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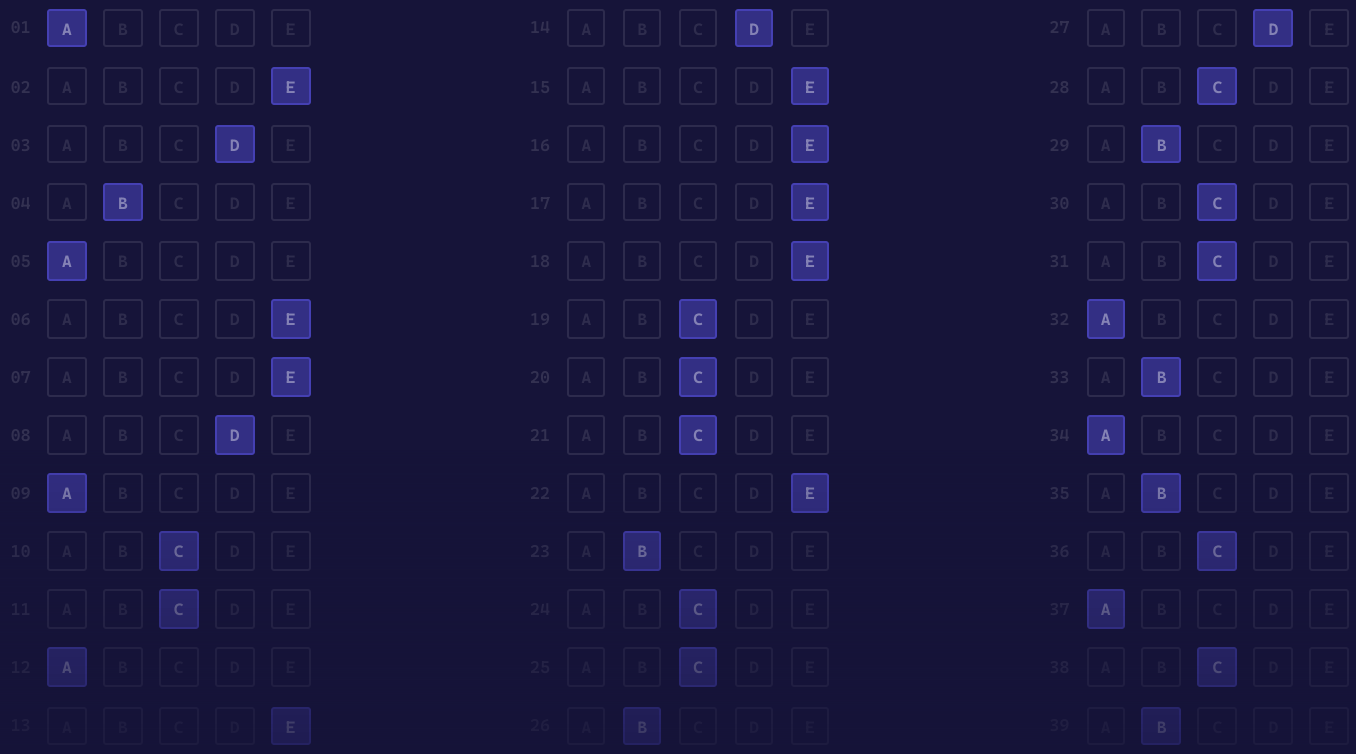

PRACTICE QUESTIONS

Nutrition Specialty Examination American College of Veterinary Internal Medicine (ACVIM)

NUCCM

Nutrition Specialty Exam, Clinical Cases

EDITION	QUESTIONS	ISSUED
Demo	9	September 4, 2026

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Before you begin

What this is

9 practice questions for Nutrition Specialty Examination American College of Veterinary Internal Medicine (ACVIM) `NUCCM`, each with its answer key and an explanation. Answer a question before you read its key — the explanation is worth more once you have committed.

If something looks wrong

Send us three things and we will check it:

- the exam code, `NUCCM`
- the question number
- the email address on your order

Write to **support@mometrix.net**. We reply within one business day.

Licence

QUESTION 1 SINGLE CHOICE

A 7-year-old castrated male domestic shorthair cat is presented with a 6-month history of progressive weight loss despite a good appetite. Physical examination reveals mild muscle wasting and a body condition score (BCS) of 3/9. Serum biochemistry shows elevated total T4, mildly increased ALT, and increased serum cobalamin. Which nutritional intervention is most appropriate as the primary dietary modification?

A A high-carbohydrate, calorie-dense diet to address weight loss

B A highly digestible, protein- and calorie-dense diet with controlled iodine intake

C A renal diet with restricted protein and phosphorus

D A high-fiber, reduced-calorie weight-management diet

ANSWER B

WHY The clinical picture is consistent with hyperthyroidism (elevated total T4, weight loss with good appetite, mild ALT elevation). The cornerstone of nutritional management is a highly digestible, calorie-dense diet to reverse the catabolic state, along with controlled iodine intake, which can help modulate thyroid hormone production. High-carbohydrate diets are inappropriate for cats (obligate carnivores). A renal diet is not indicated without evidence of renal disease. A high-fiber weight-loss diet is contraindicated because the cat is already underweight.

