write a short note on Calcium homeostasis
17. Explain the Interrelationship between calcium and vitamin D
18. Write about classification of protein with examples
19. Write briefly about the functions and deficiency diseases of vitamin A
20. Metallo enzymes vs. metal activated enzymes
21. Factors affecting iron absorption
22. Role of minerals in wool production
23. Role of minerals in maintenance of osmotic pressure and acid base balance
24. Nutritional anemia
25. Classify feedstuffs with example
26. Partitioning of feed energy
27. Hay making

28. Milling byproducts as livestock feed
29. What are all the advantages of grain processing and list out different grains processing methods?
30. Bound water and metabolic water
31. Plant and animal composition
32. Organic matter and inorganic matter
33. Embden-Meyerhof pathway of glycolysis
34. Digestion of protein in the rumen
35. Beta oxidation of fatty acid

VIII. Write essays

1. Discuss in detail on the general functions of minerals.
2. Classify feed additives and discuss on the advantages and disadvantages in the use of antibiotics as feed additives.
3. Explain the role of B vitamins as co enzymes.
4. What are the precautions that are to be taken while feeding urea to ruminants.
5. Explain the different phases in silage fermentation.
6. Explain urea treatment of paddy straw.
7. Explain how
 - a. Milk fever can be prevented
 - b. Thumps can be prevented
8. Soil-plant- animal interrelationship
9. Write in detail about the digestion of carbohydrates in ruminants and non ruminants.
10. Enlist macro and micro minerals and write in detail about the function and deficiency diseases of calcium and phosphorus
11. Enlist water soluble vitamins and discuss about the functions and deficiency diseases of thiamine, riboflavin, APF and vitamin C
12. Functions and deficiency disorders of copper
13. Role of minerals in the development and densification of bone

14. Mineral – vitamin interrelationship
15. Importance of minerals on reproduction
16. Silage making.
17. Processing of roughages to improve its nutritive value.
18. Direct and indirect calorimetry.
19. Different methods of assessing protein quality of feedstuffs for non-ruminants.
20. a. Energy rich feed ingredients.
 - b. Classify antinutritional factors and discuss in detail about the antinutritional factors which decrease the utilization of protein.