

National Agronomy CDE Test 2016: Answers at End

1. What is considered to be stored food in plants?
 - a. fats
 - b. carbohydrates
 - c. proteins
 - d. fructose

2. An onion is a :
 - a. modified stem
 - b. modified leave structure
 - c. corm
 - d. bulb

3. The method of irrigation which is least subject to water loss by evaporation is:
 - a. surface drip
 - b. subsurface drip
 - c. ditch and rill
 - d. sprinkler

4. Which of the following crop is in the nightshade, or solanaceae, family?
 - a. potato
 - b. peanut
 - c. popcorn
 - d. cabbage

5. Which of the following soil types would be described as strongly leached, acid, forest soils?
 - a. Vertisols
 - b. Histosols
 - c. Inceptisols
 - d. Peptosols

6. Which of the following is an uptake form of nitrogen?
 - a. NO_3
 - b. NH_3
 - c. N_2
 - d. NO_2

7. Which of the following soil textures would likely have the lowest soil fertility?

- a. clay
- b. loamy sand
- c. silt loam
- d. sand

8. A chlorophyll meter determines if _____ is sufficient in a plant.

- a. P
- b. K
- c. S
- d. N

9. _____ is a major factor in the way pests are transported to host crops.

- a. wind
- b. water
- c. fog
- d. snow

10. If you want to maximize the amount of vegetative cover left on the soil, which of the following tillage practices should you use?

- a. moldboard plow
- b. no till
- c. strip till
- d. ridge tillage

11. You farm a half section of canola. Your field man suggests you apply Treflan at a rate of 2 pint per acre. Treflan costs \$ 18.50 per gallon. How many gallons of Treflan should you buy?

- a. 8
- b. 54
- c. 48
- d. 80

12. What will be the cost of the Treflan for the crop?

- a. \$5,920
- b. \$1,480
- c. \$2,350
- d. \$ 320

13. Which of the following is an advantage of a crop rotation over a monoculture system?

- a. risk is spread across more than one crop
- b. timing of fertilizer and pesticide application is easier
- c. less equipment is usually needed
- d. a higher level of management is required

14. The offspring of two plants which differ genetically are :

- a. clones
- b. hybrids
- c. sisters
- d. parents

15. Which of the following is NOT one of the three sides of the disease development triangle?

- a. antigen
- b. environment
- c. host
- d. pathogen

16. The textural class of soil that is 10 percent clay and 35 percent sand is:

- a. sandy loam
- b. sand
- c. silt loam
- d. loamy sand

17. If a herbicide label calls for the herbicide to be incorporated. This means the herbicide needs to be:

- a. incorporated into water
- b. incorporated into the soil
- c. incorporated with another herbicide
- d. incorporated with fertilizer

18. Which soil structure would be typical for a good seed bed?

- a. granular
- b. blocky
- c. platy
- d. massive

19. Which of the following factors is the most important in determining time of planting?

- a. soil pH
- b. soil fertility
- c. soil aeration
- d. soil moisture

20. What is another term for rhizome:

- a. bulb
- b. horizontal underground stem
- c. crown
- d. tuber

21. To what plant family do grass crops, i. e. corn, wheat, belong to?

- a. leguminoseae
- b. gramineae
- c. solanaceae
- d. crucifereae

22. Which of the following soil types would best be described as formed from organic material?

- a. Inceptisols
- b. Vertisols
- c. Histosols
- d. Vertisols

23. Which of the following characteristics is used to identify broadleaf weed seedlings?

- a. auricles
- b. cotyledons
- c. ligules
- d. pubescence

24. If a plant can exclude or overcome a disease it is considered?

- a. diverse
- b. susceptible
- c. resistant
- d. tolerant

25. A limitation of a GMO crop is:

- a. not marketable in some countries
- b. usually less yield
- c. higher seed costs
- d. require higher soil fertility

26. Which of the following characteristics are used to identify grass weed seedlings?

- a. leaf arrangement
- b. simple versus compound leaf
- c. pubescent on the cotyledons
- d. presence or absence of ligules

27. Biological control agents that work best are:

- a. indigenous to the crop
- b. indigenous to the area
- c. native populations
- d. not indigenous to the crop or area

