Part A – Agronomics 10 questions

- 1. No notes, books, or other printed or electronic information sources may be used to answer the questions.
- 2. Calculators may be used for any question that involves mathematics.
- 3. Mathematically derived answers may differ slightly due to rounding.
- 4. Answer each question by placing a(n) "A", "B", "C", or "D" in the box marked "Answer".
- 5. There is only one correct answer for each question.

Competency Area 1. AGRONOMICS (10 questions)

1. The texture of a soil can be determined quantitatively in the laboratory by means of:		
a. b. c.	chemical analysis mechanical analysis salt concentration	
d.	electrical conductivity	Answer:
2. A 100 pound bag of fertilizer with an analysis of 18-5-9 would contain which of the following:		
a. b. c.	5 pounds of actual phosphorus 5 pounds of available phosphate 9 pounds of potassium	
d.	18 pounds of urea	Answer:
3. Cation Exchange Capacity (CEC) reflects the ability of a soil to:		
b.	retain positively charged ions retain negatively charged nutrient ions resist compaction under traffic	
	hold water	Answer:
4. A turfgrass blend consists of:		
	2 or more different species only certified, weed free turfgrass varieties 2 or more varieties of the same species	
c. d.	Insect and disease resistant species and varieties	Answer:
5. If there are 29.6 milliliters per liquid ounce and 128 ounces in one gallon, how many milliliters are there in one gallon of liquid?		
	approximately 1,895 approximately 3,790	
c. d.	11 ,	Answer:

	oot zone material that contains a higher than recommended percentage by might require which of the following to allow for reasonable draina	
a. b. c. d.	be constructed using a shallower than normal root zone depth be constructed using a deeper than normal root zone depth be mixed with extra organic matter to encourage drainage be built to normal depth because drainage will improve as turf roots	begin growing Answer:
7. An i	ron deficiency may result in:	
c.	better traffic tolerance increased shoot growth increased nitrogen fertilizer requirement chlorosis (yellowing) of the turf	Answer:
8. Pere	ennial ryegrass plants do not produce:	
a. b. c. d.	roots tillers stolons shoots	Answer:
9. Pho	tosynthesis rate in turfgrass plants:	
a. b. c. d.	increases as the amount of shade increases decreases as the amount of shade increases is highest just before sunrise is not affected by the amount of sunlight	Answer:
acre to	ou wish to apply a preemergent herbicide at a rate of 1.5 pounds active a soccer field with the dimension 120 yards by 80 yards. How many ergent product will you need to apply? E: there are 43,560 square feet in one acre)	
a. b. c. d.	approximately 18 pounds of preemergent herbicide approximately 44 pounds of preemergent herbicide approximately 100 pounds of preemergent herbicide approximately 200 pounds of preemergent herbicide	Answer:

Part B – Pest Management 5 questions

- 1. No notes, books, or other printed or electronic information sources may be used to answer the questions.
- 2. Calculators may be used for any question that involves mathematics.
- 3. Mathematically derived answers may differ slightly due to rounding.
- 4. Answer each question by placing a(n) "A", "B", "C", or "D" in the box marked "Answer".
- 5. There is only one correct answer for each question.

Competency Area II. PEST MANAGEMENT (5 questions)

1. In order to maximize the effectiveness of an insecticide for the control of sod webworms or cutworms, the preferred time of day for insecticide application is:		
a. b. c.	late afternoon or evening early morning mid-day	
d.	sunrise	Answer:
2. An h	nerbicide with the label designation 2EC:	
a. b.	b. has an active ingredient concentration of 2%c. contains 2 pounds of active ingredient per gallon of formulated product	
c. d.		
u.	weighs 2 pounds per gunon	Answer:
3. A nitrogen deficiency would tend to increase the incidence and/or severity of which of the following turfgrass diseases?		
a. b.	pythium nematodes	
c.	dollar spot	
d.	brown patch	Answer:
4. Which of the following lists pesticide label signal words in INCREASING order of toxicity?		
a.	Warning, Caution, Danger	
b. c.	Danger, Warning, Caution Caution, Danger, Warning	
d.	Caution, Warning, Danger	Answer:
5. As part of an IPM program to manage weeds in a park, a cultural practice that may be particularly effective in reducing the aggressiveness of clover population would be:		
a. b.	to increase nitrogen application rates to decrease nitrogen application rates	
c.	to increase the frequency of core cultivation	
d.	to use deep-tine cultivation at least once per season	Answer:

Part C – Administration 5 questions

- 1. No notes, books, or other printed or electronic information sources may be used to answer the questions.
- 2. Calculators may be used for any question that involves mathematics.
- 3. Mathematically derived answers may differ slightly due to rounding.
- 4. Answer each question by placing a(n) "A", "B", "C", or "D" in the box marked "Answer".
- 5. There is only one correct answer for each question.

