

2012

**REGIONAL 4-H
HORSE BOWL**



SENIOR DIVISION

2012 Regional Horse Bowl Contest

Senior Division

Special Instructions

SEEDING ROUND (Central Region Only) – This first set of questions will be used in the Central Region to “seed” teams prior to beginning 1st Round Play.

QUESTION SETS (1-20) – There are 20 sets of 20 questions organized exactly as they have been in the past. There will be some repeated questions in this division due to the limited amount of study material available for this division.

BONUS QUESTIONS – There should be ample bonus questions for this division. Questions are listed in random order.

TIE BREAKERS AND REPLACEMENT QUESTIONS – There are 5 “sets” of 20 questions. Ignore the “set” organization. Some of these questions will likely be repeats of questions already asked during regular game play. The questions are not numbered so just make a “X” next to the questions used to keep track of which ones were used. If used as a replacement set, you can simply write the question number next to the question.

Good luck with your contest!

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Seeding Round (Central Region)

Q#	Question	Answer	Cat	Ref
1's	What are the two most commonly used products designed to protect the horse's leg during transportation?	Shipping quilts with wraps and shipping boots	Tack	HIH 1160-3
2's	What is the term for the outermost area of the equine ovary?	Medulla	Repro	HIH 910-4
3's	The potential to produce sperm increases relative to the size of what organ?	Testes (testicles)	Repro	HIH 920-1
4's	Muscles are classified into 3 categories, which one is under voluntary control and functions in the movement of the horse?	Skeletal muscle	Exer	HIH 840-1
1's	In what city is the headquarters for the Tennessee Walking Horse Breeders and Exhibitors Association located?	Lewisburg, TN	Intro	HIH 172B-2
2's	What organization is represented by the initials NARHA?	North American Riding for the Handicapped Association	Intro	HIH 198D-1
3's	What is the term for the slit in the eye that allows light to enter?	pupil	Train	ES 56
4's	What is the most important winter feed for horses?	Good quality hay	Health	HIH 420-1
9	What horse sport consists of a scored pre-determined pattern in which each movement is given a score from 0 to 10?	Dressage	Intro	HIH 181D-1
10	What type of plants are used to add nitrogen to a grass pasture?	legumes (clover)	Nutr	HIH 730-2
11	What organ is responsible for pumping the blood throughout the horse's body?	The Heart	Exer	HIH 830-1
12	What causes bumps on the bottom of both jaws of 3 to 4 year old horses?	Active eruption of the permanent molar	Select	HIH 240-3
13	What ventilation system is the most common and cost effective for horse facilities?	Natural ventilation	Facil	HIH 320-8
14	What is the term for the units used to describe the amount of energy needed by a horse?	Megacalories	Nutr	HIH 790-1
15	What part of the Horse is located between the tailhead and the loin?	The Croup	Select	HIH 220-7
16	What is an enterolith?	An intestinal stone (stone formed within the intestine)	Health	HIH 435-1
17	A simple feeding practice in parasite management is to never do what?	Never feed horses directly on the ground.	Health	HIH 430-5
18	Which teeth makeup the cheek teeth?	Premolars and Molars	Health	HIH 405-1
19	What is spermatogenesis?	The production of sperm	Repro	HIH 920-3
20	Name three of the vital signs you should assess during an examination of an unhealthy horse.	temperature; pulse; respiration; capillary refill time; mucous membranes; skin pliability	Health	HIH 425-1

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Question Set 1

Q#	Question	Answer	Cat	Ref
1's	What is the technical term for a mature follicle?	Graafian follicle	Repro	HIH 910-4
2's	During estrus, what hormone influences the cervix?	Estrogen	Repro	HIH 910-3
3's	When teasing mares, what is the preferred height of the partition between the mare and the stallion?	4 feet	Repro	HIH 930-1
4's	The single most important characteristic in equine selection which forms the basics for movement, length of stride and performance is referred to as what?	Balance	Select	HIH 220-5
1's	What is the term for coil-like structure exhibited by DNA?	double helix	Gene	ES 87
2's	What is the term for the procedure used to give a horse protection from a specific disease (usually by injection)?	Vaccination	Intro	HIH 110-5
3's	What is the most common type of incarceration colic?	Strangulating hernia	Health	HIH 435-1
4's	When was the American Paint Horse Association founded?	1962	Intro	HIH 163B-1
9	Where is the hoof wall the thinnest?	At the quarters	Foot	HIH 505-4
10	What type of open wounds are irregularly shaped with torn edges?	Lacerations or tears	Health	HIH 440-1
11	What is the purpose of the digital cushion?	To absorb shock	Foot	HIH 505-4
12	Name two steps that should be taken to treat a horse suffering from scratches.	clean affected area thoroughly; clip long hair; remove skin debris; apply ointments (or topical antibiotics)	Dis	TH 601
13	In each body cell of the horse, how many chromosome pairs are normally present?	32	Gene	ES 87; HIH 1020-1
14	Animals have different types of digestive systems based on what?	Where and how they digest feed components	Nutr	HIH 710-1
15	What is the technical term for lack of milk production?	Agalactia	Repro	HIH 750-3
16	What does EIPH stand for?	Exercise-Induced Pulmonary Hemorrhage	Exer	HIH 810-2
17	Name three materials commonly used for stall bedding.	1. Straw, 2. wood shavings, 3. sawdust, 4. ground corncobs, 5. recycled newspaper	Facil	HIH 330-1,2
18	Name three areas where muscling in the horse can be observed?	1. Arm, 2. Forearm, 3. Shoulder, 4. Stifle, 5. Gaskin, 6. Pectoral Area 7. Rear Quarters	Select	HIH 220-7
19	Why should you use a clothespin to attach a thermometer to the horse's tail when taking its temperature?	to prevent the thermometer from being sucked into the anus or expelled/broken	Health	ES 157
20	How many square feet are in one acre?	43,560 square feet	Facil	HIH 365-4

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Question Set 2

Q#	Question	Answer	Cat	Ref
1's	What are two causes of malaligned teeth?	Congenital (born with defect) or Injury	Health	HIH 405-4
2's	What British breed is known for its animation, personality, and strong way of going?	Hackney	Intro	HIH 158B-1
3's	At what age do horses' hooves grow at the highest rate?	Foals	Foot	HIH 505-6
4's	What is the term used to describe the many conditioned stimuli that are used in horse training?	Cues	Train	HIH 1240-1
1's	In what state did the Morgan breed originate?	Vermont	Intro	HIH 162B-1
2's	What is the common name for the bacterial infection caused by <i>Streptococcus equi</i> ?	Strangles	Dis	HIH 615-1; TH 596
3's	The canter is a ____ beat gait.	3	Intro	ES 74
4's	What is an abrasion?	A superficial skin wound caused by rubbing or scraping against an irritating surface.	Health	HIH 440-2
9	What is the term used to describe the percentage of a horse's expressed traits that is due to its genetics?	Heritability estimate	Gene	HIH 1020-3
10	What is the name of the canvas used to cover or wrap a pack load?	Manta	Tack	HIH 1125-3
11	Name the most common type of shoe used to treat navicular disease?	Some type of bar shoe	Foot	HIH 540-3
12	What is the name for the last nail hole on a horse shoe?	Heel Nail Hole	Foot	HIH 515-1
13	How often should horses be offered water during long trailer trips?	Every three to four hours.	Tack	HIH 1150-2
14	Why should sawdust and shavings be avoided as bedding in a foaling area?	1. They cling to the foal and afterbirth, 2. harbor micro-organisms 3. make cleaning the foal difficult.	Repro	HIH 940-3
15	What is the practical purpose of a breastcollar?	To keep the saddle from sliding backwards or sideways.	Tack	HIH 1100-12
16	At what age do the permanent central incisors erupt?	2 1/2 years	Health	HIH 405-1
17	What disease has been associated with closeness to rivers?	Potomac Horse Fever	Dis	HIH 650-1
18	What general portion of the horse's digestive tract contains the cecum, large colon, small colon and rectum?	Hindgut	Nutr	ES 112; HIH 710-2
19	As a general rule, how do you determine the height of fences used around small paddocks, corrals and stallion pens?	The top of the fence should be at eye level with the horse's head in a natural upright position	Facil	HIH 350-1
20	What is the purpose of a pannier?	To carry gear, food, or equipment on a pack horse	Tack	HIH 1125-3

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Question Set 3

Q#	Question	Answer	Cat	Ref
1's	In usual genetic shorthand, how are recessive genes expressed?	lowercase letters	Gene	ES 90; HIH 1020-2
2's	What procedure gives a veterinarian the most valuable information in diagnosing the type of colic that is occurring?	Rectal palpation	Health	HIH 435-2
3's	When properly fitting a Western saddle to a horse, what is the correct spacing between the horse's withers and the fork of the saddle?	Two fingers	Tack	HIH 1100-3
4's	What forage contains a fungal endophyte that causes reproduction problems in mares?	Tall Fescue (Fescue)	Nutr	HIH 760-3
1's	Name one management technique used to manipulate the estrous cycle.	Extended photoperiod, Hormonal stimulation	Repro	HIH 930-3
2's	What breed registry is represented by the initials AQHA?	American Quarter Horse Association	Intro	HIH 168B-1
3's	Name two types of shoes that may be used during the treatment of laminitis.	(1) heart bar; (2) frog bar; (3) reverse shoe; (4) glue-on shoe	Dis	HIH 640-3
4's	In normally conformed mares, approximately what percent of the opening in the vulva lies below the pelvic floor.	80%	Repro	HIH 910-1
9	What is the common name for a procedure known as epioplasty?	Caslick operation	Repro	HIH 910-1
10	What class of fire extinguisher should be kept in a barn?	Class ABC fire extinguisher.	Facil	HIH 340-2
11	What is the most complicated and life threatening condition of excessive fermentation colic?	Gastric dilation	Health	HIH 435-2
12	What type of cell division occurs in reproductive organs and produces sex cells?	meiosis	Gene	ES 88
13	Of the internal parasites, which one is the most significant and most common?	Strongyles (bloodworms)	Health	HIH 430-1
14	How many pounds are in one ton?	2000 lbs	Facil	HIH 365-4
15	What two pieces of tack are connected by the English Standing Martingale?	Noseband to the Girth	Tack	HIH 1100-10
16	What type of bit is very gentle to use, non-allergenic, and has a soft, apple-flavored rubber mouthpiece?	Happy Mouth	Tack	HIH 1100-10
17	At what height of pasture should horses be removed to prevent overgrazing?	3-4 inches	Facil	HIH 360-4
18	In high tensil wire fencing, how many strands are recommended for horses?	10 to 12	Facil	HIH 350-4
19	What organization is represented by the initials NHSRA?	National High School Rodeo Association	Intro	HIH 186D-1
20	What breed is noted for its soundness, beauty, and especially stamina?	Arabian	Intro	HIH 153B-1

