

TOPIC : Mineral Nutrition
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1. Percentage of Calcium and phosphorus in bone meal are, respectively
(a) 15% & 20% (b) 15% & 10%
(c) 30% & 15% (d) None of the above
2. Shell grit containspercent of calcium
(a) 9.0 % Ca (b) **38.0 % Ca**
(c) 68.0 % Ca (d) 18.0 % Ca
3. In cattle, symptoms like abnormal appetite and chewing of woods, bones, rags and other foreign materials indicate the deficiency of
(a) Calcium **(b) Phosphorus**
(c) Zinc (d) Copper
4. For positive impact on immune function in cattle the copper requirement is
(a) 10ppm (b) **20ppm**
(c) 30ppm (d) 40ppm
5. Enzootic ataxia is caused due the deficiency of
(a) Fe **(b) Cu**
(c) Mn (d) Zn
6. Enzootic marasmus is caused due the deficiency of
(a) Co (b) Cu
(c) Mn (d) Zn
7. Coast disease is caused due the deficiency of
(a) Co (b) Cu
(c) Mn (d) Zn
8. Which of the following minerals involved in propionic acid metabolism
(a) Co (b) Cu
(c) Mn (d) Zn
9. In which of the following enzyme, Fe is not a structural component
(a) Xanthine oxidase (b) Succinic dehydrogenase
(c) Cytochrome peroxidase **(d) Alcohol dehydrogenase**
10. Anaemia in animals is considered when the blood Hb concentration fall
(a) 10% below normal range (b) **25% below normal range**
(c) 40% below normal range (d) 55% below normal range

11. Cu plays a key role in the utilization of Fe since Cu is found in the enzyme
(a) Xanthine oxidase (b) Succinic dehydrogenase
(c) Alcohol reductase (d) **Ferroxidase**
12. An enzyme, retinaldehyde reductase, which reduces retinaldehyde to retinol, contains
(a) Fe (b) Cu
(c) **Zn** (d) Co
13. Which of the following organ serves as a store house of calcium
(a) **Bone** (b) Liver
(c) Teeth (d) Kidney
14. Milk fever in high yielding animal is due to deficiency of
(a) Calcium (b) Vitamin D
(c) **Both** (d) None
15. Trace minerals known for their toxicity in livestock
(a) **Mo, Se and F** (b) Mn, Cu and Fe
(c) Zn, Co and Ni (d) Cr, Ni and Mn.
16. Calcium, phosphorus andvitamin are interrelated.
(a) **Vitamin D** (b) Vitamin K
(c) Vitamin C (d) Vitamin E
17. Lower level of calcium in the blood stimulates the secretion ofhormone.
(a) **PTH** (b) Calcitonin
(c) Oxytocin (d) Vasopressin
18. The ratio of Ca and P in the diet is more important fortype of animal.
(a) Ruminants (b) **Non ruminants**
(c) Herbivores (d) Equal for all.
19. The condition NSH is developed due to.
(a) **Low level of Ca and high level of P in diet**
(b) Low level of P and high level of Ca in diet
(c) Low level of Ca and high level of Mn in diet
(d) None of the above.
20. Untreated rock phosphate and superphosphate may be harmful because of thePresent.
(a) **Fluorine** (b) Calcium
(c) Phosphorus (d) None of the above
21. What is the normal blood serum magnesium level in a healthy animal.
(a) **2-5 mg per 100 ml blood**
(b) 5-10 mg per 100 ml blood
(c) 9-12 mg per 100 ml blood
(d) 35-45 mg per 100 ml blood

