

# Latest Version: 6.0

## Question: 1

How many gallons of milk is the highest producing cow in this herd giving per day?

Index	Barn Name	S T R	B R D	Calv Date	Prev T. D. Milk	Curr T. D. Milk	Dev Milk C-P	Pre SCC Act	Lot No.	Days in Milk	No Br	C D E	Breed Heat Date	Due Date
1365	1365	1	HO	02/27/22	123.7	150.1	+26	13	4	93				
1361	1361	1	HO	02/27/22	147.7	142.6	-5	13	4	93	1		05/27	03/03
368	368	1	HO	02/12/22	125.5	125.5	+13	19	2	108	1		05/01	02/05
1470	1470	1	HO	02/21/22	114.5	131.3	+16	132	2	99		P		
352	352	1	HO	10/31/21	107.1	127.6	+21	303	2	212	2		02/12	11/19

- A. 9.4 gal/day
- B. 18.8 gal/day
- C. 68.8 gal/day
- D. 34.1 gal/day
- E. 72.0 gal/day

**Answer: B**

Explanation:

Cow identified as number 1365 is the highest producing cow on the day of this milk test. Her current total daily milk (Curr T.D. Milk) is measured in pounds at 150.1 lb/day. One gallon of milk weighs 8 lb; therefore, the conversion is as follows:

$(150.1 \text{ lb/day}) / (8 \text{ lb/gal}) = 18.8 \text{ gal/day}.$

Additional information includes that she is g 3 days in milk and has increased production by 26 pounds since the revious milk test. This is her fourth lactation, and she has not et been serviced,

## Question: 2

For which one of the following conditions would antibiotic therapy be indicated?

- A. Feline lower urinary tract disease
- B. Canine yeast otitis externa
- C. Equine heaves
- D. Bovine listeriosis
- E. Feline distemper

**Answer: D**

Explanation:

Listeriosis is an infection of the brain caused by *Listeria monocytogenes* bacteria that cause an ascending asymmetrical encephalitis. Although listeriosis can affect multiple species, ruminants are the most susceptible.

Treatment success requires aggressive and early administration of either penicillin G procaine or oxytetracycline. The alternative choices do not have a bacterium because a primary etiologic agent and antibiotics should not be administered empirically.

### Question: 3

A female cockatiel presents for lethargy. She is sitting at the bottom of the cage and shows a distended abdomen. Upon examination, the veterinarian can palpate a firm object near the cloaca. What is the most likely differential diagnosis?

- A. Yolk peritonitis
- B. Egg binding
- C. Foreign body
- D. Neoplasia
- E. Constipation

**Answer: B**

Explanation:

Egg binding (i.e. dystocia) is a common cause of illness in captive female birds including chickens, budgies, cockatiels, and lovebirds. The cause of egg binding is multifactorial; it can be seen with hypovitaminosis A, obesity, first-time egg layers, and genetic predisposition. The most common cause in production birds, such as chickens, is hypocalcemia. Diagnosis may be made with physical examination or via imaging. The affected bird should be stabilized with fluid and thermal support before extraction is attempted. If medical management is unsuccessful, surgery would be required to remove the egg.

### Question: 4

Which one of the following is NOT routinely evaluated when a veterinarian is performing a welfare audit of a production animal system?

- A. Temperature regulations
- B. Body condition
- C. Identification of normal species behaviors
- D. Profitability analysis
- E. Ventilation

**Answer: D**

Explanation:

Welfare audits use science-based measures to assess the adequacy of the animals' environment to ensure that it is compliant with the five freedoms of animal welfare. Each species has specific parameters to conform with, such as specific temperature ranges for chicks in a hatchery or appropriate ventilation systems for pork producers. The auditor should be familiar with the standard of care and specification for the species being evaluated. An operations profitability analysis is not part of the welfare audit; however, there is a direct relationship between the state of the animals' environment and the system's production ability.

## Question: 5

Which one of the following steps in data review allows for the identification of errors that can skew the final results of an epidemiologic investigation?

- A. Data collection
- B. Data entry
- C. Data cleaning
- D. Data analysis
- E. Data reporting

**Answer: C**

Explanation:

Data cleaning is the term used to describe the process of identifying common errors that occur in the data collection process that could ultimately invalidate the final data reporting. Duplicate data points, missing/blank data fields, and outliers are examples of the types of errors that can be identified during data cleaning. When errors are corrected, it is important to document the correction in the event that it would need to be reversed later or omitted from analysis completely.