QUESTION 2 SINGLE CHOICE

A 4-year-old Standard Poodle is hospitalized 48 hours after surgical repair of a severe gastric dilatation-volvulus (GDV). The dog is anorexic and has been nothing per os (NPO) since admission. Serum albumin is 1.9 g/dL (reference 2.6–4.0 g/dL). Which route of nutritional support is most appropriate to initiate first?

A Total parenteral nutrition (TPN) via a central venous catheter

B Total parenteral nutrition (TPN) via a peripheral catheter

C Enteral nutrition via a nasoesophageal tube

D Enteral nutrition via a gastrostomy tube placed at the time of GDV surgery

ANSWER C

WHY Enteral nutrition is preferred over parenteral nutrition whenever the gastrointestinal tract is functional, because it maintains gut mucosal integrity, reduces infectious and metabolic complications, and is less costly. A nasoesophageal tube can be placed rapidly without anesthesia and is appropriate as a short-term bridge until appetite returns. TPN carries higher risks (sepsis, hyperglycemia, refeeding syndrome) and is reserved for patients with non-functional GI tracts. Gastrostomy tube placement is appropriate for longer-term support but is not the first-line option here.

QUESTION 3 SINGLE CHOICE

An 11-year-old spayed female Miniature Schnauzer is diagnosed with early International Renal Interest Society (IRIS) Stage 2 chronic kidney disease (CKD). Serum creatinine is 2.1 mg/dL and SDMA is 18 µg/dL. The dog is currently overweight (BCS 7/9) and mildly azotemic. Which dietary recommendation best addresses both the CKD and the obesity?

A A high-protein weight-loss diet to preserve lean body mass during caloric restriction

B A moderate-protein, phosphorus-restricted renal diet formulated for weight loss

C A low-protein, low-phosphorus maintenance renal diet fed at maintenance calories

D A high-fat, low-carbohydrate ketogenic diet

ANSWER B

WHY In IRIS Stage 2 CKD, dietary modification with restricted phosphorus, moderately restricted high-quality protein, and controlled sodium is the cornerstone of management. Because this dog is also overweight, a formulation designed to combine renal nutrient profile with reduced caloric density (a renal weight-loss diet) is the best single intervention. High-protein diets exacerbate azotemia and are contraindicated. A standard maintenance renal diet fed at maintenance calories will not address obesity. Ketogenic diets have not been validated for canine CKD and obesity combined.

QUESTION 4 SINGLE CHOICE

A 5-year-old mixed-breed dog weighing 12 kg is presented after 14 days of near-complete anorexia following a severe viral enteritis. On presentation the dog has a BCS of 1/9, severe muscle wasting, and is hypoglycemic. Aggressive refeeding is initiated. Which electrolyte disturbance is most likely to develop within the first 72 hours of refeeding?

A Hyperkalemia secondary to acidosis

B Hypophosphatemia secondary to intracellular shift during anabolism

C Hypercalcemia secondary to immobilization

D Hypermagnesemia secondary to renal retention

ANSWER B

WHY Refeeding syndrome is characterized by severe hypophosphatemia caused by intracellular shift of phosphate during insulin-mediated anabolic metabolism (glycolysis, ATP synthesis). Hypokalemia and hypomagnesemia also commonly occur. To minimize risk, caloric delivery should be initiated at a fraction (typically 25–33%) of the calculated resting energy requirement and gradually increased over 3–5 days, with daily electrolyte monitoring.

QUESTION 5 SINGLE CHOICE

A 9-year-old neutered male Cocker Spaniel is diagnosed with lymphocytic-plasmacytic enteritis with concurrent folate deficiency but normal serum cobalamin. After initiating an elimination/hypoallergenic diet and oral folate supplementation, the dog's diarrhea improves. What additional dietary consideration is most important for long-term management of this patient?

A Long-term supplementation with cobalamin regardless of serum concentration

B Periodic reassessment of serum cobalamin despite the initial normal result

C Switching to a high-fiber, low-fat maintenance diet

D Adding a raw-meat–based diet to improve digestibility

ANSWER B

WHY Cobalamin (B12) deficiency is common in dogs with chronic enteropathies and distal small intestinal disease. Serum cobalamin should be monitored periodically because deficiency can develop over time and can independently cause or perpetuate GI signs, mucosal injury, and poor response to therapy. Routine supplementation is not warranted when cobalamin is normal, but serial monitoring is essential. High-fiber low-fat diets do not address the underlying protein-losing/inflammatory enteropathy, and raw-meat–based diets carry pathogen-exposure risks and are not recommended for immunocompromised patients.

