

1. What are the five essential nutrients for the horse?	Water, energy, protein, vitamins and minerals	14. What does the term digestible crude protein mean?	This estimates the protein content based on the nitrogen content in the feed. This is the actual amount available to the horse for digestion
2. How much water can a horse drink daily?	12 to 20 gallons	15. What is the order of all the parts in the horses digestive system going from head to tail?	Mouth, esophagus, stomach, small intestine, cecum, large colon, small colon, rectum, anus. The cecum, large colon, small colon, and rectum all make up the large intestine.
3. What is a concentrate?	A feed that, by weight, is relatively high in nutrients and low in fiber	16. What is the function of the mouth in the digestive system?	This is where food breakdown first begins. Food is masticated or chewed to reduce the particle size and increase the surface area, preparing it for the digestive process.
4. What percentage of their body weight do horses consume in dry feed each day?	Roughly 2% of their body weight	17. What is the meaning of the term "mastication"?	The chewing and breakdown of food that also produces saliva
5. How much of the horse's diet should be forage?	At least 50%	18. What is the length of the esophagus?	Approximately 4 to 5 feet?
6. To what two things should horses be allowed access all the time?	Fresh, clean water and hay or grass	19. Explain whether horses can vomit and how this process works?	Horses cannot vomit due to a valve at the top of the stomach that prevents food from reentering the esophagus once it has passed on to the stomach. This also prevents the horse from passing gas back up the digestive tract
7. What is meant by "maintenance"?	This means that the feeding regimen is designed to cover the nutritional needs for a horse that is healthy and is not doing any work.	20. How long does it take liquids and dry matter to pass through the stomach?	Liquid can pass through the horse's stomach in about 15 to 30 minutes. Dry matter can take up to 12 hours to pass through the stomach.
8. List three types of horses that have a higher nutritional requirement than maintenance.	Mares that are in foal, growing foals, horses under a regular work schedule, older horses that cannot properly break down the necessary nutrients	21. What is the function of the small intestine?	It absorbs protein, vitamins, minerals, and energy with the help of digestive enzymes
9. What is the general "rule of thumb" for determining how much to feed a horse?	A horse should be fed approximately 2.0 pounds of total food per day for every 100 pounds of body weight	22. What is another term for the large intestine?	Hind gut
10. What is the recommended food intake per day for a maintenance horse?	1.6 to 2.0 pounds per 100 pounds of body weight, or 1.6 to 2.0 % of total body weight	23. What happens in the cecum?	Bacteria, protozoa, and fungi release enzymes that break down complicated fibrous carbohydrates (mostly plant fibers). This is the major site for fiber digestion of forage.
11. What things affect the nutritional requirements of a horse?	The type of work the horse does; amount or type of production (fitting/fattening, reproduction, and/or lactation); and phase of growth	24. What is the human's physiological equivalent to the cecum?	The appendix
12. What are the five major parts of the equine digestive, system?	Mouth, esophagus, stomach, small intestine, large intestine		
13. What does the term crude protein mean?	This estimates the nitrogen content of the feed, although it does not include the total amount of nitrogen available in the feed through other sources		

25. What is the main function of the large colon?	Water absorption
26. At what point in the digestive tract do fecal balls start to form?	At the end of the large colon, water is removed and begins the process of forming fecal balls.
27. What is the length of the rectum in feet?	Approximately 1 foot
28. Name three energy-producing nutrients that are fed to the horse.	Carbohydrates, sugar, starch, fiber or cellulose, fat
29. How much of a horse's total body weight is made up of water?	Approximately 65 to 75%
30. What is protein made up of?	Amino acids
31. Give three symptoms that can occur if a horse has a deficiency of protein in their diet.	Decreased growth rates, decreased appetite, body tissue loss, muscle loss, slow hoof growth, poor hair coat, lack of energy
32. What are the fat-soluble vitamins?	A, D, E, K
33. What is Vitamin A important for?	It aids vision, allows for healthy skin, involved in reproduction, and as an antioxidant to prevent damaged cells
34. What is Vitamin D important for?	It is needed for mineral utilization and bone formation, also involved in the absorption and use of calcium and phosphorous
35. Which vitamin is known as the "sunshine vitamin"?	Vitamin D
36. What are the b-complex vitamins?	B1 (thiamin), B2 (riboflavin), B6 (pyroxidine), B12 (cobalamin), biotin, folic acid, niacin, and pantothenic acid
37. Name 3 of the 7 macro-minerals required by the horse.	Calcium, chloride, magnesium, phosphorous, potassium, sodium, and sulfur
38. Name 3 of the 7 micro-minerals required by the horse.	Cobalt, copper, iodine, iron, manganese, selenium, and zinc