## Question: 6

A 2-year-old male German shepherd is evaluated for marked weight loss, listlessness, and frequent, voluminous stools that have developed over the past few months. The owner states that the patient is eating more than usual, even his own stools. Physical examination yields a body condition score of 2/5, poor hair coat, dull mentation, and generalized ill thrift. Steatorrhea is noted when the patient defecates on the floor. Which of the following tests is most appropriate to confirm the presumptive diagnosis?

- A. Intestinal biopsy
- B. Glucose curve
- C. Ultrasonography
- D. Trypsin-like immunoreactivity
- E. Fecal flotation

**Answer: D**

Explanation:

Exocrine pancreatic insufficiency (EPI) is the ailment in this case scenario and is seen commonly in young German Shepherds. It occurs when the exocrine pancreas produces inadequate amounts of enzymes for digestion, leading to maldigestion and malabsorption of the intestinal contents. The test of choice for EPI is trypsin-like immunoreactivity, which measures specific pancreatic enzymes (trypsin) in the bloodstream. In EPI these enzymes are not being produced in sufficient amounts, so the TLI results are profoundly decreased. Serum TLI <2.5 gg/L along with clinical signs of EPI is considered diagnostic.

## Question: 7

The majority of toxin exposures for domestic animals, such as ruminants, occurs through what route?

- A. Intentional exposure through ingestion of contaminated feed
- B. Accidental ingestion through nondiscriminate ingestion of environmental toxins
- C. Accidental ingestion through ingestion of contaminated feed
- D. Intentional administration of toxic substances parenterally
- E. Accidental Administration of toxic substances parenterally

**Answer: B**

Explanation:

Because of the nondiscriminate nature of domestic animals such as cattle, sheep, and goats, ingestion of toxins is most commonly accidental because of their presence in the environment. This includes lead-based paint found on old, painted boards used to repair a fence. ingestion of moldy feed that was missed by the producer. or even metal shards accidentally mixed with feed. In cases of toxicity, multiple animals are most often affected and the veterinarian must evaluate the environment to determine the route of exposure.

## Question: 8

Dr. K is an equine practitioner in rural Indian

a. He recently treated a client's horse for acute colic as an after-hours emergency, compounded by multiple comorbidities. The veterinarian recommended transfer to an equine specialty center for surgical evaluation, which the owner declined and requested medical management. The next day, the client posted multiple reviews and negative comments regarding Dr. K's care of the horse on various social media platforms. The posts accused Dr. K of not properly treating the horse and complained about the prices of the services. Initially, Dr. K ignored the posts, but they became increasingly aggressive. What should Dr. K do next?

- A. Reply to the comments with the exact details of the case
- B. File a harassment complaint with local law enforcement
- C. Unfollow the client so as to avoid seeing posts
- D. Fire the individual as a client
- E. Void the bill for the client

**Answer: B**

Explanation:

Cyberbullying is a newer outlet for clients and pet owners to attack veterinarians. There are multiple recommendations regarding the best way to handle cyberbullying on social media, but in the event that the posts become threatening. the individual being targeted should file a formal complaint of harassment with local law enforcement. Legislature surrounding cyberbullying is muddy and absent because many individuals defend their position as their right to free speech. Revealing the details of a patient may violate a state's practice act, as is firing a client during the treatment of a patient. The veterinarian may not have the power to void a bill. and doing so is controversial (i.e., it is rewarding the client's bad behavior). The American

Veterinary Medical Association (AVMA) provides a cyberbullying toolkit for members to navigate the nuances of social media.

### Question: 9

Which of the following is the most appropriate treatment for poultry coccidiosis?

- A. Tetracycline
- B. Amprolium
- C. Nystatin
- D. Penicillin
- E. Neomycin

**Answer: B**

Explanation:

Amprolium is an effective drug for coccidial infections. The drug interferes with thiamine utilization and sexual reproduction of the protozoan parasite, thereby retarding the parasite's development.

### Question: 10

A veterinarian is preparing to negotiate a wage increase. They have researched the demographics of the practice area, the industry standard, and their individual production. The veterinarian enjoys the practice environment and the clientele. What additional strategy could be used during negotiations?

- A. Stay modest regarding accomplishments to avoid appearing boastful.
- B. Present resignation as an alternative to a wage increase.
- C. If the raise is declined, request to revisit in 3—6 months.
- D. Time the request to coincide with the annual review.
- E. Use the wages of coworkers to support the argument for a raise.