QUESTION 6 SINGLE CHOICE

A 12-year-old castrated male Cavalier King Charles Spaniel is diagnosed with myxomatous mitral valve disease (MMVD), ACVIM Stage C, on furosemide, pimobendan, and an angiotensin-converting enzyme inhibitor. The owner asks about a 'cardiac diet.' Which nutrient modification has the strongest evidence base for this stage of disease?

A Severe restriction of dietary protein to reduce renal workload

B Severe sodium restriction as the primary intervention

C Moderate sodium restriction combined with adequate high-quality protein and supplemental omega-3 fatty acids (EPA/DHA)

D High-potassium diet without other modifications

ANSWER C

WHY For ACVIM Stage C MMVD, current evidence supports a combination of moderate dietary sodium restriction (rather than extreme restriction, which can activate the renin–angiotensin–aldosterone system), adequate high-quality protein to preserve lean body mass, and supplementation with long-chain omega-3 fatty acids (EPA/DHA) at approximately 40 mg/kg EPA and 25 mg/kg DHA, which has been shown to reduce cytokine and arrhythmic burden and improve appetite/muscle mass. Severe protein restriction is not indicated. Extreme sodium restriction alone is inferior to a comprehensive cardiac diet, and indiscriminate potassium supplementation can be dangerous in patients receiving ACE inhibitors.

QUESTION 7 SINGLE CHOICE

A 6-year-old spayed female Labrador Retriever weighs 42 kg with a BCS of 9/9 and a body fat estimated at 45%. The owner has failed multiple weight-loss attempts using over-the-counter 'light' diets. A formal weight-loss plan is designed targeting approximately 1–2% body weight loss per week. What initial caloric target is most appropriate for this patient?

A **Resting energy requirement (RER) of approximately 1,050 kcal/day, which approximates 60% of current intake**

B Maintenance energy requirement (MER) at 132 × ideal body weight^0.75

C 120 kcal per kilogram of current body weight per day

D Two-thirds of the current intake of an adult maintenance diet

ANSWER **A**

WHY For obese dogs, the recommended initial caloric intake is the resting energy requirement calculated as 70 × (ideal body weight in kg)^0.75, which for an ideal weight of approximately 33 kg is roughly 1,000–1,050 kcal/day. This typically represents about 60–70% of the caloric intake needed to maintain current weight and produces a safe 1–2% weekly weight loss. Using MER (132 × BW^0.75) is appropriate for non-obese maintenance. Using current body weight in calculations over-estimates caloric need and perpetuates obesity. Arbitrary percentage reductions of the current intake are unreliable because current intake is often underreported.

QUESTION 8 SINGLE CHOICE

An 8-year-old Golden Retriever is undergoing chemotherapy for appendicular osteosarcoma. The dog has lost approximately 8% of its body weight over 6 weeks, has a poor appetite, and exhibits early sarcopenia. Which dietary strategy is most appropriate to address cancer-associated cachexia?

A A high-carbohydrate, low-fat diet to minimize metabolic demand on the tumor

B **A calorie-dense diet high in fat (particularly omega-3 fatty acids) and high-quality protein, with reduced simple carbohydrates**

C A high-fiber, low-calorie diet to slow tumor growth

D A standard adult maintenance diet fed free choice

ANSWER **B**

WHY Cancer cachexia is driven by metabolic alterations including increased lipolysis and protein catabolism, with tumor preference for glucose. Diets for dogs with cancer should be calorie-dense, relatively high in fat (with marine-derived omega-3 fatty acids EPA and DHA at anti-inflammatory doses), high in high-quality protein to spare lean body mass, and lower in simple carbohydrates. High-fiber, low-calorie diets worsen weight loss and sarcopenia. Free-choice feeding of a maintenance diet does not address the altered metabolic state.

QUESTION 9 MULTIPLE CHOICE

A 4-year-old French Bulldog presents with chronic, non-seasonal pruritus, recurrent otitis externa, and intermittent soft stools. An elimination diet trial is recommended. Which of the following are essential components of a properly conducted elimination diet trial? (Choose two.)

A Feeding only a novel or hydrolyzed protein diet for 8–12 weeks with no treats, flavored medications, or table food

B Concurrent administration of oral corticosteroids to control pruritus during the trial

C Feeding a rotation of several different protein sources to identify which one the patient reacts to

D Avoiding access to other animals' food and preventing scavenging during walks

ANSWER B · D

WHY A valid elimination diet trial requires strict adherence to the test diet only, with exclusion of all treats, table food, and flavored medications/supplements, typically for 8–12 weeks. Concurrent corticosteroids can suppress pruritic responses and confound interpretation, so systemic anti-presteroidoids should be avoided (or held at anti-inflammatory doses only with owner understanding of limitations). Dietary rotation during the trial is contraindicated because it prevents identification of the offending antigen. Preventing access to other foods (including other pets' food and scavenging opportunities) is essential to maintain the trial's integrity.