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Question Set 4

Q#	Question	Answer	Cat	Ref
1's	What structure ruptures in the "breaking of the water" during foaling?	Chorio-allantoic membrane	Repro	HIH 940-4
2's	Which category of vitamins includes thiamin, riboflavin, niacin, biotin, folic acid and vitamin C?	Water soluble vitamins	Nutr	ES 122; HIH 760-10
3's	What horse sport is characterized by spins and sliding stops?	Reining	Intro	HIH 183D-1
4's	What is a farrier?	A person who trims and/or applies shoes to horses' hooves	Intro	HIH 110-5
1's	Why are clips used on horseshoes?	Clips take the stress off the nails and stabilize the shoe on the foot	Foot	HIH 515-2
2's	What ions present in the actin and myosin filaments cause muscle contraction?	Calcium ions	Exer	HIH 840-2
3's	The Jockey Club will only register horses conceived by what breeding method?	Live cover/natural cover	Intro	HIH 173B- 2
4's	What cellular element of blood is involved in blood clotting?	Platelets	Exer	HIH 830-1
9	How many chambers are found in a horse's heart?	Four	Exer	HIH 830-1
10	Equine infectious anemia is comparable to what human disease?	HIV	Dis	HIH 630-1
11	An injury to the sole of the foot caused by concussion is called a what?	Sole bruise	Foot	HIH 540-1
12	Fossil evidence shows that members of the horse family existed how long ago?	60 million years	Intro	ES 5, TH 3
13	What is the name of the slowest gait that is common to all breeds of horses?	walk	Intro	ES 70
14	What is the best and most simple way to initially clean a wound?	Hosing (with water)	Health	HIH 440-3
15	When do deciduous corner incisors erupt?	6 to 9 months	Health	HIH 405-1
16	What is the term used to describe the actual alleles present in genetic makeup of a horse?	Genotype	Gene	ES 91; HIH 1060-2
17	What two by-products are formed by bacterial degradation of animal waste?	Nitrates and phosphates	Facil	HIH 360-2
18	Evaluating the width of the chest can best be accomplished from what view?	The front of the horse	Select	HIH 220-1
19	Name a type of shoe that has fullering or creasing all the way around the shoe	Concave "Rim" shoe	Foot	HIH 515-4
20	What genetic disorder is common in fast-growing breeds and is characterized by abnormal bone growth that affects the horse's joints?	osteochondrosis	Gene	ES 101

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Question Set 5

Q#	Question	Answer	Cat	Ref
1's	What is the term for the condition when air and debris is sucked into the reproductive tract?	Pneumovagina or windsucking	Repro	HIH 910-1
2's	Name the body color that describes a uniform mixture of black and white hairs on the body with a darker head and legs.	Blue Roan	Intro	HIH 140-1, ES 47
3's	Which overo pinto pattern is responsible for the jagged and sometimes speckled pattern typically seen on Clydesdale horses?	Sabino	Intro	ES 49
4's	Compared to other hoof parts, the hoof wall contains more of what mineral?	Zinc	Foot	HIH 505-2
1's	What do the initials PVC stand for?	Polyvinyl chloride	Facil	HIH 350-5
2's	What are the two basic classifications of forages?	Grasses and Legumes	Nutr	HIH 760-1
3's	What is another meaning of the term, "gestation"?	Preganancy	Repro	HIH 940-2
4's	What structure in the hoof supports the primary weight of the horse?	Hoof wall	Foot	HIH 505-4
9	What are the two most common hernias in foals?	Umbilical and scrotal	Repro	HIH 950-9
10	What age of horse is primarily affected by ascarids?	Foals and young growing horses	Health	ES 189; 430-1
11	What is the most devastating bacterial cause of pneumonia in foals?	Rhodococcus equi (or Cornebacterium equi)	Repro	HIH 950-7
12	What disease do the initials EPM stand for?	Equine Protozoal Myeloencephalitis	Dis	HIH 670-1
13	Which breed of horse is primarily association with hyperkalemic periodic paralysis?	Quarter Horse	Gene	ES 98; HIH 1060-6
14	What farrier tool is used to remove the surplus growth of the hoof wall?	Hoof nippers	Foot	HIH 530-1
15	What is the hormone associated with diestrus behavior?	Progesterone	Repro	HIH 910-6
16	When a chestnut horse also has a single dose of the crème gene, what is the resulting color?	Palomino	Gene	HIH 1040-2
17	What is the name for a stimulus that has been learned through practice?	Conditioned stimulus	Train	HIH 1240-1
18	What gene controls whether a horse will have a black-based or red-based body color?	extension gene	Gene	ES 94
19	What is considered the main or "master" reproductive organ of the stallion?	Testes	Repro	HIH 920-1
20	What is the primary energy source utilized by contracting muscles while a horse is walking?	Fat	Exer	HIH 840-3

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Question Set 6

Q#	Question	Answer	Cat	Ref
1's	A conformational fault that refers to horses whose entire forelimb is too far under its body is known as what?	"Camped Under"	Select	HIH 230-5
2's	Feeds should be provided by weight, not by what?	Volume	Nutr	HIH 710-5
3's	What vitamins are involved as cofactors for enzymes that convert fats and carbohydrates to energy for muscular work?	B vitamins	Exer	HIH 820-2
4's	What type of open wound has a small skin opening and may be more serious than it appears?	Puncture wound	Health	HIH 440-1
1's	What is the term for an allele that is masked by the other allele in the gene pair?	recessive	Gene	ES 90
2's	Pinto color patterns are often described by one of what two general terms?	Tobiano and Overo	Intro	HIH 140-1
3's	What does GnRH stand for?	Gonadotropic Releasing Hormone	Repro	HIH 910-5
4's	If the middle incisors of the upper jaw are so far forward that they do not contact the incisors of the lower jaw, this horse is said to be what?	Parrot-mouthed	Health	HIH 405-4
9	What is one reason why shavings and sawdust not recommended as bedding for foaling stalls?	1. They cling to the foal and afterbirth, making it difficult to clean the foal or inspect the afterbirth. 2. They harbor microorganisms that may infect the foal. 3. They may be easily inhaled by the foal and stick to airways	Repro	HIH 940-3, 330-1
10	What is the term used to describe a cavity formed by the leakage of blood from vessels damaged by a contusion?	Hematoma	Health	HIH 440-5
11	To provide a safe interior in a horse trailer what should be on the side walls, partitions and front of the manger to prevent injuries?	Padding	Tack	HIH 1155-3
12	An active population of what are found in the horse's hindgut?	Bacteria and protozoa (Microbes)	Nutr	ES 112; HIH 710-2
13	What is the length of a mares estrus cycle?	21 to 23 days	Repro	HIH 915-5
14	When using a clay and sand mix for stall floors, what are the recommended proportions of clay and sand?	2/3 clay and 1/3 sand	Facil	HIH 320-2
15	What two characteristics are exhibited by surviving animals with chromosomal abnormalities?	Growth defects and infertility	Gene	HIH 1060-3
16	What type of digestion takes place in the hindgut of the horse?	Fermentive or microbial digestion	Nutr	HIH 710-1
17	Why are heat lamps a major source of barn fires?	They are placed too close to hay or bedding which can ignite from the heat.	Facil	HIH 340-2
18	What happens to a horse when non-specific cues are presented?	It becomes confused	Train	HIH 1240-2
19	Name one parasite that is transmitted to healthy horses through contact with infected horses, blankets, or grooming equipment.	Mites (mange mites) or lice	Health	ES 186, 187; HIH 415-9
20	What body system is affected by EPM?	central nervous system	Dis	HIH 670-1

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Question Set 7

Q#	Question	Answer	Cat	Ref
1's	What part of the horse is affected by navicular disease?	Hoof	Foot	HIH 540-3
2's	What piece of equipment is designed to protect the hoof wall?	A shoe	Foot	HIH 515-1
3's	What is the key factor to consider when selecting a vehicle to pull a trailer?	Safety	Tack	HIH 1155-1
4's	What instrument is used to measure the IgG concentration of a colostrum sample?	Colostrometer	Repro	HIH 950-3
1's	What is anestrus?	A nonreproductive period of time (occurring in the winter season) when mares do not have estrous cycles (reproductive quiescence or reproductive hibernation)	Repro	HIH 910-5
2's	Name one of the two breed registries which are represented by the initials AMHA.	American Morgan Horse Association, American Miniature Horse Association	Intro	HIH 160B-1, HIH 162B-2
3's	What is the symbol for the silver dapple gene?	Z	Gene	HIH 1040-2
4's	Under normal conditions how does the horse cool itself?	By sweating	Health	HIH 410-1
9	In addition to a pre-purchase exam, what records might a prospective owner request from the seller?	Any of the following are correct: 1. deworming, 2. vaccination3. complete health records	Select	HIH 210-5
10	Name two types of Western type headstalls.	1. Split ear, 2. Slip ear (one ear), 3. Conventional	Tack	HIH 1100-8
11	Name the fat-soluble vitamins.	A, D, E, K	Nutr	ES 111; HIH 710-2, 760-10
12	What organism is responsible for transmitting the bacteria that causes Lyme disease to horses or other animals?	Ticks (Ixodes ticks)	Dis	HIH 655-1
13	What breed registry is represented by the initials PBA?	Palomino Horse Breeders of America	Intro	HIH 164B-1
14	In a 24 hour period an adult horse will ordinarily produce how many pounds of fecal material?	28-50 pounds, or 40-50 pounds	Health	ES 114; HIH 425-2 or 360-2
15	Traumatic arthritis of what joint results in osselets?	Fetlock Joint	Health	HIH 455-5
16	What is the principal immunoglobulin present in colostrum	Immunoglobulin G (IgG)	Repro	HIH 950-2
17	What is the name for a pad that is removable after the shoe is on the foot?	Hospital Plate	Foot	HIH 515-5
18	What type of chromosomes are referred to as "X" and "Y"?	Sex chromosomes	Gene	ES 91; HIH 1060-1
19	Name the body color that describes a smokey or mouse-colored horse with a black mane and tail and often a dorsal stripe.	Grulla	Intro	HIH 140-1, ES 43
20	What acid accumulates in muscle and is believed to cause muscle soreness?	Lactic acid	Exer	HIH 895-1