**Answer: C**

Explanation:

Wage negotiations should be conducted in a professional manner; do not present ultimatums or unprofessional statements such as revealing a coworker's earnings in order to avoid creating a hostile work environment. The individual making the request should be informed regarding their own accomplishments and should be prepared to clearly and concisely present the reasons why higher pay is deserved. If the other aspects of the position are enjoyable, the individual should make a plan to revisit the wage increase request in a set period of time, with 3—6 months being the average. This will give the employer time to reassess their position. The employee should be aware of how far he or she is willing to compromise before seeking an alternative employer.

## Question: 11

Lice, though nuisances, often do not cause clinical signs in cattle. If they do, it may be mild pruritus, licking themselves, or rubbing on inanimate objects. If sucking lice are present in significant numbers, anemia may result and subsequent weakness. Which of the following represents the chewing louse of cattle?

- A. *Linognathus vituli*
- B. *Hematopinus quadripertusus*
- C. *Bovicola (Damalinia) bovis*
- D. *Hematopinus eurysternus*

**Answer: C**

Explanation:

There are three sucking lice species in cattle, *Linognathus vituli*, *Hematopinus quadripertusus*, *Hematopinus eurysternus*, and one chewing louse, *Bovicola (Damalinia) bovis*.

Lice are host specific and cannot survive off the host animal for more than a few days. They require certain specific environmental factors to thrive. Some species may survive only ten to 15 days, while the chewing louse can live up to ten weeks. Transmission is via close contact.

Animals often show no signs, but mild dermatitis may manifest during a moderate infestation. From there, heavier infestations may lead to pruritus, licking, and rubbing. Sucking lice with severe infestations can cause anemias. Heavy infestations may occur in the face of underlying disease states such as chronic disease or malnutrition. When animals are debilitated, they often fail to groom themselves. Thus, this may promote the retention of lice.

Economic losses from the hide may occur, but usually, the condition causes minimal to no financial consequences. Control is via permethrins, macrocyclic lactones, or potentially essential oils (chewing lice).

## Question: 12

Viral typing to determine outbreak serotypes for Infectious Bronchitis Virus (IBV) in poultry helps differentiate between wild infections and vaccination strains. What method to identify IBV serotypes is highly accurate but time-consuming and costly?

- A. Molecular detection of the viral spike (S1) gene
- B. Immunohistochemistry
- C. Virus neutralization tests
- D. PCR

**Answer: A**

Explanation:

IBV is a worldwide avian coronaviral disease, with chickens as the primary host, though the disease has been seen in peafowl and pheasants. It is transmitted via inhalation and direct contact, and morbidity in birds is usually 100%. Various strains lead to different clinical pictures, including decreased egg yields, poor egg quality, upper respiratory tract disease, and acute nephritis. Respiratory lesions are not granulomatous but may contain

serous, caseous, or catarrhal exudates when advanced and are foamy within the air sacs, then develop cloudiness as the disease progresses.

The preferred diagnostic test molecularly detects the viral spike (S1) gene. Once the S1 gene is identified, a lab can further perform sequence analysis to define the serotype. This is time-consuming and costly.

Less expensive methods of identification, without identifying the serovar-specific strain, include Reverse Transcriptase Polymerase Chain Reaction (RT-PCR), assessment of rising antibody titers against IBV preclinical to convalescent sera, or virus isolation in embryonated eggs.

If you are collecting samples from a large flock, be sure to collect samples from animals with and without clinical signs. Signs generally develop three to five days post-infection, when peak titer is no longer evident.

### Question: 13

A sheep and goat farmer asks you to review their farming practices because they see too much coccidiosis on the farm. You discuss management practices with the client and mention that all of the following will be helpful, except:

- A. Elevated feed and water troughs
- B. High humidity
- C. Proper cleaning with ammonia or methylbromide
- D. Sunlight exposure

**Answer: B**

Explanation:

Coccidial infections in many ruminants are self-limiting and may remain asymptomatic. Clinical signs may develop, if proper husbandry and management practices aren't followed secondary to high oocyst environmental contamination. Kids seem to be highly susceptible, and, as a result, this may lead to chronic diarrhea. The causative genus in ruminants is *Eimeria* sp. *Eimeria* infections in sheep cause significant economic losses. When clinical signs arise, we can see diarrhea, dehydration, weight loss, wool breaking, anemias, appetite changes, and even death in the young. Those at highest risk are lambs in the one-to-six-month age range, those kept in lambing pens, those raised on feedlots, or those with intensive grazing locales. Risks increase with crowding, stress, weather changes, shipping, and contamination from other animals. Goats show similar signs, though they can also experience constipation and death without ever developing diarrhea.

