

KOSSA Practice Items #2
Horticulture

1. The four layers of a normal soil profile are

- A. topsoil, subsoil, and root zone
- B. sand, silt, and clay
- C. root zone, topsoil, and subsoil
- D. topsoil, subsoil, parent material and bedrock

(OB 001)

2. Which one of the following numbers indicates a neutral pH reading on a soil test?

- A. 0
- B. 1
- C. 7
- D. 14

(OB 003)

3. Which of the following pH ranges do most landscape plants perform best?

- A. 3.0 – 4.5
- B. 5.6 – 7.0
- C. 6.8 – 9.2
- D. above 10

(OB 004)

4. How is pH raised and acidity lowered in acidic soil?

- A. The addition of nitrogen to the soil
- B. The addition of lime to the soil
- C. The addition of sulfur to the soil
- D. The addition of potash to the soil

(OB 004) (OD 002)

5. There are twelve basic textural classes that can be determined after a soil test using which of the following resources?

- A. textural square
- B. ribbon test
- C. textural triangle
- D. texture test

(OB 005)

6. Which of the following components make up fifty percent of a typical soil structure?

- A. peat moss, organic matter
- B. sand, silt
- C. water, air
- D. peat moss, inorganic matter

(OB006)

7. Which of the following is a commonly used component of a soilless growing media?

- A. peat moss
- B. silt
- C. clay
- D. sand

(OB 006)

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8. Which of the following is not true statement about soilless growing media?
- A. They are sterile.
 - B. They are uniform in composition.
 - C. They have good moisture retention and drainage.
 - D. They contain a high mineral content.

(OB 006)

9. Which of the following components of a soilless media provides aeration?
- A. Spagnum moss
 - B. Perlite
 - C. Vermiculite
 - D. Peat moss

(OB 006)

10. Which of the following statements best describes a soilless media?
- A. used only for hydroponics
 - B. a growing media that has no soil
 - C. more likely to have worms, bacteria, and nematodes than a soil mix
 - D. rarely used today

(OB 006)

11. The proportion of sand, silt, and clay determines which of the following?
- A. soil structure
 - B. soil texture
 - C. soil color
 - D. soil loam

(OB 006)

12. Grafting consists of which two pieces of a plant?
- A. root and stem
 - B. pollen and egg
 - C. scion and stock or rootstock
 - D. root and bud

(OC 001)

13. Which of the following is true about tissue culture?
- A. Tissue culture techniques are used to grow genetically engineered plant cells.
 - B. Only a small number of plants can be propagated through tissue culture.
 - C. Virus diseases can never be eliminated from plant tissue using the tissue culture method of propagation.

D. Tissue culture is a highly technical form of sexual reproduction

(OC 001)

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14. What is tissue culture?

- A. The process of connecting two plant parts together in such a way that they will unite and grow as a single plant
- B. growing fertilized seeds into mature plants
- C. dividing plant roots or the entire plant into two or more plants by cutting the original plant
- D. growing plant cells or small pieces of plant tissue on an artificial medium

(OC 001)

15. Asexual propagation involves _____.

- A. pollination
- B. reproduction of plants using only vegetative parts
- C. new genetic combinations in the offspring
- D. fertilization of an egg by sperm

(OC 001)

16. How are chrysanthemums propagated?

- A. seed
- B. leaf cuttings
- C. stem cuttings
- D. air layering

(OC 001)

17. Sexual reproduction involves which of the following?

- A. genetically identical offspring
- B. offspring called clones
- C. new genetic combinations in the offspring
- D. reproduction without the need of egg or sperm cells

(OC 001)

18. Which of the following are the requirements for seed germination?

- A. water, oxygen, optimum temperatures, and possibly light or dark conditions
- B. water, carbon dioxide, optimum temperatures, and possibly light or dark conditions
- C. soil, oxygen, optimum temperatures, and darkness
- D. water, fertilizer, carbon dioxide, and optimum temperatures

(OC 001)

19. What is the most common method of propagation in flowering and vegetable crops?

- A. Leaf Cuttings
- B. Division of Roots
- C. Grafting
- D. Seeds

(OC 001)

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20. A strawberry plant will naturally propagate by developing a

- A. Bulb
- B. Tuber
- C. Runner
- D. Rhizome

(OC 001)

21. Which of the following is not a benefit of growing horticulture crops from seed?

- A. Plants are uniform in growth
- B. Reduced germination rates
- C. Young plants are more disease resistant
- D. Cheaper way to produce crops

(OC 001)

22. Which of the following must be placed on the label of plants or seeds?

- A. Date only
- B. Name and Variety
- C. Variety only
- D. Name, Variety, and Date

(OC 002)

23. When growing Chrysanthemums, it is important to water _____ to prevent root rot.

- A. when the top of the growing medium begins to appear dry
- B. when it is convenient
- C. when the plants are wilted
- D. when the medium is saturated

(OC 003)

24. How are strawberries, raspberries, and blackberries harvested?

- A. by hand
- B. by mechanical picker
- C. by mechanical shakers
- D. high velocity spray

(OD 003)

25. Nitrogen causes plants to

- A. Grow rapidly and develop a dark green color
- B. Resist disease and develop strong roots
- C. Harden off more readily
- D. Produce more blooms

(OC 004) (OD 002)

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26. Lime provides the plant with which element?