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Question Set 8

Q#	Question	Answer	Cat	Ref
1's	Other than heredity, what other major factor affects the horse's genetic potential?	Enviromental effects (enviroment)	Gene	HIH 1020-3
2's	What Principle states that a gene will perform the same whether inherited from the dam or the sire.	Principle of reciprocal crosses.	Gene	HIH 1060-3
3's	What are the two goals of a water quality plan?	Reduce runoff and protect groundwater	Facil	HIH 360-1
4's	What is the name of the tube that transports food from mouth to the stomach?	esophagus	Nutr	ES 109
1's	What is the primary objective of most grain processing methods?	To improve availability/digestabilty of starch	Nutr	HIH 760-9
2's	What are hair like projections found in the oviduct and that are responsible for transportation of sperm and ovum?	Cilia	Repro	HIH 910-3
3's	How many hours of light are needed to provide a consistent reproductive response light stimulation	16 hours	Repro	HIH 930-3
4's	Mange is a contagious skin disease caused by what type of parasite?	Mites	Health	ES 187; 415-8
9	What piece of farrier's equipment is hammered on, in order to shape the shoe?	Anvil	Foot	HIH 530-4
10	How does the thickness of a mouthpiece effect the severity of a bit?	The thicker the mouthpiece the milder the bit, or the smaller the mouthpiece the more severe the bit.	Tack	HIH 1100-8
11	Thoroughbreds can reach up to what speed when galloping?	40 mph	Intro	HIH 173B-1
12	A newborn foal will develop front incisor teeth within the first how many days of life?	8	Select	HIH 240-1
13	What is the primary means by which horse parasites are spread?	manure (eggs)	Health	HIH 430-4
14	What hormone causess the familiar receptive behavior patterns observed in mares during heat?	Estrogens	Repro	HIH 910-6
15	What is primary cause of runoff on horse farms?	Overgrazing	Facil	HIH 360-4
16	How long does diestrus last?	Approximately 14 to 16 days	Repro	HIH 910-5
17	What serious condition may develop if horses who have previously had Strangles are vaccinated for the disease?	Purpura hemorrhagica	Dis	HIH 615-2
18	Name three clinical signs of equine influenza.	Loss of appetite, dullness, frequent dry cough, fever, nasal discharge, weakness	Dis	HIH 605-1; ES 176; TH 597
19	Which highly nutritious hay is recommended for post-partum mares?	Alfalpa	Repro	HIH 940-5
20	Name the only draft horse breed to originate and be recognized as a breed in the United States.	American Cream Draft	Intro	HIH 155B-1

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Question Set 9

Q#	Question	Answer	Cat	Ref
1's	After a horse has received the initial two doses of tetanus toxoid, how often should it be vaccinated for the disease?	Annually	Dis	HIH 645-2; ES 172; TH 604
2's	What South American breed is known for its smooth four-beat gait?	Peruvian Paso	Intro	HIH 166B-1
3's	What is the wooden dowel device placed around a horse's neck to prevent them from reaching their bandages?	Neck Cradle	Tack	HIH 1160-3
4's	Which rhinopneumonitis virus strain only rarely causes abortion in mares?	EHV-4	Dis	HIH 610-1; ES 178
1's	How does the horse get rid of excess nitrogen from dietary protein?	It is excreted in the urine	Exer	HIH 820-2
2's	What stallion is recognized as the foundation sire of the Pony of the Americas breed?	Black Hand No. 1	Intro	TH 59
3's	What animal is the definitive host for the organism that causes EPM?	opossum	Dis	HIH 670-1
4's	What is the average nitrogen content in horse manure on an as-is basis?	12 lbs N/ton	Facil	HIH 365-1
9	What reproductive structure in the mare may be the size of a tennis ball during the summer months?	Ovary	Repro	HIH 910-4
10	What is the primary symptom that is noticed in animals infected with Rabies?	unexplainable changes in behavior	Dis	HIH 680-1
11	What part of the Horse is Binocular and Monocular?	Eyes or Vision	Train	ES 56; HIH 1220-1
12	Compared to untreated posts, how many times longer will properly pressure-treated posts last?	Four	Facil	HIH 350-2
13	How many gallons of blood are found in an adult, 1,000-pound horse?	13.2 gallons	Exer	HIH 830-1
14	What cues are the most commonly used in horse training?	1. Voice commands, and 2. pressure (legs and/or hands)	Train	HIH 1240-2
15	What is a learned behavior?	one that is taught to the horse	Train	ES 67
16	Approximately how long does it take food particles to pass through the horse's entire digestive system?	36 to 72 hours	Nutr	ES 114; HIH 710-3
17	What do the initials ADF stand for?	Acid detergent fiber	Nutr	ES 146; 750-2
18	Once infected, how long does a horse remain infected with equine infectious anemia?	The rest of the horse's life	Dis	HIH 630-1
19	At what point in gestation does EHV-1 tend to cause abortion?	between 8 and 11 months (can be as early as 4 months) OR last third of gestation	Dis	HIH 610-1; TH 598
20	What is the term for any inflammatory disease of the lungs?	pneumonia	Dis	TH 597

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Question Set 10

Q#	Question	Answer	Cat	Ref
1's	What is the common name for ascarids?	Roundworms	Health	ES 189; HIH 430-1
2's	What color patten is frequently confused with gray?	Roan	Gene	HIH 1040-3
3's	If using a stallion cage during group teasing, how many minutes are recommended to allow all mares the opportunity to demonstrate estrus behavior?	15 to 20	Repro	HIH 930-2
4's	Define the term "blemish."	An abnormality that does not affect the intended use of serviceability (or performance).	Select	HIH 230-1
1's	What is meant when it is said that equine sweat is hypertonic?	It contains a signigicant amount of salts, primarily sodium and potassium	Exer	HIH 860-3
2's	What physical attribute of the horse is related to body condition score?	Degree of fat cover	Nutr	HIH 710-4
3's	What protein supplement may contain the toxic substance, gossypol?	Cottonseed meal	Nutr	HIH 760-8
4's	What type of bit does not apply pressure to a horse's mouth?	Hackamore	Tack	HIH 1100-8
9	What term is used to indicate the degree of expression of a trait for which an animal has the gene?	Penetrance	Gene	HIH 1060-2
10	Equine infectious anemia may also infect what two near relatives of the horse?	Donkeys, mules	Dis	HIH 630-1
11	What device located behind each horse in a trailer, provides a safety mechanism in case a door comes open?	Butt Bar or Butt Chain	Tack	HIH 1155-3
12	When evaluating a horse for purchase, which of the three -- Buyer, Seller or Trainer should not ride the horse first?	The Buyer (due to safety considerations)	Select	HIH 210-5
13	Deep indentures (Cups) in the horses permanent teeth are used to help determine what?	Age	Select	HIH 240-3
14	What laboratory examination can help determine the probability that a mare will maintain a pregancy to term?	Uterine biopsy	Repro	HIH 940-2
15	Which domestic animal has the longest heat period?	Horse	Repro	HIH 910-5
16	What tool provides the best method of diagnosing navicular disease?	Hoof testers	Foot	HIH 540-3
17	What breed of horse was the first to bear a state name?	Tennessee Walking Horse	Intro	HIH 172B-1
18	What cells in the testes produce both testosterone and estrogen?	Leydig cells	Repro	HIH 920-2
19	What is the common name for horses that have exercise-induced pulmonary hemorrhage?	Bleeders	Exer	HIH 810-2
20	What is the term for the sole bruises caused by leaving short heeled shoes on too long?	Corns	Foot	HIH 540a

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Question Set 11

Q#	Question	Answer	Cat	Ref
1's	What is the name for a young horse under 6-12 months of age of either sex?	Foal	Intro	HIH 110-5, ES 23
2's	What condition is commonly seen in the cannon bone area of young horses soon after they enter training?	Splints	Health	HIH 455-6
3's	Name one good alternative to buying a horse that you might try before deciding to buy.	Leasing (also acceptable: Riding lessons)	Intro	HIH 110-1
4's	Galvayne's Groove appears at about what age?	10-12 years of age	Select	HIH 240-4
1's	Name the two most important natural transmitters of equine infectious anemia.	Horse flies, deer flies	Dis	HIH 630-1
2's	What are two signs of a constipated foal?	Flagging (flapping) of the tail, Straining to defecate	Repro	HIH 950-2
3's	What face marking is characterized by a narrow band of white hair between the horse's eyes that stops above the muzzle?	Stripe	Intro	HIH 140-2, TH 82
4's	Name the iron-containing protein of red blood cells.	Hemoglobin	Exer	HIH 830-1
9	What is the name for the leather, rope, or nylon headpiece that is used to control, lead, and tie a horse?	Halter	Intro	HIH 110-5
10	Why are grains mixed with molasses?	Improve taste; palatability; prevent freezing; reduce dust	Nutr	HIH 791-3
11	What type of colic is generally resolved with mild medical treatment?	Spasmodic colic	Health	HIH 435-1
12	What type of shoes are used to enhance leg action by changing the timing of and adding momentum to hoof flight patterns.	Weighted shoes	Foot	HIH 515-3
13	When viewed from the rear, horses that are in at the hock and out at the toe have what conformational fault?	Cow hocked	Select	HIH 230-7
14	What serious bacterial infection is a result from an untreated or infected umbilical stump?	Septicemia (joint or navel ill)	Repro	HIH 950-5
15	What involves teaching the horse to make a desired response?	training	Train	HIH 1240-1
16	List two non-steroidal anti-inflammatory drugs	(1) phenylbutazone ("bute"); (2) flunixin meglumate ("banamine"); (3) ketoprofen; (4) dimethyl sulfoxide (DMSO)	Dis	HIH 640-2
17	On what forage do blister beetles feed?	Alfalfa	Health	HIH 415-9
18	Name three clinical signs of Potomac Horse Fever.	profuse watery diarrhea; fever; depression; severe dehydration; shock; laminitis); colic; lack of appetite; decreased or absent gut sounds; abdominal distention	Dis	HIH 650-1; TH 602
19	What is the term used to describe the eating of feces?	Coprophagy	Health	HIH 425-6
20	Horses that sweat profusely lose water as well as what?	Electrolytes (salts)	Health	HIH 410-1