Measures to reduce exposure and contamination are paramount. The following measures can help control coccidiosis on farms:

- Decrease stocking rates: Reduces exposure to and contamination by oocysts
- Properly dispose of manure: Reduces exposure to and contamination by oocysts
- Elevate feed troughs: Reduces exposure to and contamination by oocysts
- Clean water troughs regularly: Reduces exposure to and contamination by oocysts
- Increase sunlight exposure: Kills oocysts
- Lower the humidity: Kills oocysts
- Properly clean and then disinfect with ammonia, methyl bromide, or formaldehyde
- Prevent rotating all juvenile animals through various different stages
- Place animals in age-matched pens, outside enclosures

The goal is to avoid the need for prophylactic coccidiostatic medication to ensure appropriate antimicrobial stewardship practices and minimize animal exposure to various medications.

Note that eradication is generally not feasible, so practicing key management practices and ensuring safe, appropriately timed deworming protocols is key to minimizing economic and animal losses.

### Question: 14

While on a sheep farm with multiple species, you notice a group of sheep without much access to shade. Several of the animals are weak, and some are lying down. One or two even seem to be showing signs of respiratory compromise. You suspect heatstroke.

Why are ruminants at greater risk for heatstroke than other large animal species?

- A. Poor exercise tolerance
- B. Inability to pant
- C. Increased evaporative heat loss ability
- D. Inability to sweat

**Answer: D**

Explanation:

Ruminants, such as sheep and cattle, cannot pant. As a result, they are much less efficient at evaporative heat loss than other large animal species. Further, sheep not sheared are at higher risk of heat-related illness.

Exercise intolerance due to lack of access to water, inappropriate shade, and lack of conditioning could lead to heat illness, but this can happen in any species, not just in ruminants.

Sheep can pant. Like dogs, they use panting to facilitate heat loss and cool off.

### Question: 15

A dairy cow delivered a calf about one hour ago with much difficulty. Her calcium was mildly low, and she is being treated for hypocalcemia

a. However, the maternal caruncles are visibly evident upon re-evaluation, and she continues to strain. Despite knowing she had only one fetus, she is restless, anxious, and anorexic. Her heart and respiratory rates are increased.

All of the following are necessary in addition to continued support for hypocalcemia, except:

- A. Clean off all feces and debris and protect the everted tissue until surgery, then clean with a mild presurgical scrub
- B. Administer clenbuterol to aid in the replacement and relaxation of the uterus
- C. Remove fetal membranes, if easily accomplished
- D. Administration of oxytocin (5–40 IU IV or IM) post replacement

**Answer: B**

Explanation:

Animals with dystocias (especially those secondary to hypocalcemia) or animals with hypocalcemia after calving are at increased risk of uterine prolapse. Lack of sufficient calcium leads to a delay in involution and a lack of uterine tone, increasing the risk of prolapse.

Replacement of the uterus first requires hydration (especially if the occurrence happened several hours before identification), cleaning of the affected organ, protecting it until surgery, and a mild presurgical scrub prior to



replacement. Replacement can be done in recumbency or while standing; the choice is the doctor's preference. In some countries, clenbuterol, a Beta-2 adrenergic agonist, can cause relaxation of the uterus and make replacement much easier. However, the FDA forbids the use of this drug in the US in food-producing animals. An epidural anesthetic is recommended, though many claim it is unnecessary. However, pain management needs are greatly underappreciated in food-producing animals, and it is humane to provide this service. If there are any uterine tears, these must be repaired before replacement.

Once the uterus has been replaced, administering oxytocin (5–40 IU IV or IM) can help stimulate uterine contractions, which will help keep it in place and improve the chances of involution, though it is an off-label use for it. Most commonly in cattle, oxytocin is used to aid in retained fetal membranes, for mild to moderate cases of acute postpartum metritis (for which those with uterine prolapse are at higher risk), or to augment uterine contractions during delivery. However, it is frequently used for additional obstetrics-related matters, such as uterine prolapse.