Competency Area III. ADMINISTRATION (5 questions)

1. The tool to establish and define financial goals in a maintenance program is the:

		Answer:
2. An e	example of a capital equipment expenditure is:	
b. c.	grass seed purchase sub-contractor fees equipment rental tractor purchase	Answer:
3. The acronym "OSHA" stands for:		
a. b. c. d.	Only Safe Handling Allowed Occupational Safety and Health Administration Organic Safety and Health Association Organization of States Health Administration	Answer:
4. The best way to find out if an employee understood your directions is to:		
b. c.	wait and see give it to them in writing ask a question look at them when you talk	Answer:
5. Providing feedback is one of the most important tools for improving performance. Which of the following is not true about providing feedback?		
a. b. c. d.	tensions throughout the year b. Supportive feedback is used to reinforce actions and behaviors that are desirable	
		Allswel.

Part D – Sports Specific 10 questions

- 1. No notes, books, or other printed or electronic information sources may be used to answer the questions.
- 2. Calculators may be used for any question that involves mathematics.
- 3. Mathematically derived answers may differ slightly due to rounding.
- 4. Answer each question by placing a(n) "A", "B", "C", or "D" in the box marked "Answer".
- 5. There is only one correct answer for each question.

Competency Area IV. SPORTS SPECIFIC (10 questions)

1 Voya	efield has been calcuted for the above in anothin account game but the cool	ia harras ana
1. Your field has been selected for the championship soccer game, but the goalie boxes are completely worn out and uneven. What is the best strategy to have the field ready for play in two weeks?		
	deep tine aeration and heavy top dressing reseed and water heavily	
	use thick cut (2-inch) sod to repair verticut to create quality bluegrass runners	Answer:
2. Which one of the following associations administers the rules, including field layout, for high school sports?		
a.	Sports Turf Managers Association	
	National High School Rules Committee National Federation of State High School Associations None of the Above	Answer:
3. The most appropriate paint to use on a natural grass field is:		
	latex oil-based	
c. d.	enamel all of the above can be used	Answer:
4. Many baseball infields have a $1/2$ % slope from the pitchers mound to the skinned areas, the reason for this is that:		
	ball bounce will be more predictable and uniform on the sloped surface it aids in drainage of the infield grass	2
	more foul balls are hit on a sloped surface to discourage batters from bunting the ball	Answer:
5. Baseball and softball skin areas are very critical parts of the playing field. What is the uniform standard that has been adopted by professional baseball for infield skin mixtures?		
a. b. c. d.	60% sand and 40% clay 60% sand, 20% silt and 20% clay 50% native soil and 50% calcined clay no organization has adopted a uniform standard for the composition of	skin areas on
u.	baseball and softball fields	Answer:

6. Worn areas on sand-based fields that are resodded with native-soil sod often develop this problem, especially when thin-cut sod is used:		
	excessively rapid drying of the sodded area infestations of white grub larvae	
c. d.	a shear plane at the interface between the sod and underlying soil annual bluegrass infestations	Answer:
7. When using a leveling drag on the skin part of the infield, it is important to:		
	drag as closed to the adjacent turf as possible avoid dragging near turf by 12 inches or so	
c. d.	drag infield soil up to the turf so that it is level with the grass drag only in one direction	Answer:
8. Plant growth regulators (like Primo or trinexapac-ethyl and similar types):		
	are not labeled for use on athletic fields will severely discolor sports turf, even at low use rates can be mixed with marking paint to lengthen the life of painted lines	
d.	should be applied at the same time as fertilizer is put down	Answer:
9. From a player's perspective, the safest natural grass athletic field will have:		
	very moist soil at game time slightly moist soil at game time	
c. d.	very dry soil at game time soil moisture level is irrelevant to player safety	Answer:
10. A professional approach to reducing the negative effects of marching band traffic on your football field might involve:		
a.	informing the athletic director, coaches and band director that the band can never practice on the field and may only march on it during game day	
b.	painting a practice "field" for the band on a convenient lawn area or parking lot and permitting one practice per week on the game field if conditions allow	
c. d.	convincing the athletic director and coaches that the band is unimportal ignoring the band director and fertilizing the "marching lines" heavily band practice	_