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Question Set 12

Q#	Question	Answer	Cat	Ref
1's	In what part of the world did donkeys most likely originate?	Africa	Intro	HIH 156B-1
2's	What is generally recommended, and sometimes required by law, that owners do with Coggins positive horses?	Euthanization	Dis	HIH 630-2
3's	What should the calcium to phosphorous ratio be in the diet of an adult horse?	1:1 to 3:1	Nutr	ES 133
4's	What mode of inheritance is found in hyperkalemic periodic paralysis in Quarter Horses?	dominant	Gene	ES 99; HIH 1060-3
1's	Define the word "tack."	Any or all of the equipment (saddle, bridle, harness) used to ride and/or drive a horse.	Tack	HIH 1100-1
2's	Name a medication often used with mild cases of foal diarrhea.	Pepto-Bismal or Kaopectate	Repro	HIH 950-6
3's	What is the name of the registry for horses of Pinto coloration and stock-type breeding?	American Paint Horse Association	Intro	HIH 163B-1
4's	What two-beat lateral gait is primarily performed by Standardbred horses?	pace	Intro	ES 79
9	What term means "pleasant to the taste"?	palatable	Train	ES 66
10	What is another term for the conceptus?	Embryo	Repro	HIH 910-6
11	In months what is the average gestation period of the mare?	11 months	Repro	HIH 910-5
12	What is the consequence of a downward tilting conformation of the uterus?	Backwash of urine or urine pooling	Repro	HIH 910-3
13	What is muscle hypertrophy?	An increase in the diameter of the individual muscle fibers.	Exer	HIH 895-2
14	What procedure is used to visualize or examine the chromosomes under a microscope?	Karyotyping	Gene	HIH 1060-1
15	Name two internal parasites that can lead to colic.	large roundworms (ascarids); tapeworms; strongyles (large and/or small); bots	Health	ES 188,189; HIH 435-3
16	If someone wants to begin a breeding program, what two sexes should be purchased?	Mares and stallions	Select	HIH 210-4
17	What American breed registry registers Appaloosa horses?	Appaloosa Horse Club	Intro	HIH 152B-1
18	What part of the hoof is prone to bruises?	Sole (toe and quarter areas)	Health	HIH 455-3
19	What common hoof problem is described as bruises of the sole at the angle of the wall and bar of the hoof?	Corns	Health	HIH 455-2
20	What is the term for a partial or complete blockage of the esophagus?	Choke	Dis	TH 611

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Question Set 13

Q#	Question	Answer	Cat	Ref
1's	Name one hormone that may be used to "schedule" or synchronize estrus in mares.	Prostaglandin or Progesterone	Repro	HIH 930-4,5
2's	EPM infections in horses usually come from pasture, hay, grain, and water contaminated by what?	opossum feces	Dis	HIH 670-1
3's	Since wind forces air to move through buildings, how should a barn be oriented with respect to prevailing winds?	Perpendicular to prevailing winds.	Facil	HIH 320-8
4's	What substance in the mouth begins the process of digestion?	Saliva (amylase)	Nutr	HIH 710-1
1's	What breed initially became famous and was named for its sprinting ability?	American Quarter Horse	Intro	HIH 168B-1
2's	A horse with a positive Coggins test may be dealt with in one of what two ways?	Euthanize or house at least 200 yards from any other horse (or shipped to recognized isolation facility)	Dis	HIH 630-2; ES 176
3's	What part of the vulva can be plainly seen during estrus when the mare exhibits winking?	Clitoris	Repro	HIH 910-1
4's	What condition may be present in foals that grind their teeth and lie on their backs with legs in the air?	stomach ulcer	Repro	HIH 950-3
9	Hyperthermia is a term used to indicate what condition of a horse?	Overheating	Health	HIH 410-1
10	What has a granulosa, theca interna and theca externa?	Follicle	Repro	HIH 910-4
11	What injections are given to weak foals with white muscle disease?	Vitamin E/selenium injections	Repro	HIH 950-7
12	What test is used to determine the amount of lime and fertilizer to apply to pasture?	Soil test	Nutr	HIH 730-3
13	What process protects the newborn foal against diseases by absorption of antibodies in colostrum?	Passive transfer of immunity	Repro	HIH 950-2
14	Which energy source for muscle contraction cannot be metabolized anaerobically?	Fat	Exer	HIH 840-3
15	The parotid, submaxillary and sublingual glands secrete what substance?	Saliva	Health	HIH 425-3
16	What is absolutely essential to the efficiency of any horse breeding program?	Detection of estrus or heat	Repro	HIH 930-1
17	During anaerobic exercise or in an oxygen depleted state, what energy source can be metabolized rapidly for ATP production?	Glycogen	Exer	HIH 840-3
18	How many inches are in a hand?	4 inches	Intro	ES 27, TH 16
19	What is the most essential nutrient required by the horse?	Water	Health	HIH 420-2
20	On average, how many times do foals nurse each hour during their first week of life?	Seven	Repro	HIH 950-3

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Question Set 14

Q#	Question	Answer	Cat	Ref
1's	What is the most desirable material for building stalls?	wood	Facil	HIH 320-5
2's	What is a pus pocket or infection of the sensitive structures of the foot?	Abscess	Foot	HIH 540-2
3's	What farrier tool is used to shape and make shoes?	A rounding hammer (turning hammer)	Foot	HIH 530-4
4's	What organization is represented by the initials USDF?	United States Dressage Federation	Intro	HIH 181D-1
1's	What organization is represented by the initials NRHA?	National Reining Horse Association	Intro	HIH 183D-1
2's	How can one determine which parent is carrying a certain gene?	genetic testing	Gene	HIH 1060-6
3's	List three clinical signs of Heaves.	cough; shortness of breath with exercise; nasal discharge; flaring nostrils; wheezing; difficulty breathing; "heave line" on abdomen	Dis	ES 181; TH 607
4's	What is the general term for a substance that is produced by one tissue and effects target tissues?	Hormone	Repro	HIH 910-5
9	What is the most commonly used metal for manufacturing bits?	Stainless steel	Tack	HIH 1100-10
10	What is the simplest and most effective management practice for bringing mares into heat prior to the natural breeding season?	Use of extended daylength (artificial light)	Repro	HIH 930-3
11	At about what age does Galvayne's Groove completely vanish?	30 years age	Select	HIH 240-4
12	Lethal white foal syndrome is a condition that may be produced by mating two horses of what coat color pattern?	overo (frame overo)	Gene	ES 98; HIH 1060-6
13	Give the various intervals when the molars erupt.	1. At 1 year, 2. at 2 years, and 3. at 3 1/2 to 4 years.	Health	HIH 405-1
14	What is the term for dropping partially chewed feed or hay from the mouth?	Quidding	Health	HIH 405-3
15	What well-defined skeletal structure holds the saddle on the horse without the need to excessively tighten the cinch?	Withers	Select	HIH 220-6
16	What color describes horses that are born one color but grow progressively lighter as they age, often appearing white when older.	Gray	Intro	HIH 140-1, ES 45, TH 81
17	A horse cannot use its binocular vision to see objects closer than how far from it?	4 to 6 feet	Train	ES 67; HIH 1220-1
18	What is the primary goal of a pleasure saddle?	Comfort	Tack	HIH 1100-4
19	What is the technical term wanderer, barker, or dummy foals?	Neonatal Maladjustment Syndrome (NMS)	Repro	HIH 950-8
20	What type of cinch is used to secure the entire load when packing?	Lash Cinch	Tack	HIH 1125-5

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Question Set 15

Q#	Question	Answer	Cat	Ref
1's	What is the common name for <i>Gastrophilus intestinalis</i> ?	Common horse bot fly	Health	HIH 415-5
2's	What type of cinch would you find on a decker pack saddle?	Center-fire rigged single cinch	Tack	HIH 1125-1
3's	As a percentage of body weight, what is the minimum amount of long-stemmed roughage that a horse should receive daily?	0.75 to 1% OR 1% of the horse's body weight	Nutr	HIH 710-4, 710-1
4's	What two areas of the foot are separated by the white line?	The sole and the wall	Foot	HIH 525-1
1's	What is a barren mare?	A mare that was bred in the previous or current season but is not pregnant	Repro	HIH 940-1
2's	What type of muscle fibers are slow-contracting, fatigue-resistant and utilize fuels aerobically?	Type I	Exer	HIH 840-2
3's	What is another term for the sense of touch?	tactile sense	Train	ES 64
4's	What is the function of the respiratory system?	exchange oxygen and carbon dioxide between the animal and the environment	Exer	HIH 810-1
9	What is intermittent reinforcement?	Giving reinforcement at irregular intervals.	Train	HIH 1240-5
10	How many permanent teeth do mares most commonly have?	36	Select	HIH 240-3
11	What are the two main reasons to use molasses in horse feeds?	Improve palatability; prevent freezing; reduce dust	Nutr	HIH 760-7
12	What are the target organs for FSH and LH in mares?	Ovaries	Repro	HIH 910-6
13	In what year was the American Quarter Horse Association founded?	1940	Intro	HIH 168B-2
14	What physical attribute of the horse may be used as a feeding guide?	Degree of fat cover, or body condition	Nutr	HIH 710-4
15	What are complete feeds?	They combine concentrates and forages into one product	Nutr	HIH 791-4
16	What is the term for a horse whose toes point inward, also known as toed in?	pigeon toed	Select	HIH 230-1
17	What term is used to describe the disruption and/or tearing of the tendon fibers in the horse's leg?	Bowed Tendon/Tendonitis/Tendon Strain	Health	HIH 455-7
18	What bacterial disease can cause abortions and is spread through the urine of host animals?	leptospirosis	Dis	ES 170
19	What viral disease that affects the central nervous system is a serious concern because there is no treatment and it is almost always fatal?	Rabies	Dis	HIH 680-1
20	What is the term used to describe the exterior opening to the mares reproductive canal?	Vulva	Repro	HIH 910-1