## Question: 16

You are doing yearly evaluations of a large dairy herd. There is a new farm owner, and you are reviewing production records, reviewing current practices, and evaluating the animals for welfare concerns. You notice that a large number of dry cows are over-conditioned. You notice that late lactation cows are also well- to over-conditioned, and some are obese. You mention this to the farmer, who states that he saw that upon taking over the farm and has given instructions for dry cows and those in late lactation to feed-restrict those who were overweight to get them to lose sufficiently. You want to educate him about why this is a bad idea.

You discuss fatty liver disease (fat cow syndrome/hepatic lipidosis) with the farmer in detail and explain that all of the following would be appropriate management measures to prevent disease onset, except:

- A. Decrease obesity, prevent obesity, especially in dry and late lactation periods
- B. Energy and feed restriction to achieve weight loss
- C. Provide sufficient protein in the dry period
- D. Ensure that feeding strategies match energy levels to that of the level of milk production in late lactation

**Answer: B**

Explanation:

Numerous strategies should be used to lessen the risk of fatty liver development. Fatty liver (hepatic lipidosis) occurs in cattle after delivery. Animals become progressively depressed and fail to respond to medical management for commonly seen post-parturition conditions. This happens in over-conditioned or obese animals, and they will show depression, anorexia, weight loss, weakness, and eventual recumbency. Further non-specific signs may include decreased milk production and rumen motility. They will often be afflicted by other concurrent diseases such as retained fetal membranes, metritis, mastitis, parturient paresis, or a displaced abomasum. Mortality can reach upwards of 25%. Fat mobilization occurs as a natural response to negative energy balance, transferring fatty acids to the liver for fuel. It represents one of the most significant postparturient metabolic diseases affecting dairy cows.

Means to prevent occurrences include measures to prevent over-conditioning in the dry period and late lactation stage.

Further, immediately treating any immediate post-partum condition, like retained fetal membranes, is crucial.

Additional measures include:

1. Prevent obesity.
2. Maintain a 12–13 month calving interval.

3. During all stages of a cow's life (breeding through lactation through dry periods), keep track of an animal's body score and adjust rations as needed.
4. Closely match energy rations to the level of lactation (especially during late lactation).
5. It is not recommended to restrict calories, energy, or protein levels at any time during the cow's life.
6. Prevent the feeding of excess energy.
7. Prevent severe calorie/feed restriction.
8. Provide sufficient protein during the dry period.
9. Provide additional grain two to four weeks before delivery helps acclimate the animal to increased needs after calving.
10. Do not skimp during the dry period. The animals still need high-quality rations but should not be overfed.
11. Treat any diseases noted after parturition immediately to lessen the risk of negative energy balance states.
12. Minimize stress on fresh cows and provide good ventilation, appropriate space, and other key factors.

### Question: 17

You are asked to evaluate a group of cattle. Calves have shown signs of diarrhea, blindness, pneumonia, and ill-thrift. Adults have been seen with diarrhea, blindness, nystagmus, strabismus, subcutaneous edema (anasarca), and some show stargazing posture. One animal is showing intermittent tonic-clonic activity. When stimulated, this can trigger seizures. Several animals have died. You are concerned about this vitamin deficiency and expect to see what changes on your ocular exam?

- A. Vitamin C deficiency; retinal detachment
- B. Vitamin E deficiency; retinal vessels are tortuous or occluded over the optic disc
- C. Vitamin B1 deficiency; lack of a pupillary light reflex
- D. Vitamin A deficiency; papilledema, pale optic disc

**Answer: D**

Explanation:

Vitamin A deficiency can cause abortions, congenital abnormalities, decreased sperm counts, decreased libido, blindness, seizures, skin problems, suppressed immunity, and may predispose animals to urolithiasis. Animals may have all signs described in the question as well. Unless concurrent disease or nutritional deficiencies also exist, they are generally still in good body condition. Neonates born to cows with vitamin A deficiency often have thickened carpal joints, domed foreheads, are very weak at birth, and are blind.

Ocular changes with vitamin A deficiency are very typical, though not pathognomonic. They include:

- Dilated, non-responsive pupils
- Papilledema leads to a pale optic disc with indistinct borders (especially dorsally, causing an inverted heart appearance)
- Over time, the optic disc fades
- Severe, advanced cases will have an atrophied optic disc
- Lack of a Pupillary Light Reflex (PLR)
- Retinal blood vessels will become tortuous or will seem to occlude while crossing the disc
- Subretinal hemorrhages and retinal detachment can occur

Differentials include Polioencephalomalacia (PEM) (as we can see with thiamine deficiency) or salt poisoning. However, the lack of a pupillary light reflex secondary to the retinal degeneration that occurs with vitamin A deficiency will not be seen with the other possible diagnoses where the optic nerves and mesencephalon still function normally.