- A. nitrogen
- B. potash
- C. calcium
- D. magnesium

(OC 004)

27. All of the following statements are benefits of Potassium except

- A. Increases the resistance to disease
- B. Develops a strong root system
- C. Essential in developing chlorophyll
- D. Flowers and seeds cannot form without it

(OD 002)

28. Which of the following is not an indication of a phosphorus deficiency?

- A. Purple coloring on the underside of leaves
- B. Reduced flower
- C. Reduced fruit production
- D. Yellowing of leaf margins

(OD 002)

29. What term is used to describe when chemicals, oil, and other substances leak into the land?

- A. contamination
- B. natural erosion
- C. salinization
- D. soil erosion

(OD 004)

30. The United States Department of Agriculture Plant Hardiness Map divides the United States into how many regions?

- A. 10
- B. 13
- C. 9
- D. 20

(OD 005)

31. On the United States Department of Agriculture Plant Hardiness Map, Kentucky is located in region

- A. 5
- B. 6
- C. 8
- D. 9

(OD 005)

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32. Which of the following pesticides would be used to eliminate insects such as aphids or white flies?

- A. Fungicide
- B. Insecticide
- C. Miticide
- D. Herbicide

(OE 001)

33. Which of the following pesticides would be used to eliminate pests such as mites or ticks?

- A. Fungicide
- B. Insecticide
- C. Miticide
- D. Herbicide

(OE 001)

34. Which of the following are the four main routes that a pesticide can enter the body?

- A. oral, dermal, inhalation, eye
- B. oral, hair, blood, eye
- C. blood, lymph nodes, dermal, inhalation
- D. kidneys, dermal, hair, eye

(OE 002, OE 003)

35. Which of the following is not an acceptable practice when disposing of chemical containers?

- A. Burn empty containers
- B. Rinse equipment and container in a grassy area
- C. Wash contaminated clothing separately
- D. Wash hands thoroughly with soap and water

(OE 002)

36. A pesticide that has the signal word "DANGER" on the label would be which of the following acute toxicity levels?

- A. Moderately toxic
- B. Slightly toxic
- C. Highly toxic
- D. Relatively toxic

(OE 002, OG 004)

37. A pesticide that has a signal word "WARNING" on the label would be which of the following acute toxicity levels?

- A. Moderately toxic
- B. Slightly toxic
- C. Highly toxic
- D. Relatively toxic

(OE 002, OG 004)

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38. Which of the following is an acceptable time to spray a pesticide outdoors?

- A. Early morning
- B. Mid day
- C. On a windy day
- D. When workers or persons are present in the area

(OE 003)

39. Which of the following would be the first step in the proper mixing of pesticides?

- A. Fill the sprayer with two-thirds of the water needed
- B. Test the sprayer with water to check for leaks and other malfunctions
- C. Read the label to determine the proper mixture
- D. Mix chemicals in a grassy area

(OE 003)

40. A chewing insect, such as a grasshopper, beetle, or caterpillar will result in all of the following except

- A. sucking of sap from plant tissues
- B. holes in leaves
- C. removal of tissue between leaf veins
- D. consumption of roots

(OE 004)

41. Which of the following insects is considered to be an insect with sucking mouthparts?

- A. Aphid
- B. Beetle
- C. Thrip
- D. Grasshopper

(OE 004)

42. Which of the following insects is considered to be a "chewing" insect?

- A. Scale
- B. Aphids
- C. Thrips
- D. Beetle

(OE 004)

43. Aphids and scales can cause the following damage to plants except

- A. spotting of foliage
- B. curling of leaves
- C. stunted fruits
- D. holes in foliage

(OE 004)

44. It is recommended to clean hand tools, such as a hand trowel or shovel

- A. once a month
- B. after 5 uses
- C. after every use
- D. at the end of summer

(OF 001)

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45. Which of the following pruning tools would be used to trim branches large in diameter and 10 feet above a ground maintenance workers reach?

- A. Hand pruners
- B. Lopping shears
- C. Pole Pruner
- D. Pruning Saw

(OF 001)

46. Which of the following would not be a benefit of cleaning and maintaining hand tools used in the horticulture industry?