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Question Set 16

Q#	Question	Answer	Cat	Ref
1's	How is equine infectious anemia spread between horses?	Transfer of blood (biting insects, surgical equipment, needles, etc.)	Dis	HIH 630-1
2's	The American Miniature Horse must not exceed what height?	34 inches	Intro	HIH 160B-1, TH 67
3's	In training terms what does the term "trial" mean?	Practice	Train	HIH 1240-6
4's	What type of wire is not recommended for horse fencing?	Barbed wire	Facil	HIH 350-4
1's	Name four natural aids used for riding or training.	hands; legs; seat; weight; voice	Train	ES 65-66
2's	Explain the designation 64, XY.	The horse has 64 chromosomes and is a male	Gene	ES 91; HIH 1060-1
3's	Parasitic wasps can be used to control what problem at a horse barn?	Flies	Health	HIH 415-3
4's	What disease that can be caused by Salmonella or Clostridium bacteria can be difficult to distinguish from Potomac Horse Fever?	colitis	Dis	HIH 650-1
9	What is the name of the three-layered, hollow, Y-shaped organ in the mare's reproductive tract?	uterus	Repro	HIH 910-3
10	What is the common name for Recurrent Airway Onstruction or Chronic Obstructive Pulmonary Disease?	Heaves	Dis	ES 181; TH 607
11	"Figure" was the foundation sire of what breed?	Morgan	Intro	HIH 162B-1
12	What is caused by a true lethal trait?	Embryonic Death or Death before birth	Gene	HIH 1060-4
13	Name two common calcium sources added to feeds.	limestone(Calcium Carbonate); dicalcium phosphate; oyster shells	Nutr	ES 132; HIH 790-6
14	How many gallons of water will a mature, idle 1,000-pound horse drink each day?	5-12 gallons	Nutr	ES 114; HIH 710-7
15	What color should the gums be in a normal, healthy horse?	medium pink	Health	ES 163
16	Adult cattle grubs are also known as what?	Heel flies or bomb flies	Health	HIH 415-6
17	What type of colic is due to overactive muscular contractions of the intestinal tract?	Spasmodic colic	Health	HIH 435-1
18	The Withers, back, loin or coupling, and croup refer to what area of the horse?	Topline	Select	HIH 220-6
19	What do the initials DOD stand for?	Developmental Orthopedic Disease	Nutr	ES 138; 783-1
20	The term for a horse whose toes point outward (toes-out) is also called what?	"Splay Footed"	Select	HIH 230-2

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Question Set 17

Q#	Question	Answer	Cat	Ref
1's	What are the two categories of stimuli?	Conditioned and unconditioned	Train	HIH 1240-1
2's	What is the common number of permanent teeth for a stallion?	40 (or 42 if including wolf teeth)	Select	HIH 240-3
3's	When do the center permanent incisors erupt?	2 1/2 years	Select	HIH 240-2
4's	Approximately how much in pounds does a normal placenta weigh?	13 to 14 pounds	Repro	HIH 940-5
1's	Horses are more likely to be at risk for encephalomyelitis year round if they live in what type of climate?	A warm climate	Dis	HIH 625-2
2's	When are "high protein" concentrate feeds necessary for performance horses?	When very low protein roughages are being fed.	Exer	HIH 820-2
3's	What is the term for the fold of tissue that separates the vestibule from the vagina that is often intact in maiden mares?	Hymen	Repro	HIH 910-1
4's	What health problem is caused by <i>Acremomyium coenophialum</i> ?	Fescue toxicity (fescue toxicosis)	Nutr	HIH 730-5
9	What method is used to determine the degree of rotation of the coffin bone that may have occurred in the hooves of a horse with laminitis?	Radiographs (x-rays)	Dis	HIH 640-2
10	What gene controls whether a black-based horse will be black or bay?	agouti	Gene	ES 95
11	At what age do the intermediate incisors erupt?	3 1/2 years	Health	HIH 405-1
12	Name the two large polymerized protein molecules responsible for muscle contraction?	Myosin and actin	Exer	HIH 840-1
13	What two hormones are secreted by the stallion's Leydig cells?	Testosterone and Estrogens	Repro	HIH 920-2
14	Age determination is most accurate before a horse reaches approximately what age?	10 to 14 years	Select	HIH 240-1
15	What disease does EIA stand for?	Equine Infectious Anemia	Dis	HIH 630-1; TH 600
16	The very top of the horse's head is called the what?	the poll	Select	HIH 220-3
17	The neck is used by the horse as a what?	Balance arm	Select	HIH 220-5
18	What type of gene action influences most traits in horses?	Quantitative	Gene	HIH 1020-3
19	What hormone is produced by the testes?	Testosterone	Repro	HIH 920-1
20	Who is quoted as saying "The outside of the horse is good for the inside of a man?"	Will Rogers	Select	HIH 210-1

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Question Set 18

Q#	Question	Answer	Cat	Ref
1's	What type of open wounds have clean straight edges and often bleed quite freely?	Incisions (incised wounds)	Health	HIH 440-1
2's	What is a zoonotic disease?	one that can be spread from animals to people	Dis	HIH 680-1
3's	In what country did the Hackney originate?	Great Britain	Intro	HIH 158B-1
4's	How many reins are used with a Pelham bit?	Four	Tack	HIH 1100-6
1's	What is the difference between aerobic and anaerobic bacteria?	aerobic bacteria need oxygen to live and anaerobic bacteria do not	Dis	ES 168
2's	What precursor to vitamin A is present in plants?	Beta-carotene	Nutr	ES 123; HIH 750-2
3's	What is the hormone from the anterior pituitary that stimulates follicle growth in ovaries?	Follicle Stimulating Hormone (FSH)	Repro	HIH 910-6
4's	What bone is affected by laminitis?	P3, pedal or coffin	Foot	HIH 505-5
9	What disease is caused by a pituitary gland tumor and may cause an abnormal haircoat or inability to shed?	Cushing's Disease	Dis	ES 181
10	What type of trait ultimately causes death of a horse sometime after birth?	Delayed lethal trait	Gene	HIH 1060-4
11	What grain processing method uses rollers with corrugated surfaces?	Crimping	Nutr	HIH 760-9
12	When bandaging the rear leg, it is important to not put direct pressure over what part of the hock?	Point of the hock	Health	HIH 1160-3
13	What disease is commonly referred to as "founder"?	Laminitis	Dis	HIH 640-1; ES 182
14	How does the cardiovascular system work to regulate body temperature?	It diverts blood toward the periphery (skin surface)	Exer	HIH 830-1
15	How many days does the average estrus, or heat, last?	5 to 7 days, or 3 to 7 days	Repro	HIH 910-5, 930-1
16	What face marking is characterized by a small patch of white hair located on the forehead?	Star	Intro	HIH 140-2, TH 82
17	List two first-aid treatments for overheating or heat stroke.	spray with cool water; ice packs on head and large blood vessels on inside of legs; stand horse in shade or in a cool well-ventilated barn or in front of a fan; a few swallows of cool water every few minutes	Health	HIH 410-1
18	What is the term used to describe the excessive breathing noise associated with upper airway obstruction?	Roaring	Exer	HIH 810-3
19	What sex of horse is not recommended for exhibition by youth or 4-H?	Stallion	Select	HIH 210-4
20	Why should a horse be tied or cross-tied when evaluating it for purchase?	A horse that will not stand tied has limited use and is a risk for injury.	Select	HIH 210-5

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Question Set 19

Q#	Question	Answer	Cat	Ref
1's	As the horse increases in age what physical changes happens to the incisors?	Appear to slant forward and outward	Select	HIH 240-3
2's	What breed name is represented by the initials POA?	Pony of the Americas	Intro	HIH 167B-1
3's	What is the genetic term used to describe paired genes that are identical?	Homozygous	Gene	ES 90; HIH 1020-2
4's	What is the Western version of a Standing Martingale?	Tie-down	Tack	HIH 1100-10
1's	What is the target organ for FSH and LH in stallions?	Testis	Repro	HIH 910-6
2's	At what age do the corner incisors erupt?	4 1/2 years	Health	HIH 405-1
3's	What term describes a mare that has never been bred?	Maiden	Repro	HIH 940-1
4's	What type of horses are mainly affected by threadworms?	young foals	Health	ES 190; HIH 430-3
9	Why would a product consisting of 80% propionic acid and 20% acetic acid be used during the harvesting of hay?	As a preservative or to prevent mold	Nutr	HIH 760-4
10	If green oak is used to build horse stalls, what will happen over time?	It will shrink and twist as it dries.	Facil	HIH 320-5
11	Which of the following is not a muscle found in the horse... The Pectoral, The Deltoid, or the Pastern?	The pastern	Select	HIH 220-3
12	What is a dorsal stripe?	A stripe of color down the center of the back	Intro	ES 37
13	The American Quarter Horse Association recognizes how many body colors?	16	Intro	HIH 168B-1
14	What white leg marking extends from the coronary band to between the fetlock and knee?	Sock or half-stocking	Intro	HIH 140-2, TH 83
15	Ossification of the lateral cartilages that cause calcium to accumulate and harden are called what?	Side Bones	Select	HIH 230-4
16	What body measurement is a "weight tape" based on?	Heart girth	Nutr	HIH 720-1
17	What is another term for a disunited canter?	cross-canter (or cross-lope)	Intro	ES 76
18	What is the purpose of an anti-sweat sheet?	To wick moisture away from the body after a hard workout.	Tack	HIH 1100-12
19	What substance can be applied topically to control hemorrhage?	Silver nitrate	Health	HIH 440-2
20	What is the most common cause of colic?	parasites	Dis	TH 606

