**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.