- A. Prevent the spread of diseases
- B. Makes pruning difficult
- C. Extends their life span
- D. Prevents rusting of blades

(OF 001)

47. Which of the following is a good safety practice associated with power tools?

- A. Plug electric tools in while checking and repairing.
- B. Use tools that create a potential safety hazard such as electric tools with damaged cords or tools with missing or defective guards/shields.
- C. Operate electric tools in wet or damp areas.
- D. Operate gasoline-powered tools only in well-ventilated areas

(OG 002)

48. If a serious accident occurs in the workplace, which of the following should you do first?

- A. Immediately administer CPR
- B. Move the victim to a safe place
- C. Leave the victim
- D. Call 911 for Emergency Medical Services

(OG 002)

49. When calling 911, you should give all of the following information to the dispatcher except?

- A. Names of all victims
- B. Type of emergency
- C. Location of emergency
- D. Number of victims

(OG 002)

50. Which of the following is an acceptable practice while operating a lawn mower?

- A. Read the owner's manual
- B. Check the mower for loose parts
- C. Know the area in which you are mowing
- D. Remove the guards from the mowing deck

(OG 002)

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51. Which of the following is not considered to be a piece of personal protective equipment that should be worn when applying pesticides?

- A. Respirator
- B. Eye Protection
- C. Cotton gloves
- D. Waterproof clothing

(OG 002)

52. If a pesticide is spilled on the skin, it should be washed off immediately with which of the following?

- A. Soap and Water
- B. Water only
- C. Moist towel
- D. Rubbing alcohol

(OG 002)

53. A pesticide that has a signal word "CAUTION" on the label would be which of the following acute toxicity levels?

- A. Moderately toxic
- B. Slightly toxic
- C. Highly toxic
- D. Relatively toxic

(OE 002, OG 004)

54. Safety in the horticulture industry is the responsibility of

- A. Manager
- B. Employees
- C. Machinery Operators
- D. Everyone in the workplace

(OG 006)

55. The Worker Protection Standards (WPS) law enforces which of the following?

- A. Regulates chemicals
- B. Bans chemicals from agricultural applications
- C. Regulates pesticides used for homeowners
- D. Sets guidelines for during and after chemical application

(OG 002, OG 007)

56. Which of the following tools would not be acceptable to use for pruning?

- A. Hand shears
- B. Lopping shears
- C. Pruning Saw
- D. Chisel

(OG 007)

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57. Which class of fire extinguisher is used to put out a fire on greenhouse glazing materials, such as acrylic, polycarbonate, or fiberglass reinforced polyester?

- A. Class A
- B. Class B
- C. Class C
- D. Class D

(OG 008)

58. Which class of fire extinguisher is used to put out a fire on flammable liquids, such as gasoline, fertilizers, pesticides, or oil?

- A. Class A
- B. Class B
- C. Class C
- D. Class D

(OG 008)

59. Which class of fire extinguisher is used to put out a fire on electrical equipment, such as machinery, power tools, or unit heaters?

- A. Class A
- B. Class B
- C. Class C
- D. Class D

(OG 008)

60. A green triangle located on a portable fire extinguisher indicates that it is which of the following?

- A. Class A
- B. Class B
- C. Class C
- D. Combination

(OG 008)

61. A red square located on a portable fire extinguisher indicates that it is which of the following?

- A. Class A
- B. Class B
- C. Class C
- D. Combination

(OG 008)

62. A blue circle located on a portable fire extinguisher indicates that it is which of the following?

- A. Class A
- B. Class B
- C. Class C
- D. Combination

(OG 008)

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63. In a head house, chemical storage building, or greenhouse the fire extinguisher should be located

- A. At the rear of the facility
- B. In the corner
- C. Locked in a cabinet
- D. By the exit door

(OG 008)

64. Which of the following defines safety in the workplace?

- A. Preventing injury and loss
- B. Staying out of harms way
- C. Working slowly
- D. Reading all the instructions

(OG 009)

65. Which of the following agencies approve pesticide labels?

- A. Kentucky Department of Agriculture
- B. United States Department of Agriculture
- C. Food and Drug Administration
- D. Environmental Protection Agency

(OH 002)

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- | | |
|-------|-------|
| 1. D | 35. A |
| 2. C | 36. C |
| 3. B | 37. A |
| 4. B | 38. A |
| 5. C | 39. B |
| 6. C | 40. A |
| 7. A | 41. A |
| 8. D | 42. D |
| 9. B | 43. D |
| 10. B | 44. C |
| 11. A | 45. C |
| 12. C | 46. B |
| 13. A | 47. D |
| 14. D | 48. D |
| 15. B | 49. A |
| 16. C | 50. D |
| 17. C | 51. C |
| 18. A | 52. A |
| 19. C | 53. B |
| 20. C | 54. D |
| 21. B | 55. D |
| 22. D | 56. D |
| 23. A | 57. A |
| 24. A | 58. B |
| 25. A | 59. C |
| 26. A | 60. A |
| 27. D | 61. B |
| 28. D | 62. C |
| 29. A | 63. D |
| 30. B | 64. A |
| 31. B | 65. D |
| 32. B | |
| 33. C | |
| 34. A | |