

2008 State Crops Exam



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

10. What is the mode of action of Atrazine?
- A. cell membrane disruptor
 - B. amino acid inhibitor
 - C. photosynthesis inhibitor
 - D. growth regulator
11. Plate-like structure in the top six inches of a soil is often a sign of what?
- A. earthworms
 - B. good soil tilth
 - C. compaction
 - D. an undisturbed soil
12. A corn plant is at the V6 growth stage. The growing point of this corn plant is above ground.
- A. True
 - B. False
13. 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
14. Dry soils are _____ to warm in the spring than wet soils.
- A. quicker
 - B. slower
 - C. no different
15. If you are calibrating your corn planter and desire 28,000 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"
16. For a 50 bushel per acre soybean crop, you would need approximately _____ pounds of anhydrous ammonia.
- A. 225-300
 - B. 500-675
 - C. 710-1020
 - D. N is not needed

17. Rhizomes, creeping roots, and stolons are commonly found on plants having a _____ life cycle.

- A. summer annual B. winter annual C. biennial D. perennial

18. How many acres are in one hectare?

- A. 0.045 B. 1 C. 2.471 D. 3

19. Which of these nutrients is less available at alkaline pHs?

- A. Iron B. Potassium C. Sulfur D. Magnesium

20. A typical plant population would be _____ plants per acre in a cornfield.

- A. 100 B. 2000 C. 27,000 D. 150,000

21. What does CEC stand for?

- A. Cold Emulsified Concentrate
B. Cation Exchange Capacity
C. Carryover Energy Capacity

22. What is pH defined as?

- A. negative log of nitrogen ion concentration
B. positive log of chlorine ion concentration
C. negative log of hydrogen ion concentration

23. Manure placed on crop fields will

- A. improve soil structure
B. not loosen soil as much as adding sand
C. compact the soil but provide plant food
D. lower earthworm populations due to high chemical concentrations

24. Roundup herbicide is selective.

- A. True B. False

25. Di-ammonium phosphate's analysis is:
- A. 48-0-9 B. 18-46-0 C. 21-13-8 D. 10-22-6
26. How many pints are there in $1\frac{1}{2}$ gallons of herbicide?
- A. 8 B. 10 C. 12 D. 16
27. Crop growth response to fertilizer application is
- A. greatest on cool, infertile soils
- B. greatest on moderately fertile soils
- C. greatest on soils of high fertility
- D. equal on infertile, moderately fertile, and fertile soils
28. 12. Of the following, which flower structure is not part of the female anatomy?
- A. anther B. stigma C. style D. ovary E. ovule
29. The disease Gray Leaf Spot likes which of the following environments?
- A. cool, dry B. warm, dry C. cool, wet D. warm, wet
30. Of the three major components of a corn kernel, the _____ is the site of carbohydrate storage, which is used for energy and a food source for the emerging plant.
- A. embryo B. endosperm C. coleoptile D. pericarp
31. 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
32. When is armyworm a problem in corn?
- A. April, May B. May, June, July C. June, July
33. Treflan, an herbicide made by Dow Elanco, kills annual grasses and Johnsongrass. This herbicide is applied
- A. post emergenc B. pre-plant incorporated C. pre-emergence

34. The two conditions _____ contribute to lodging in wheat.
- A. take-all disease and poor fertilization
 - B. low seeding rate and poor fertilization
 - C. higher nitrogen application and higher seeding rate
 - D. lodging disease and smut
35. 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
36. When you buy 0-0-60 for your garden, you are buying _____ plant food.
- A. nitrogen
 - B. potassium
 - C. lime
 - D. phosphorus
 - E. salt
37. The selectivity of a herbicide is a measure of the
- A. herbicide's ability to not go off target such as drift, runoff, volatilization, etc.
 - B. toxicity of an herbicide to animals and humans
 - C. amount of time that a herbicide is able to remain active in the soil or on the soil surface
 - D. species an herbicide will kill in relation to the type and number of species it will not kill
38. Most of the corn in Indiana is planted in rows separated by _____ inches.
- A. 6
 - B. 24
 - C. 30
 - D. 36
 - E. 40
39. 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
40. 34. How many bushels of corn will fit in a grain bin that is 20 feet wide, 30 feet to the eave and 40 feet tall at the top of the cone?
- A. 13,190 bu.
 - B. 5024 bu.
 - C. 6073 bu.
 - D. 8396 bu.