22. Nakuritis is deficiency of
 (a) Mo (b) Zinc
 (c) Calcium (d) **Cobalt**
23. The deficiency of magnesium in lactating cow is termed as.
 (a) **Grass tetany** (b) NSH
 (c) Blind staggers (d) None of the above
24. What is the requirement of sodium and chloride in all farm animals (for each).
 (a) **0.1-0.2 %** (b) 0.50 %
 (c) 1.0 % (d) 5.0 %
25. What is the requirement of potassium in monogastric and ruminant animals respectively.
 (a) **0.2-0.5 % and 0.6-0.8 %** (b) 0.50 % and 0.25 %
 (c) 1.0 % and 3 % (d) 5.0 % and 8 %
26. In UMMB which is used for compactness of block
 (a) Calcium (b) Zinc oxide
 (c) Copper oxide (d) **Bentonite**
27. Sheep may generally suffer from deficiency of which trace elements
 (a) **Copper and cobalt** (b) Copper and sulphate
 (c) Copper and molybdenum (d) Copper and zinc
28. Type of anaemia is occurred due to deficiency of iron in calves
 (a) Microcytic hypochromic (b) Macrocytic normochromic
 (c) **Microcytic normochromic** (d) Normocytic hypochromic
29. Which of the following deficiency contribute to perosis
 (a) Manganese and Choline
 (b) Biotin and Folic acid
 (c) Vitamin B₁, Mn, Choline, Biotin and Vit B₁₀
 (d) **Vitamin B₁₂, Mn, Choline, Biotin and B₁₀.**
30. Which of the following is essential in prevention of perosis in chicks.
 (a). **Choline** (b) Pantothenic acid
 (c) Ascorbic acid (d) All
31. The coenzyme involved in oxidative decarboxylation of pyruvic acid to acetyl CO A is known as
 (a) **Thiamine pyrophosphate** (b) Flavin adenine dinucleotide
 (c) Coenzyme A (d) Pyridoxine phosphate
32. Amount of phosphorus per 100 ml blood (mg) is
 (a) 15-25 (b) **35-45**
 (c) 25-30 (d) 45-50

33. Iodine content of thyroxine is
(a) 45 (b) 55
(c) **65** (d) 75
34. The requirement of selenium (ppm) in ruminants is about
(a) 0.3 (b) 0.2
(c) 0.4 (d) **0.1**
35. Thumps is a condition commonly noticed in the deficiency of iron in
(a) Calves (b) Lambs
(c) **Piglets** (d) Chicks
36. Uric acid formation require :
(a) Manganese (b) Zinc
(c) Copper (d) **Molybdenum**
37. Colostrum is an excellent source of
(a) **Vitamin E** (b) Thiamine
(c) Riboflavin (d) Vitamin K
38. The pesticide causes severe liver damage in animal
(a) **BHC** (b) Trichlor-phane
(c) Permethrin (d) DDT
39. In livestock, normally trace elements are required at less than
(a) **100 mg/kg diet** (b) 200 mg/kg diet
(c) 300 mg/kg diet (d) 400 mg/kg diet
40. As per BIS specifications, Type I mineral mixture contains
(a) 18 % Ca (b) 9 % phosphorus
(c) **Both a and b** (d) None
41. Bioavailability of minerals is high from
(a) Inorganic sources (b) **Organic source**
(c) Both a & b (d) None
42. Deficiency of zinc deficiency in pigs causes:
a. Pica b. Mulberry heart disease
c. Parakeratosis d. Blind staggers
43. Alkali disease is caused by:
a. Feeding alkali treated feed b. Excess intake of Cu
c. Deficiency of Arsenic **d. Toxicity of selenium**
44. Steely wool condition in sheep is due to deficiency of:

a. Zinc **b. Copper** c. Molybdenum d. Cobalt

45. Acid and base balance of the body is regulated by

a. Potassium b. Sodium c. Chlorine **d. All**

46. Excessive salt intake by the animals increased the requirement of –

a. Minerals b. Protein c. Fat **d. Water**

47. The potent natural antioxidant vitamin is:

a. Vitamin A **b. Vitamin E** c. Vitamin C d. Vitamin K

48. Ultra trace element is

a. Cobalt b. Iron c. Calcium d. Zinc

49. Classification of minerals into macro and trace on the basis of

a. Their necessity to animal health **b. Their concentration in the animal body**

c. Their nutritive value d. Their availability in nature

50. Deficiency of mineral causes grass tetany in animals:

(a) Potassium (b) Phosphorus
(c) Magnesium (d) Selenium