

2009 Area Exam



Instructions: READ EACH MULTIPLE-CHOICE STATEMENT CAREFULLY AND THEN MARK THE ANSWER ON THE SCORE SHEET THAT CORRESPONDS TO THE BEST ANSWER. GOOD LUCK!!

Questions 1 - 4. Please match the following on the soybean picture (each term is only used once):

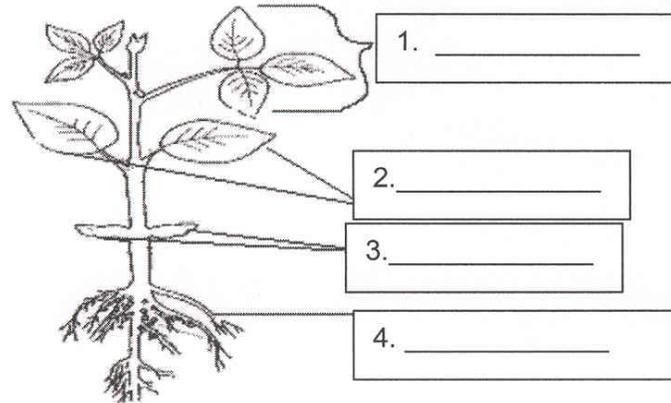
A. lateral root B. stipules C. trifoliolate leaf D. cotyledons E. unifoliolate leaf

1. C

2. E

3. D

4. A



5. Which of these is an advantage of using no-till?

- A. decreased herbicide use
- B. better insect control
- C. better disease control
- D. decreased fuel consumption**

6. Nutrient deficiency symptoms occurring in the upper leaves of the corn plant most likely indicates a deficiency of

- A. nitrogen
- B. magnesium
- C. potassium
- D. manganese**

7. What type of nozzle should a farmer use if he is wanting to apply a circular spray pattern of an insecticide or fungicide on his field crop?

- A. Broadcast
- B. Flooding flat
- C. Hollow cone**
- D. Flat fan

8. Nitrogen fixing bacteria on legume plants are called .

- A. Rhizoctonia
- B. Rhizomes
- C. Rhizobia**
- D. N-Serve

9. When selecting a wheat variety, _____ is not taken into consideration.

- A. drought resistance
- B. disease resistance
- C. winter hardiness
- D. Hessian fly resistance**

10. One bushel of soybeans at 11% moisture weighs approximately how much?
A. <56.00 B. 56.4 **C. 58.65** D. 62.14 E. >64.00
11. Of the following types of crop residue, which is least beneficial in protecting the soil from soil erosion?
A. wheat
B. corn
C. soybean
D. hay
12. Legumes are _____ and have _____ root systems.
A. dicots, tap B. monocots, fibrous C. dicots, fibrous D. monocots, tap
13. When looking at Yellow foxtail and Green foxtail, the best way to tell them apart is that Yellow foxtail has _____ .
A. long hairs near the base of the blade and a flat sheath
B. a tall membranous ligule
C. long clasping auricles that wrap around the stem
D. a triangular stem in cross-section and a short sheath
14. Durum wheat is most likely to be found in your _____ .
A. cake
B. spaghetti
C. bread
D. wheat bread
15. CAUTION, WARNING, and DANGER are _____ and always found on the herbicide label.
A. toxicity levels B. signal words C. formulations D. modes of action **E. A & B**
16. Roots are different from stems as roots do **not** have (never have)
A. nodes and internodes B. xylem C. phloem D. rhizobia
17. What is the nutrient that is supplied by dolomitic limestone that is not provided by calcitic limestone?
A. iron B. manganese C. nitrogen **D. magnesium** E. plutonium
18. In the summer, day length is _____ in Northern Indiana than in Southern Indiana.
A. longer B. shorter C. the same length
19. If you are calibrating your corn planter and desire 30,000 kernels per acre in 30 inch rows, the spacing between kernels in the row should be
A. 7" B. 8" C. 7.5" D. 8.5" E. 9"
20. A herbicide recommended for _____ application is least likely to interfere with planting.
A. preemergent **B. postemergent** C. preplant incorporated

21. Rhizobium nodules on legumes are healthy and active when _____ in color.
 A. yellow **B. pink (steak colored)** C. green D. brown (tan)
22. The major difference between stems of sedges and grasses is
 A. grass stems do not have internodes
 *B. sedge stems are triangular in cross section
 C. leaves do not originate from nodes in grass stems
 D. sedge stems are not green
23. Which of the following characteristics are not useful in seed identification?
A. tassel size
 B. hilum color
 C. groove size
 D. seed coat color
 E. brush size
24. The GDD maturity rating system for corn is based on the
A days between planting and maturity
 B. number of growing degree days accumulated after planting
 C. days between emergence and tasseling
 D. Sign of the moon planting
25. From harvest to planting (i.e. over wintering), how much of the original residue cover can be expected to remain?
 A. 5-15% B. 15-25% C. 50% **D. 75-85%** E. 95-100%
26. No-till crop production acreage has been _____ in comparison to plowed acreage.
 A. decreasing **B. increasing** C. steady
27. A corn plant is at the V6 growth stage. The "6" indicates that _____ using the leaf collar method. This method is preferred since new hybrids maintain leaves that point skyward allowing more efficient use of sunlight.
 A. the plant has 6 more leaves to become exposed prior to physiological maturity
 B. the plant has 6 more leaves to become exposed prior to tassel
 C. there are 6 leaves that have tips pointing towards the ground
D. the collar of the sixth leaf is exposed
 E. the sixth leaf of the plant points skyward and does not have an exposed collar
28. Pythium is a problem that is most likely to occur in _____ fields.
 A. Corn B. Rye **C. Soybean** D. none of these
29. When is armyworm a problem in corn?
 A. April, May
B. May, June, July
 C. June, July
 D. June, July, and August
 E. armyworm is not a corn pest

30. In corn development what unit is a way of measuring how much heat has accumulated over a 24 hour period for corn development?
 A. GPA B. photoperiod C. cytokinin **D. GDD**
31. Johnsongrass and Sudangrass seeds may be most easily differentiated on the basis of
A. rachilla
 B. seed size
 C. seed shape
 D. presence or absence of brush
 E. seed color and size
- 32-35. Match the following specialized stems to the function that they perform. Each letter may be used only once.
32. Tuber (**C**) A. propagation above ground (strawberry)
33. Rhizome (**B**) B. propagation below ground (Johnsongrass)
34. Stolon (**A**) C. storage and propagation underground (potato)
35. Stalk (**D**) D. storage, strength, support (corn)
36. Of the following, which flower structure is not part of the female anatomy?
A. anther B. stigma C. style D. ovary E. ovule
37. The disease Gray Leaf Spot likes which of the following environments?
 A. cool, dry B. warm, dry C. cool, wet **D. warm, wet**
38. A sunken, brick red lesion on a soybean root or lower stem near the soil surface is the disease
 A. charcoal rot B. phytophthora C. brown stem rot **D. rhizoctonia**
39. Farmer Smith just had a hailstorm hit his soybean field. What minimum population must remain (survive) in order to still have a potential yield of 90%?
 A. 10,000 B. 20,000 **C. 60,000** D. 90,000
40. If you are buying 45-0-0, you are buying
 A. lime **B. nitrogen** C. potassium D. phosphorus E. seed