Vitamin A is paramount in ocular health. Deficiencies arise when improper storage of feedstuffs or with abnormal processing as it isn't very stable and can be easily broken down by light, acids, heat, and oxygen. Storing foods at too high temperatures, feedstuff processing procedures, and rancidity can all lead to vitamin A drops in the feed, thus, leading to a herd deficiency.

Numerous B vitamins exist, and we can see deficiencies such as thiamine deficiency (B1). Still, this type of blindness (PEM) doesn't cause a loss of PLR.

Vitamin C deficiency is almost unheard of in ruminants since they can synthesize their own vitamin C, unlike humans, non-human primates, and guinea pigs.

### Question: 18

You are applying to jobs and have had trouble acquiring one despite the availability. You have been in practice for about 25 years, and thus, know that you have good experience and can offer a lot more than a new graduate can. You suspect that a combination of salary expectations and age prevents you from getting your dream job. Federal law protects people over what age from age discrimination in employment practices?

- A. 40 years of age
- B. 35 years of age
- C. 65 years of age
- D. 55 years of age

**Answer: A**

Explanation:

The Age Discrimination in Employment Act (ADEA) states that employees over 40 are protected from discrimination based on age. Discrimination can occur even if both parties involved in the job process (employer and potential employee) are over 40.

### Question: 19

You are discussing a patient's history with a client. The client tells you that her 12-year-old FS DSH has had decreased appetite and lethargy on and off for a few weeks. You inquire about any vomiting or diarrhea, but there isn't any. Your physical exam shows no abdominal pain, and the owner reports no overt signs of pain either. The owner is highly worried about cancer. You inquire about drinking and urination habits, and no changes have occurred. Given this owner's history, which of the following has to be a top differential for this patient?

- A. Pancreatitis
- B. Metabolic disease
- C. Cholangitis
- D. Neoplasia

**Answer: A**

Explanation:

Cats are not small dogs. Dogs may show a wide array of clinical signs with pancreatitis, from vomiting, and diarrhea, to anorexia, lethargy, abdominal pain, icterus, and weight loss. In some studies, less than 50% of cats have overt abdominal pain. The most common clinical signs appreciated are lethargy and decreased appetite. Some cats will have vomiting, varying degrees of dehydration, belly pain, icterus, and weight loss (depending on chronicity).

Metabolic disease is possible, but patients with endocrine disease usually have additional clinical signs such as changes in drinking/urination, coat quality changes, or other abnormalities that lead you in that direction.

Cholangitis patients (depending on the form, neutrophilic, lymphocytic, or chronic) tend to have signs ranging from vomiting to diarrhea and appetite changes. They, too, may be lethargic and may also have ptialism. However, they generally have painful abdomens more consistently than those with pancreatitis. The vomiting and diarrhea may be acute and significant or chronic and intermittent. In acute cases, patients are generally febrile. The signs tend to be a bit less generalized than lethargy and a decreased appetite, and the prevalence of pancreatitis, while not fully elucidated in cats, is presumed to be common. These patients may present with icterus but do not have to have reached that state yet. However, it cannot be ruled out as we commonly see more than one inflammatory condition in cats at a time, associated with the pancreas/liver/or GI tract.

Given the patient's age, Neoplasia has to be on the list. Still, based on your history evaluation and discussion and the patient's clinical signs, this wouldn't be the first thing we would jump to without ruling out other common causes of signs.

## Question: 10

You have a client who calls after finding a litter of kittens without a mother. She plans to bottle-feed and hand-raise the kittens. She saw the mother give birth yesterday but hasn't seen the mom since. The kittens have been crying for hours. How long does she need to stimulate the babies to urinate and defecate?

- A. First two weeks of life
- B. First month of life
- C. First one week of life
- D. First three weeks of life

**Answer: D**

Explanation:

Normally, mom's grooming helps to stimulate infants to go to the bathroom. However, without a mom's gentle tongue, humans need to stimulate neonates to go to the bathroom, generally for the first three weeks of life. You can use a cotton swab, finger, or tissue and softly rub the genital area. Rubbing the anal area accomplishes the same thing for stool. Normal infants have loose but not liquid stools. If they aren't defecating and you are concerned about constipation, you can always take the tip of a thermometer and place it in the rectum. This will often stimulate them to go.