28. What type of fungicides are designed to kill specific pests, as opposed to a wide range of pests?

- a. narrow spectrum
- b. systemic
- c. acute
- d. broad spectrum

29. This method of applying P usually results in the most available P.

- a. broadcast and disked
- b. broadcast
- c. banded
- d. top-dress

30. Which of the following pathways is of most concern for loss of phosphate from recently tilled fields?

- a. leaching
- b. runoff
- c. erosion
- d. ponding

31. In which of the following situations will more volatilization occur?

- a. dry phosphate drilled with seed wheat
- b. green manure disked in after application
- c. anhydrous ammonia shanked into fallow ground
- d. dry blended fertilizer applied on wet soil

32. The area in acres of a square field that is 1500' on each side is:

- a. 3
- b. 6
- c. 52
- d. 160

33. If a field has a 20 foot change in elevation over a distance of 1000 feet, the slope is:

- a. 0.02%
- b. 2 %
- c. .2 %
- d. 20 %

34. Which type of erosion removes a thin layer of soil?

- a. splash
- b. sheet
- c. rill
- d. gully

35. Which of the following factors affects wind erosion the least?

- a. length of slope
- b. surface roughness
- c. soil texture
- d. vegetation

36. Gluten is a term often heard when people discuss health. Gluten is actually a _____ found in grains. Gluten in wheat allows the bread dough to be _____.

- a. fat, tasty
- b. protein, elastic
- c. carbohydrate, high in calories
- d. sugar, sweet

37. The bran is the part of the wheat kernel that:

- a. is the soft inner part
- b. is embryo that would germinate
- c. is the outer shell or surface of the kernel
- d. is processed into refined flours

38. The reason nitrogen is usually deficient in soils is because it is:

- a. not very mobile
- b. a micronutrient
- c. not applied correctly
- d. highly mobile

39. As corn stubble and other plant material decompose, nutrients are released to the soil. This process is called:

- a. mineralization
- b. soil mining
- c. allelopathy
- d. immobilization

40. Seedling emergence is hindered by:

- a. plowpans
- b. surface crusting
- c. warm weather
- d. deep water tables

41. The irrigation method where water is applied at very low volumes is :

- a. wheel lines
- b. hand lines
- c. furrow
- d. drip

42. A good soil structure in the subsoil improves:

- a. germination
- b. root elongation
- c. water table levels
- d. symbiotic nitrogen fixation

43. Some weeds show herbicide resistance because:

- a. their seeds live in the soil for many years
- b. more organic farming is taking place
- c. the same herbicide has been used year after year
- d. weeds are finding ways to reproduce in different methods

44. Loess soils are deposited by:

- a. wind
- b. water
- c. glaciers
- d. equipment

45. If the terminal bud of a canola plant was damaged by a late season frost, regrowth will occur from:

- a. auxillary buds
- b. roots
- c. lateral stems
- d. trifoliate leaves

46. A seed germinates and forms a rosette in the fall. The next year this rosette grows a stem, flowers and forms a seedhead. This type of plant is best described as:

- a. an annual
- b. a winter annual
- c. a biennial
- d. a perennial

47. Economic Optimum Nitrogen rate for any crop is:

- a. the rate where the crop yield is at its maximum
- b. the rate where the last unit of N returns enough crop revenue to pay for the N
- c. applying as much N as possible until the crop lodges
- d. applying the amount of N that is stated on your soil test results

48. Soybeans respond to a poor crop stand by:

- a. tillering
- b. branching
- c. producing stolons
- d. developing auxillary buds

49. Winter wheat responds to a poor crop stand by:

- a. tillering
- b. branching
- c. producing stolons
- d. developing auxillary buds

50. In corn, stage R1, refers to:

- a. seedling emergence
- b. tasseling
- c. silking
- d. denting

Answers to 2016 National CDE Written Test

1. b
2. d
3. b
4. a
5. b
6. a
7. d
8. d
9. a
10. b
11. d
12. b
13. a
14. b
15. a
16. c
17. b
18. a
19. d
20. b
21. b
22. c
23. b
24. c
25. a
26. d
27. d
28. a
29. c
30. c
31. d
32. c
33. b
34. b
35. a
36. b
37. c
38. d
39. a
40. b
41. d
42. b

- 43. c
- 44. a
- 45. a
- 46. c
- 47. b
- 48. b
- 49. a
- 50. c