Agronomy Exam Version 1

1) The endosperm is ____________ to an emerging seed.
   A. The starchy food source
   B. The first root
   C. Protection for the plumule
   D. The embryo

2) Tomato spotted wilt is a disease of tomato, potato and several other crops. It is caused by a ____________.
   A. Virus
   B. Bacteria
   C. Fungi
   D. Mycoplasm

3) The primary source of error from a soil test is
   A. laboratory analysis
   B. field sampling technique
   C. soil that is too wet
   D. none of the above

4) A pesticide’s ability to break down slowly and remain in the environment for a long time refers to its ____________.
   A. Persistence
   B. Adsorption
   C. Solubility
   D. Runoff

5) Chemicals emitted by an organism to influence the behavior of other organisms of the same species are called ____________.
   A. Parasites
   B. Pheromones
   C. Pyrithroids
   D. Surfactants

6) The first root emerging from the seed is called the:
   A. Crown root
   B. Radical
   C. Seminal root
   D. Coleoptiles

7) The structure that elongates to cause the emergence in corn is the:
   A. Coleoptiles
   B. Mesocotyl
   C. Radicle
   D. Plumule
8) If the soil has a low pH, what should be applied?
A. Gypsum
B. Lime
C. Sulfur
D. Iron

9) Soybeans have this type of root system:
A. Fibrous
B. Seminal
C. Tap
D. Nodal or crown

10) On soybean roots, soybean cyst nematode infections can inhibit the formation of what?
A. Tap roots
B. Nitrogen-fixing nodules
C. Root hairs
D. Brace roots

11) Which nutrient is a major concern in surface water because it may stimulate algae growth?
A. Magnesium
B. Potassium
C. Phosphorus
D. Calcium

12) Which of the following is a serious water quality concern?
A. Nitrogen fertilizer
B. Phosphorus fertilizer
C. Sediment
D. All of these are serious water quality concerns

13) Which statement best reflects the use of GMOs (ex. herbicide resistant crops) in organic agriculture?
A. Not allowed at all
B. Allowed on a restricted basis
C. Allowed for selected crops
D. No restrictions at all

14) When using an IPM approach to controlling pests, you would:
A. Use no chemicals
B. Use chemicals on a limited basis
C. Use an "organic" approach to control pests
D. Consider a variety of control measures - crop rotation, biological controls, and chemicals
15) Agronomy is the science of:
A. Soil and soil fertility
B. Plants and plant growth
C. Environmental sustainability
D. All of the above and more

16) Which of the following is an annual?
A. Red clover
B. Sweetclover
C. Orchardgrass
D. Sudangrass

17) Which time of application of nitrogen is most efficient as far as plant utilization?
A. Spring
B. Fall
C. Winter
D. There is no difference

18) Which major nutrient is the most mobile in the soil?
A. Nitrogen
B. Potassium
C. Phosphorus
D. Manganese

19) As erosion occurs, the crop productivity potential of a soil:
A. Decreases as topsoil thins
B. Is not affected because we can apply fertilizer to replace lost nutrients
C. Is not important because we produce more corn than the market can buy
D. Increases as topsoil thins

20) Which of the three crops would suffer the most from hail damage shortly after emergence?
A. Corn
B. Oats
C. Soybeans
D. All three would suffer the same yield loss

21) When taking soil samples in a conventional tilled system, one should sample at a depth of:
A. 2-3 inches.
B. 4-5 inches.
C. 6-7 inches.
D. 9-10 inches.
22) Soil erosion is directly related to:
A. Amount of plant residue on the soil.
B. Tillage practices.
C. Duration and intensity of rainfall.
D. All of the above.

23) The seed coat of a corn kernel is called the:
A. Hilum.
B. Pedicel.
C. Pericarp.
D. Scutellum.

24) Switchgrass is established from:
A. Seed
B. Cuttings
C. Plugs
D. Stolons

25) Aphids normally cause the most damage in what crop?
A. Alfalfa
B. Corn
C. Oats
D. Soybeans