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Question Set 20

Q#	Question	Answer	Cat	Ref
1's	The Stomach, the small intestine and the cecum are part of what body system in the	The Digestive System	Nutr	ES 108; HIH 710-2
2's	What provides immune protection until the foal's immune system becomes functional?	Colostrum (immunoglobulins in colostrum)	Repro	HIH 940-3
3's	What are two types of horse trailer hitches?	Gooseneck, Bumper-pull	Tack	HIH 1155-1
4's	A tool used to open nail holes to better accommodate a horseshoe nail	Pritchel	Foot	HIH 530-4
1's	What insect commonly contaminates alfalfa hay?	Blister beetle	Nutr	HIH 760-2
2's	How many incisors do horses have in their upper jaw?	Six	Health	HIH 405-1
3's	What is the length of the incubation period for West Nile Virus?	5 to 15 days	Dis	HIH 665-1
4's	What disease is characterized by failure of the cerebellum to develop properly?	Cerebellar abiotrophy	Gene	HIH 1060-4
9	What two types of bits are combined in a Pelham bit?	Snaffle and curb	Tack	HIH 1100-10
10	What clostridial disease can cause hypersensitivity to light, touch, or sounds and prolapse of the third eyelid?	Tetanus (or "lockjaw")	Dis	HIH 645-1; TH 601
11	The Pony of the Americas Club will only register ponies in what height range?	46-56 inches	Intro	HIH 167B-2, TH 61
12	Equus, the first "true horse", appeared on the earth how long ago?	1 million years	Intro	ES 6, TH 4
13	What is the name of the bacterium that causes tetanus?	Clostridium tetani	Dis	HIH 645-1
14	What tool is used to locate bruised or punctured areas of the foot or to diagnose foot bone diseases or injuries?	Hoof Tester	Foot	HIH 530-3
15	Paired genes that are positioned at the same locus on a chromosome are called what?	Alleles	Gene	ES 90; HIH 1020-1
16	If you are viewing a horse from the profile, you are looking at it from what view?	The side or side view	Select	HIH 220-1
17	What is the function of the infundibulum of the oviduct?	It catches (cradles, envelopes) the ovum when it is released from the ovary.	Repro	HIH 910-3
18	What is defined as a mechanical technique to assist in the medical treatment of foot or limb disease?	Therapeutic shoeing.	Foot	HIH 515-2
19	What is the simple definition of colic?	Abdominal pain	Health	HIH 435-1
20	For optimal effect, treatment for stomach bots should be scheduled at what two times?	late summer (mid-to late summer) and fall (after frost)	Health	ES 188; HIH 430-3

Senior Division

Tie Breaker and Replacement Questions Set 1

Q#	Question	Answer	Cat	Ref
	Why should shavings from black walnut trees not be used for stall bedding?	Black walnut shavings can cause horses to develop laminitis and founder.	Facil	HIH 330-1
	What type of colic is due to overactive muscular contractions of the intestinal tract?	Spasmodic colic	Health	HIH 435-1
	What type of cue is direct rein pressure?	Basic (obvious)	Train	HIH 1240-1,2
	What type of cell division occurs in reproductive organs and produces sex cells?	meiosis	Gene	ES 88
	In pounds, how much manure does a 1,000-pound horse produce per day?	45-50 pounds	Facil	HIH 360-2
	What part of the reproductive tract is kidney bean-shaped and varies in size and texture between breeding and non-breeding seasons?	Ovary	Repro	HIH 910-4
	What reproductive structure in the mare may be the size of a tennis ball during the summer months?	Ovary	Repro	HIH 910-4
	What is the hormone from the anterior pituitary that stimulates follicle growth in ovaries?	Follicle Stimulating Hormone (FSH)	Repro	HIH 910-6
	What device located behind each horse in a trailer, provides a safety mechanism in case a door comes open?	Butt Bar or Butt Chain	Tack	HIH 1155-3
	What is the name of the organ in the mare that contains the eggs?	Ovary	Repro	HIH 910-4
	What can be managed by stockpiling, composting and/or daily land application on a horse farm?	Manure	Facil	HIH 365-1
	Name the two styles of english martingales most commonly used.	Running and Standing	Tack	HIH 1100-10
	What is the term used to describe a reaction that does not use oxygen?	Anaerobic	Exer	HIH 850-1
	How can one determine which parent is carrying a certain gene?	genetic testing	Gene	HIH 1060-6
	Puncture wounds to the feet may cause swelling up to the knee or hock, which can lead to what false assumption?	That the problem is higher up in the leg	Health	HIH 455-3
	What equine sport, known as the "game of kings", utilizes a mallet and ball?	Polo	Intro	HIH 182D-1
	Cribbing and weaving are two vices most frequently associated with what management practice?	Stall confinement	Health	HIH 425-6
	What indicates premature placental separation and is considered an emergency during foaling?	Appearance of a red, velvety bulb (red bag) at the vulva during foaling.	Repro	HIH 940-4
	Name three areas where muscling in the horse can be observed?	1. Arm, 2. Forearm, 3. Shoulder, 4. Stifle, 5. Gaskin, 6. Pectoral Area 7. Rear Quarters	Select	HIH 220-7
	What type of shoes are used on the back feet of reining horses to help the horse execute the sliding stop?	Sliding plates	Foot	HIH 515-3

Senior Division

Tie Breaker and Replacement Questions Set 2

Q#	Question	Answer	Cat	Ref
	Name two types of horses on which wedge-heeled aluminum shoes are commonly used.	1. Hunters, 2. Jumpers, 3. Steep-pasterned pleasure horses	Foot	HIH 515-5
	What is the minimum recommended height for a perimeter pasture fence?	Minimum 5 ft, some situations 6 ft or more with taller breeds	Facil	HIH 350-1
	To minimize stress, how many weeks after weaning should deworming, vaccinations, and halter training be delayed?	3 to 4 weeks	Repro	HIH 950-5
	What organism causes Potomac Horse Fever	Ehrlichia risticii	Dis	HIH 650-1; TH 602
	What measurement is used to estimate body water losses due to performance?	Change in body weight before and after the performance	Exer	HIH 860-2
	What is a dorsal stripe?	A stripe of color down the center of the back	Intro	ES 37
	Other than heredity, what other major factor affects the horse's genetic potential?	Enviromental effects (enviroment)	Gene	HIH 1020-3
	What is the common name for chronic obstructive pulmonary disease?	Heaves	Exer	HIH 810-3
	Name two breeds that most often use a Saddleseat type of saddle.	1. Saddlebreds, 2. Morgan, 3. Tennessee Walking Horse, 4. Arabian	Tack	HIH 1100-1
	What is the normal respiration rate for an adult horse?	8 - 16 breaths per minute	Health	ES 155; TH 594
	What is the name of the procedure of filing the sharp edges or points on a horse's teeth?	Floating	Intro	HIH 110-5
	Name two of the three major muscle types that compose cardiac muscle.	1. Atrial muscle, 2. ventricular muscle, & 3. specialized excitatory and conductive muscle fibers	Exer	HIH 840-1
	Define tidal volume.	The amount of air inspired and expired during a normal breath.	Exer	HIH 895-1
	What provides immune protection until the foal's immune system becomes functional?	Colostrum (immunoglobulins in colostrum)	Repro	HIH 940-3
	Name three materials commonly used for stall bedding.	1. Straw, 2. wood shavings, 3. sawdust, 4. ground corncobs, 5. recycled newspaper	Facil	HIH 330-1,2
	A condition where the lower jaw is shorter than the upper jaw making the incisor teeth improperly aligned is called?	Parrot Mouth	Gene	HIH 1060-5
	What procedure is used to visualize or examine the chromosomes under a microscope?	Karyotyping	Gene	HIH 1060-1
	What genetic term is used for the outward appearance or physical characteristics that can be seen?	Phenotype	Gene	ES 91; HIH 1060-2
	What is the term for mare that has never had a foal?	Maiden	Repro	HIH 782-1
	What substance in the mouth begins the process of digestion?	Saliva (amylase)	Nutr	HIH 710-1

Senior Division

Tie Breaker and Replacement Questions Set 3

Q#	Question	Answer	Cat	Ref
	What are the two stages of the mare's estrous cycle?	Estrus and Diestrus	Repro	HIH 910-5
	What is the fluid-filled structure on the ovary that matures to release an ova?	Follicle	Repro	HIH 910-4
	What is the minimum height for a ceiling in an arena intended to be used for hunter/jumpers?	16 feet	Facil	HIH 320-7
	During estrus, what hormone influences the cervix?	Estrogen	Repro	HIH 910-3
	Horse height is measured in what unit?	Hands	Intro	ES 27, TH 16
	What is the bedding of choice for foaling stalls?	Straw	Facil	HIH 330-1
	What is the term for an immature female horse?	Filly	Intro	HIH 110-5
	What is freestyle reining?	Reining manuevers set to music	Intro	HIH 183D-1
	What farrier tool is used to remove shoes, nail stubs and improperly driven nails?	Pinchers, or Pull offs	Foot	HIH 530-1
	How long does diestrus last?	Approximately 14 to 16 days	Repro	HIH 910-5
	What is the universal birthdate for many horse breed registries?	January 1 of each year	Repro	HIH 910-5
	What two types of bits are combined in a Pelham bit?	Snaffle and curb	Tack	HIH 1100-10
	Standardbreds can trot or pace at what speed?	30 mph	Intro	ES 81; HIH 171B-1
	What horse sport is known as "gymnastics on horseback"?	Vaulting	Intro	HIH 185D-1
	Name two internal parasites that can lead to colic.	large roundworms (ascarids); tapeworms; strongyles (large and/or small); bots	Health	ES 188,189; HIH 435-3
	Mottled skin, vertically striped hooves, and visible white sclera are characteristics of what breed?	Appaloosa	Intro	HIH 152B-2
	When do the intermediate permanent incisors erupt?	3 1/2 years	Select	HIH 240-2
	What is the convex side of the ovary called?	Hilus	Repro	HIH 910-4
	As a general rule, how do you determine the height of fences used around small paddocks, corrals and stallion pens?	The top of the fence should be at eye level with the horse's head in a natural upright position	Facil	HIH 350-1
	At what age does a "smooth mouth" typically appear?	11 years old	Select	HIH 240-3

