1. Classify each of the following as SELECTIVE or NONSELECTIVE. Circle the correct answer. (1 pt ea.)

   - Acclaim: Selective or Non-selective
   - Basagran: Selective or Non-selective
   - Finale: Selective or Non-selective
   - Image: Selective or Non-selective
   - Lontrel: Selective or Non-selective
   - Metham Sodium: Selective or Non-selective
   - Reward: Selective or Non-selective
   - Scythe: Selective or Non-selective
   - Surflan: Selective or Non-selective
   - Triclopyr: Selective or Non-selective

2. Describe 3 ways to selectively use non-selective, postemergence herbicides in landscape beds. (6 pts)

   - Directed spray
   - Wiper application
   - Clipper applied

3. Of the 4 nonselective, postemergence herbicides discussed in class, which ones are contact and which are systemic? (4 pts)

<table>
<thead>
<tr>
<th>Contact</th>
<th>Systemic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scythe</td>
<td>Finale</td>
</tr>
<tr>
<td>Reward</td>
<td>Roundup</td>
</tr>
</tbody>
</table>

4. The four (4) postemergence herbicides listed below differ in how rapidly they cause
symptom development on susceptible weeds. Match the correct letter from the column on the right with the column on the left. (1 pt ea)

<table>
<thead>
<tr>
<th>c</th>
<th>Finale</th>
<th>a</th>
<th>20 to 30 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>d</td>
<td>Glyphosate</td>
<td>b</td>
<td>2 to 4 hours</td>
</tr>
<tr>
<td>b</td>
<td>Reward</td>
<td>c</td>
<td>1 to 2 days</td>
</tr>
<tr>
<td>a</td>
<td>Scythe</td>
<td>d</td>
<td>7 to 10 days</td>
</tr>
</tbody>
</table>

5. Why is it not a good idea to mix Scythe and Roundup? (2pts)

Scythe burns the foliage before glyphosate can absorb and translocate.

6. List the 4 selective postemergence graminicides discussed in lecture. (4 pts)

Acclaim, Segment or Sethoxydim, Fusilade, Envoy

7. Which of the four selective postemergence graminicides would best control the following in a ground cover juniper bed? (2pts)

Crabgrass: Segment

Bermudagrass: Envoy
8. Casoron is used to control which of the following weeds (2 pts)
   a. annual bluegrass
   b. bamboo
   c. bermudagrass
   d. crabgrass
   e. all of the above

9. Which landscape bed types would you NOT be able to utilize Casoron?
   Circle all correct answers (4 pts)
   a. woody tree and shrub beds
   b. pansy beds
   c. trees and shrubs planted on a drainage ditch bank
   d. a daylily bed

10. Lontrel controls weeds in the __Aster__________________________ and
    _____Legume / bean_____________________ plant families. (2 pts)

    List an example of one common landscape weed in each family: (2pts)
    Aster – eclipta, horseweed, dogfennel, oxeye daisy, aster
    Legume: clover, vetch

    Lontrel should not be used around what common landscape tree? (2pts)
    Redbud, mimosa (also a weed), locust
11. Match the weed in Column A with the most appropriate answer from Column B. You will use each answer from column B once and only once. (2 pts ea.)

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>f Cat briar</td>
<td>a. Basagran</td>
</tr>
<tr>
<td>b Florida Betony</td>
<td>b. Casoron</td>
</tr>
<tr>
<td>h Maple tree seedlings</td>
<td>c. Image</td>
</tr>
<tr>
<td>g Mugwort</td>
<td>d. Sedgehammer</td>
</tr>
<tr>
<td>c Pennywort / dollarweed</td>
<td>e. Roundup in the fall</td>
</tr>
<tr>
<td>e Poison ivy</td>
<td>f. Roundup in the spring</td>
</tr>
<tr>
<td>d Purple nutsedge</td>
<td>g. Roundup spring and fall</td>
</tr>
<tr>
<td>a Yellow nutsedge</td>
<td>h. Triclopyr (Garlon)</td>
</tr>
</tbody>
</table>

12. Describe how to distinguish between yellow and purple nutsedge before plants flower? Be specific. (4 pts)

Yellow nutsedge – leaf tip has a long tapered tip.
Purple: bluntly pointed leaf tip.
Illustrate.

13. Why is Image typically NOT recommended for use in landscape plantings? (2pts)

It damages most landscape plants
14. Match the statement in the left column with the most correct answer in the right column. Answers in the right column are used only once. (2 points each)

G. Preemergence crabgrass and broadleaf weed control around woody ornamentals
   A. Basagran

F. Preemergence control of yellow nutsedge
   B. Basamid

D. Applied only in the winter
   C. Biobarrier

J. Postemergence crabgrass control in annual bedding plants
   D. Casoron

A. Postemergence control of yellow but not purple nutsedge
   E. Envoy

B. Kills nutedge tubers
   F. Pennant Magnum

C. Prevents perennial weeds from growing for many years
   G. Surflan

I. Preemergence control of annual bluegrass in annual bedding plants
   H. Sedgehammer

E. Postemergence control of annual bluegrass
   I. Treflan

H. Postemergence control of purple nutsedge
   J. Vantage / Sethoxydim

15. You wish to apply a 2% by volume solution of Roundup-Pro for weed control in your landscape beds. How much Roundup Pro do you add to your 4 gallon Solo Backpack Sprayer? [there are 128 oz per gallon] (5 pts)

   a. 102 oz
   b. 10 oz
   c. 8 oz
   d. 2.6 oz
   e. none of the above
16. If your sprayer is calibrated to deliver 16 gallons per acre, how much spray will you need per 1000 sq. ft of bed space? Circle the correct answer. (5 pts)

   a. 3.7 Gallons
   b. 1.3 Gallons
   c. 1.6 Gallons
   d. 0.62 Gallons
   e. 0.37 Gallons

17. You have a landscape bed that you want to treat with Snapshot 2.5 G at a rate of 150 lb per acre. The landscape bed is about 12 ft. wide and 50 ft. long. How much Snapshot 2.5G will you need to treat this bed? (5 pts)

   a. 15 lb
   b. 12.6 lb
   c. 2.1 lb
   d. 1.5 lb
18. You have a landscape bed that is infested with English ivy. What two postemergence herbicides we discussed in class are likely to provide control, AND when would you apply them to obtain the optimum control. (5 pts)

   Glyphosate / Roundup – in the spring when there is new growth.

   Garlon / triclopyr – in the spring on new growth but it works pretty much any time the plant is actively growing.

19. Describe a plan for controlling yellow nutsedge in a woody landscape planting. Be specific about herbicide choice, application timing and any precautions which are necessary to maintain ornamental plant health. (5 pts)

   Pre treatment with Pennant Magnum or Freehand or Tower. Treat before ornamentals break bud and again about 8 weeks later. With the spray herbicides, the second application should be directed to avoid foliar injury.

   Treat “escaped” weeds with spot applications of glyphosate, glufosinate or Sedgehammer. Use a directed spray to avoid contacting the foliage or green stems of desirable plants.