**Ruminant Nutrition Question Bank**

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**Ques.** Enzymes which acts similarly are called as  
(a) Isoenzymes  
(b) Cofactor  
(c) Coenzymes  
(d) All the above  
Ans. (a)

**Ques.** Mental retardation in children suffering from galactosemia can be avoided by  
(a) Giving them more milk  
(b) Giving them milk free diet  
(c) Giving them milk fortified with vitamins  
(d) Giving them more proteinous diet  
Ans. (b)

**Ques.** Certain vitamin *B* acts as  
(a) Enzymes  
(b) Coenzymes  
(c) Digestive enzymes  
(d) Hormones  
Ans. (b)

**Ques.** Which one of the following is most essential for growth and formation of new cells  
(a) Proteins  
(b) Sugar  
(c) Vitamins  
(d) Minerel salts  
Ans. (a)

**Ques.** Excess intake of food calories, specially food with little water, sugar, honey and ghee causes  
(a) Hypercholesterolmia  
(b) Kwashiorkar  
(c) Bleeding disease  
(d) Obesity  
Ans. (d)

**Ques.** When a piece of bread is chewed it tastes sweet because  
(a) The sugar contents are drawn out  
(b) Saliva converts starch into maltose  
(c) It does not taste sweet  
(d) The taste buds are stimulated by chewing  
Ans. (b)

**Ques.** Vitamins, we must consume daily are  
(a) Fat soluble  
(b) Water soluble  
(c) (a) and (b) both  
(d) None of these  
Ans. (b)

**Ques.** Which should not be eaten too much during hot months  
(a) Vitamins  
(b) Fats  
(c) Mineral salts  
(d) Proteins  
Ans. (b)

**Ques.** Balanced diet includes  
(a) Proteins and vitamins  
(b) Carbohydrates, fats and proteins  
(c) Carbohydrates, fats, proteins and vitamins  
(d) Carbohydrates, fats, proteins, minerals, vitamins and water  
Ans. (d)

**Ques.** If a person decides to live exclusively on a diet of milk, eggs, bread, he would suffer from  
(a) Night blindness  
(b**)** Scurvy  
(c) Goitre  
(d) Rickets  
Ans. (b)

**Ques.** To get sufficient carbohydrates one should take  
(a) Meat  
(b) Rice  
(c) Carrots  
(d) Ground nuts  
Ans. (b)

**Ques.** Hernia is a disease where there is  
(a) Descend of intestine into inguinal canal  
(b) Hardening in the muscles  
(c) Weakening of thigh  
(d) Weakening of intestine  
Ans. (a)

**Ques.** One of the following minerals is responsible to regulate your heart beats  
(a) Sulphur  
(b) Sodium  
(c) Potassium  
(d) Iron  
Ans. (b)

**Ques.** Main difference between brown fat and white fat is that the cells of brown fat  
(a) Are  multicoloured  
(b) Have more mitochondria  
(c) Are polygonal in shape  
(d) All the above  
Ans. (b)

**Ques.** Besides having C, H, O which of the following also contains etc.  
(a) Protein  
(b) Fat  
(c) Carbohydrate  
(d) Vitamin  
Ans. (a)

**Ques.** What does the doctor advise to the patients suffering from high blood cholesterol?  
(a) Red mutton with fat layer  
(b) Vegetable and margerin  
(c) Vegetable oil such as ground–nut oil  
(d) Pure deshi ghee or butter  
Ans. (c)

**Ques.** The main use of salt in the diet is to  
(a) Make the food more tasty  
(b) Produce in small amounts the hydrochloric acid required for the digestion of food  
(c) Ease the process of cooking  
(d) Increase the solubility of food particles  
Ans. (b)

**Ques.** Animals consuming only plant materials are referred as  
(a) Herbivores  
(b) Carnivores  
(c) Omnivores  
(d) Insectivores  
Ans. (a)

**Ques.** Milk protein is  
(a) Rennin  
(b) Casein  
(c) Galactose  
(d) Glycine  
Ans. (b)

**Ques.** Enzymes, vitamins and hormones can be classified into a single category of biological chemicals because all of these  
(a) Enhance oxidative metabolism  
(b) Are conjugated proteins  
(c) Are exclusively synthesized in the body of a living organism as at present  
(d) Help in regulating metabolism  
Ans. (d)

**Ques.** The most important food element for growth and repair of tissue is  
(a) Glucose  
(b) Proteins  
(c) Vitamins  
(d) Calcium  
Ans. (b)

**Ques.** Average kilocalorie of energy needed by woman is  
(a) Less than man  
(b) More than man  
(c) Equal to man  
(d) Cannot be predicted  
Ans. (a)

**Ques.** Riboflavin is essential in our diet, as it is required for the synthesis of  
(a) TPP  
(b) COASH  
(c) NAD  
(d) FAD  
Ans. (d)

**Ques.** A doctor advises a person to have more meat, butter, milk, eggs in his diet. The person is  
(a) Suffering from scurvy  
(b) Cannot see in dark  
(c) Suffering from rickets  
(d) Suffering from Kwashiorkor disease  
Ans. (d)

**Ques.** Cow’s milk is slightly yellowish in colour due to the presence of  
(a) Carotene  
(b) Riboflavin  
(c) Xanthophyll  
(d) Xanthophyll and carotene  
Ans. (b)

**Ques.** Starch and cellulose are compounds of many units of  
(a) Amino acids  
(b) Glycerol  
(c) Simple sugars  
(d) Fatty acids  
Ans. (c)

**Ques.** A patient of diabetes mellitus excretes glucose in urine even when he is kept on a carbohydrate free diet. The most likely reason for that is  
(a) Amino acids are catabolised in the liver to form sugar  
(b) Amino acids are discharged in the blood stream from the liver  
(c) Fats are catabolised to form glucose  
(d) None of these  
Ans. (c)

**Ques.** Lactose is composed of  
(a) Glucose + fructose  
(b) Glucose + glucose  
(c) Glucose + galactose  
(d) Fructose + galactose  
Ans. (c)

**Ques.** The fundamental requirement of food is for  
(a) Growth  
(b) Hunger  
(c) Repair  
(d) Metabolism  
Ans. (a)

**Ques.** Which reserve food a starving man first consumes  
(a) Fat  
(b) Protein  
(c) Glycogen  
(d) Vitamin  
Ans. (c)

**Ques.** Beri–beri was discovered by  
(a) Funk  
(b) G.E. Foxan  
(c) Eijkman  
(d) Admiral Takaki  
Ans. (c)

**Ques.** 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  
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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

**Ques.** 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

**Ques.**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.