Senior Division

Tie Breaker and Replacement Questions Set 4

Q#	Question	Answer	Cat	Ref
	Name the fat-soluble vitamins.	A, D, E, K	Nutr	ES 111; HIH 710-2, 760-10
	What breed registry is represented by the initials ASHA?	American Saddlebred Horse Association	Intro	HIH 169B-1
	List two first-aid treatments for overheating or heat stroke.	spray with cool water; ice packs on head and large blood vessels on inside of legs; stand horse in shade or in a cool well-ventilated barn or in front of a fan; a few swallows of cool water every few minutes	Health	HIH 410-1
	What type of horses are mainly affected by threadworms?	young foals	Health	ES 190; HIH 430-3
	What should never be done to the umbilical cord of the newborn foal?	It should never be cut	Repro	HIH 950-1
	What is the primary objective of most grain processing methods?	To improve availability/digestability of starch	Nutr	HIH 760-9
	Which breed of horse is primarily associated with hyperkalemic periodic paralysis?	Quarter Horse	Gene	ES 98; HIH 1060-6
	Blood flows through a series of blood vessels known as the vascular system. There are five types of these blood vessels, name two.	1. Arteries, 2. Arterioles, 3. Capillaries, 4. Venules, 5. Veins	Exer	HIH 830-1
	What type of chromosomes are referred to as "X" and "Y"?	Sex chromosomes	Gene	ES 91; HIH 1060-1
	Of types of behavior reinforcers, which come natural to the horse?	Primary	Train	HIH 1240-2
	What is the technical term for heaves?	Chronic obstructive pulmonary disease (COPD)	Exer	HIH 810-3
	All open wounds are contaminated by what?	Bacteria	Health	HIH 440-2
	What nutritional practice is recommended for foals when they are 30 to 60 days old?	Creep feeding	Repro	HIH 950-5
	What score does each cutting contestant start with from each judge?	70	Intro	HIH 180D-1
	How many different amino acids exist in nature?	22	Nutr	ES 117
	What white leg marking extends from the coronary band to the knee of the horse?	Stocking	Intro	HIH 140-2, TH 83
	What lameness problem may result from salmonellosis?	laminitis	Dis	HIH 660-2
	What is the term for the condition resulting from the presence of organisms in the body that cause health issues or disease?	infection	Dis	ES 167
	Which two types of flies feed by piercing the horse's skin with their bayonet-like mouth parts?	Horse and deer flies	Health	HIH 415-2
	What vitamin is necessary for the production of blood clotting factors?	vitamin K	Nutr	ES 125

Senior Division

Tie Breaker and Replacement Questions Set 5

Q#	Question	Answer	Cat	Ref
	What ovarian structure develops after ovulation that is the precursor to the corpus luteum?	Corpus Hemorrhagicum (CH)	Repro	HIH 910-6
	What is the general term for a substance that is produced by one tissue and effects target tissues?	Hormone	Repro	HIH 910-5
	What does ATP stand for?	Adenosine triphosphate	Exer	HIH 840-2
	Name one form in which dietary energy processed by the body may be stored.	Fat, Glycogen	Exer	HIH 820-1
	Name two of the four body colors recognized by the International Buckskin Horse Association.	Buckskin, Dun, Red Dun, and Grulla	Intro	HIH 154B-1
	What type of cinch is used to secure the entire load when packing?	Lash Cinch	Tack	HIH 1125-5
	What are three basic types of bits?	1. Snaffle, 2. Curb (leverage), 3. Hackamore	Tack	HIH 1100-8
	What disease do the initials PHF stand for?	Potomac Horse Fever	Dis	HIH 650-1
	To alleviate constipation, what should be administered to a newborn foal?	enema	Repro	HIH 950-2
	What organ is responsible for pumping the blood throughout the horse's body?	The Heart	Exer	HIH 830-1
	A horse cannot use its binocular vision to see objects closer than how far from it?	4 to 6 feet	Train	ES 67; HIH 1220-1
	What organism is responsible for transmitting the bacteria that causes Lyme disease to horses or other animals?	Ticks (Ixodes ticks)	Dis	HIH 655-1
	What type of shoe distributes the weight across the hoof wall and the frog?	Heartbar Shoe	Foot	HIH 515-4
	What are hair like projections found in the oviduct and that are responsible for transportation of sperm and ovum?	Cilia	Repro	HIH 910-3
	How many permanent teeth do geldings most commonly have?	40 (or 42 if including wolf teeth)	Select	HIH 240-3
	What tool provides the best method of diagnosing navicular disease?	Hoof testers	Foot	HIH 540-3
	What is the primary function of the scrotum?	Maintaining proper temperature for sperm production	Repro	HIH 920-4
	What is the genetic term used to describe paired genes that are identical?	Homozygous	Gene	ES 90; HIH 1020-2
	What process protects the newborn foal against diseases by absorption of antibodies in colostrum?	Passive transfer of immunity	Repro	HIH 950-2
	What viral disease of horses and other livestock causes blister-like lesions in the mouth and on the tongue, lips, nostrils, hooves, and teats that can look like foot and mouth disease symptoms?	vesicular stomatitis	Dis	HIH 695-1; ES 179

Bonus Questions- Senior Division

- Q. When viewing a horse from the front, what characteristics should be evaluated?
A. width of chest; musculing and structure of the front leg and hoof; the head and neck.
- Q. Name three results of tall fescue toxicosis.
A. Thickened placentas; prolonged gestation; delayed foaling; weak or stillborn foals; dystocia (difficult birth); agalactia (lack of milk production)
- Q. Name two of the three methods of conditioning that use aversive stimuli.
A. Punishment; Escape; Avoidance
- Q. What is the normal karyotype designation for a male horse?
A. 64,XY
- Q. Name three factors that are fundamentals to the psychology of horse training.
A. Stimuli; Response; Reinforcement
- Q. Name three clinical signs of tetanus.
A. hyper-sensitive to light, touch, or sounds; prolapse of third eyelid; gait stiffness; neck stiffness; fever; elevation in heart and respiratory rates; erect ears and tail; locked jaw; flared nostrils; muscle spasms; sweating; colic; "sawhorse" stance
- Q. Name three minerals that play important roles in proper bone growth and development.
A. calcium; phosphorous; copper; zinc
- Q. Name three of the four most significant internal parasites infecting horses.
A. Stronglyes; ascarids; pinworms; bots
- Q. Name five types of grain processing.
A. Grinding; rolling; crimping; roasting; pelleting; soaking; steam rolling; extrusion (extruded)
- Q. What are the three segments of the epididymis?
A. Head (caput); Body (corpus); Tail (cauda)
- Q. Name three factors that may cause a mare to be barren.
A. Old age; poor breeding conformation; uterine infection; improper nutrition; poor body condition
- Q. Name five of the different species of ticks.
A. Lone Star; Cayenne; Gulf Coast; Winter; American dog; Rocky Mountain wood; Tropical horse; Black-legged (Ixodes); Spinose
- Q. When developing physical facilities, there are several critical factors related to physical environment that should be considered. Name 4 of these factors.
A. Area (space); social and legal conditions; water quality; drainage; image; economic feasibility
- Q. Blood is composed of three cellular elements suspended in a liquid known as plasma. Name two of these elements.
A. Red blood cells (erythrocytes); White blood cells (leukocytes); Platelets
- Q. Name three characteristics of the frame overo coat color pattern.
A. Dark feet; dark lower legs; white on the face; blue eyes; white spots in the middle of the body and neck; spots rarely cross the topline; usually arranged horizontally
- Q. Name three of the four distinguishing characteristics of the Appaloosa breed.
A. Spotted coat ptern, mottled skin, visible white sclera, vertically striped hooves
- Q. Name four internal organs that are affected by antibodies attacking the EIA virus.
A. kidneys, liver, spleen, lymph nodes, bone marrow, brain
- Q. What is the term for the network of arteries and veins responsible for heat exchange in the testes?
A. Pampiniform plexus
- Q. What is the technical term for destruction of the corpus luteum by prostaglandin?
A. Luteolysis
- Q. When viewing a horse from behind, an imaginary line should bisect what three points when dropped from the point of the buttocks to the ground?
A. Gaskin; hock; hoof

Bonus Questions- Senior Division

- Q. Name three stress situations that can trigger EHV-1 or EHV-4 symptoms in horses that are latent carriers?
- A. Prolonged transportation, weaning, castration, mixing of unfamiliar horses, presence of other disease conditions
- Q. There are three basic types of muscle fibers. Name two.
- A. Type I; Type IIA; Type IIB; Type IIC
- Q. What structures are included in the foregut of the horse?
- A. Mouth; esophagus; stomach; small intestine
- Q. Name three ways in which Equine Viral Arteritis may be spread.
- A. Through airborne respiratory tract secretions, sexual (venereal) transmission by infected stallions, indirect contact with contaminated objects, vehicles used for transportation
- Q. List five general fire safety precautions for stables.
- A. No smoking in any barn, hay/bedding storage area, or tack room; vacuum cobwebs and remove dust from light fixtures, outlet covers, switches, and panel boxes; Store flammable substances somewhere other than barn; Store vehicles and tractors away from barn
- Q. Name 3 problems associated with maintaining clay floors.
- A. hard to find; Pockets and holes develop; Sanitation; Keeping level Keeping dry; Odor
- Q. Name three features that are important to consider when selecting a vehicle to pull a horse trailer.
- A. Truck size; Engine size; Gear ratio; Brake system; Electrical system; Type of hitch; Correct hitch ball size; Safety
- Q. To learn more about water quality guidelines for your farm, where should you go? Name three places.
- A. Local Conservation District office; Cooperative Extension office; State Water Quality office; County Zoning office; County Health office
- Q. Name three accessory organs that aid in digestion that are not commonly considered part of the digestive tract.
- A. Teeth; salivary glands; liver; pancreas
- Q. List three classifications of broodmares.
- A. Open/Barren; Maiden; Pregnant; Wet (Lactating)
- Q. Name three electrolytes that are lost in sweat.
- A. Sodium; chloride; potassium; calcium
- Q. What are the three main goals in wound treatment?
- A. Control hemorrhage (bleeding); Turn the contaminated wound into a clean one; Promote rapid wound healing
- Q. Compared to milk, what are two qualities different in colostrum?
- A. higher energy; higher protein; higher minerals and vitamin A; contains immunoglobulins (antibodies); acts as a laxative; secreted only during the first 24 to 48 hours of lactation
- Q. Name three ways in which working horses cool themselves.
- A. Sweating; Radiation; Conduction; Convection; Respiratory evaporation
- Q. Name two systems where smooth muscle is found.
- A. Digestive system; respiratory system; circulatory system; urogenital system
- Q. Name four materials commonly used in the construction of stall floors.
- A. Clay; clay and sand mix; limestone dust; wood; concrete; asphalt; rubber floor mats
- Q. What is the difference between primary and secondary reinforcers of behavior?
- A. Primary reinforcers are naturally appreciated; Secondary reinforcers are learned over a period of time
- Q. What are two characteristics of horses affected with cytogenetic abnormalities?
- A. Small and weak at birth; small at maturity; ovaries are small and hard; ovaries fail to develop eggs; uterus and cervix are small and flaccid; males are sterile
- Q. Many factors can influence digestibility of nutrients. Name four of these factors.
- A. Type or source of feedstuff; Level of maturity; Method of processing; Quantity fed; Associative effects; Frequency of feeding; Rate of passage; Compounds that interfere with digestibility; Individual differences

Bonus Questions- Senior Division

- Q. What are the four major factors used to estimate the age of horses by the appearance of their teeth?
A. Occurrence of permanent teeth; disappearance of cups; angle of incidence; shape of the surface of permanent teeth
- Q. There are several practices used to improve water quality on horse farms. Name four.
A. Reduce runoff; Store manure 50-100 ft from waterways and 100 ft from drinking water; Store manure on cement or compacted soil; Cover manure to reduce contaminated runoff; Compost manure and stall waste; Manage pastures to maintain grass
- Q. What are the four stages in the life cycle of a fly?
A. Egg; larva; pupa; adult
- Q. Name 3 important elements related to the natural environment to consider when developing facilities.
A. Topography; drainage; prevailing winds; solar radiation; precipitation; vegetation; soil characteristics
- Q. Name the three parts of the vulva.
A. Labia; Clitoris; vestibule
- Q. List three symptoms of botulism in adult horses.
A. muscular paralysis; food accumulation in mouth; flaccid tongue; drooling; shuffling or stilted gait; dragging toes; standing with head and neck hanging down
- Q. Name four clinical signs of Equine Viral Arteritis
A. Respiratory illness, peripheral edema, abortion, fever, depression, swelling above and around eyes, loss of appetite, skin rash, nasal/ocular discharge, swelling of scrotum and prepuce, swelling of mammary glands, conjunctivitis, colic, diarrhea
- Q. Name 4 types of pack saddle hitches.
A. Single-diamond; Double-diamond; Half diamond; Squaw; Arizona
- Q. What are four characteristics of an attack caused by hyperkalemic periodic paralysis?
A. Muscles tremors; weakness; disorientation; convulsions
- Q. The cardiovascular system of the horse has three main parts. Name two of them.
A. Blood; blood vessels; heart
- Q. Name three of the five parts of the mares reproductive system.
A. Vulva; vagina; cervix; uterus; oviduct; ovary
- Q. Name the three fittings on an English Saddle.
A. Stirrup Leathers; Stirrup Irons; Girth
- Q. What are two physical signs a mare will display to show rejection of a stallion's presence when not in estrus?
A. Ears pinned; kicking; biting; pawing; lack of interest
- Q. Medical bandages are comprised of three layers. Name the layers and their functions.
A. Primary - the layer that has contact with the wound; Secondary - absorbs exudates from the wound and/or provides padding; Tertiary or Outer - secures and protects the other layers of the bandage
- Q. Why do sharp enamel points develop on cheek teeth?
A. lower jaw is more narrow than the upper jaw and combined with lateral (sideways) grinding action causes formation of sharp enamel points
- Q. What are the specific names of each pair of incisors, from middle to outside?
A. Centers; Intermediates; Corners
- Q. Name three examples of electrolytes.
A. Sodium; Potassium; chloride; magnesium; calcium
- Q. One method of efficiently managing broodmares is to divide them into three groups. Name these
A. Open; Pregnant (gestating); Lactating
- Q. Name three characteristics that are different in permanent teeth than in temporary teeth.
A. Permanent teeth are: Larger and longer; broader neck area between root and crown; Have parallel grooves and ridges on the face of the incisor; darker; flatter
- Q. Name one of the hormones commonly used to manipulate the estrous cycle.
A. Prostaglandin (Lutalyse); human Chorionic Gonadotropin (hCG) progesterone (Regumate)
- Q. What are the names of the three layers of the uterus?
A. Serous layer; myometrium; endometrium

Bonus Questions- Senior Division

- Q. List two possible causes of Developmental Orthopedic Disease in foals.
A. Genetics; nutrition; injury; endocrine (hormonal) causes; excessive exercise of stabled foals
- Q. List three commonly described symptoms of Lyme disease in horses.
A. lameness; arthritis (joint disease); neurologic disease; uveitis; dermatitis; encephalitis; fever; muscle soreness; limb swelling; heart problems; kidney problems
- Q. A horse that is base narrow is predisposed to what three undesirable conditions?
A. Ringbone; side bone; heel bruising
- Q. Name two classes of broad-spectrum chemical dewormers.
A. Avermectins; Organophosphates; Benzimidazoles; Phenylguanidines; Pyrimidines
- Q. Name three characteristics of the tobiano coat color pattern.
A. Usually have four white feet; white lower legs; little white on head; white spots on body; usually cross the topline; usually seems to be arranged vertically
- Q. List four genetic disorders or diseases.
A. (Severe) Combined immunodeficiency; hyperkalemic periodic paralysis; myotonic dystrophy; hemophilia A; hereditary multiple exostosis; parrot mouth; lethal white foal syndrome; laryngeal hemiplegia; cerebellar ataxia; equine night blindness; aniridia; etc
- Q. List three treatments for acute laminitis.
A. remove cause; increase blood flow to laminae; anticoagulation therapy; anti-inflammatory drugs; hose or ice legs/hooves; keep horse confined; deep bedding/sand; remove hay/feed
- Q. Name three hormones involved in the control of reproduction in the stallion
A. Testosterone; Follicle Stimulating Hormone(FSH); Luteinizing Hormone (LH); Gonadotropin Releasing Hormone (GnRH)
- Q. Name three practices used in renovating grass pastures.
A. Introducing legumes into existing pasture; Weed control; Soil testing; Liming; Fertilizing; Grazing management.
- Q. List two orthopedic conditions associated with Developmental Orthopedic Disease in foals.
A. Osteochondrosis; osteochondritis dissecans; subchondral bone cyst; physitis; angular limb deformities; flexural deformities; cervical vertebral malformation
- Q. Why should mares be moved to the environment where they will foal at approximately 30 days before foaling?
A. allows mare to produce antibodies against microorganisms in that environment and pass those antibodies to foal through colostrum
- Q. Name four major vaccinations should typically be administered to horses that are traveling.
A. Encephalomyelitis (Eastern and Western); Tetanus; Influenza; Rhinopneumonitis; Potomac Horse Fever; Rabies
- Q. A brownish-green color in the urine is an indicator of what problem?
A. Jaundice and liver problems
- Q. Name the three main salivary glands.
A. Parotid; Submaxillary (mandibular); Sublingual
- Q. Name three types of gene action that affect qualitative traits.
A. Dominance; co-dominance; partial dominance
- Q. Name the four major parts of the horse's hindgut.
A. cecum; large colon; small colon; rectum
- Q. What 3 factors can affect AVA's (arterio venous anastomoses) in the hoof and possibly lead to laminitis and founder.
A. Temperature; Pressure; Trauma
- Q. Name the five different metals used to make bits.
A. Stainless Steel; German Silver; Solid Nickel; Copper; Aluminum
- Q. The physiological systems of a horse that affect performance can be divided into six broad categories. Name two.
A. Cardiovascular system; respiratory system; muscular system; nutrition; hematology; biomechanics; conformation

Bonus Questions- Senior Division

- Q. List four clinical signs of EPM.
A. weakness; stumbling; malposition of one or more limbs; muscle atrophy; spinal ataxia or "wobbling"; head tilt or asymmetry of the face; inability to stand; lameness traceable to another disease; seizures; upper airway dysfunction
- Q. Name three behavioral signs of estrus in the mare.
A. Urination stance (squatting with legs spread; Raised tail; Leaning into stallion; Urinating frequently; Winking vulva
- Q. What is an oral larvacide?
A. insecticide designed to be put into horse feed that passes through the horse but remains in the feces to kill developing fly maggots
- Q. Name three coat color patterns that are a result of the Leopard complex.
A. Mottled; varnish; Blanket with spots; blanket; frost; leopard; few spot
- Q. What are the three forms of botulism?
A. "Shaker foal syndrome"; Forage poisoning; Wound botulism
- Q. What is the name for the highly elastic wing-like structures attached to the sides, or wings of the coffin bone?
A. Lateral Cartilages
- Q. What is the normal karyotype designation for a female horse?
A. 64,XX
- Q. Excluding summer annuals, name three grasses commonly used as pasture or hay for horses.
A. Bahagrass; Bermudagrass; Kentucky Bluegrass; Orchardgrass; Smooth broomgrass; Fescue; Timothy; Canarygrass; Redtop
- Q. Name the three fittings that are generally not included in the price of a new English Saddle.
A. Stirrup; Leathers; Stirrup Irons; Girth
- Q. EIPH is rarely seen as a consequence of mild or moderate exercise, but occurs quite frequently in what three breeds of horses?
A. Thoroughbreds, Quarter Horses, and Standardbreds