

**Weed Science, PLS 4601c Section 7644  
and Grad. – Prin. Of Weed Science AGR 6932 Section 9212  
University of Florida - Davie**

<http://grove.ufl.edu/~turf/weedscience/>

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**Quiz 1 –Natural sciences and mathematics (Review)**

1. Using the table of periodic elements below, what is the atomic number of iron?
  - a) 26 <<<<<<<<
  - b) 53
  - c) 56
  - d) 77
  - e) None of the above

<b>Period</b>	1																18	
1	1 <b>H</b> 1.008											13	14	15	16	17	2 <b>He</b> 4.003	
2	3 <b>Li</b> 6.941	4 <b>Be</b> 9.012	Group										5 <b>B</b> 10.81	6 <b>C</b> 12.01	7 <b>N</b> 14.01	8 <b>O</b> 16.00	9 <b>F</b> 19.00	10 <b>Ne</b> 20.18
3	11 <b>Na</b> 22.99	12 <b>Mg</b> 24.31	3	4	5	6	7	8	9	10	11	12	13 <b>Al</b> 26.98	14 <b>Si</b> 28.09	15 <b>P</b> 30.97	16 <b>S</b> 32.07	17 <b>Cl</b> 35.45	18 <b>Ar</b> 39.95
4	19 <b>K</b> 39.10	20 <b>Ca</b> 40.08	21 <b>Sc</b> 44.96	22 <b>Ti</b> 47.88	23 <b>V</b> 50.94	24 <b>Cr</b> 52.00	25 <b>Mn</b> 54.94	26 <b>Fe</b> 55.85	27 <b>Co</b> 58.93	28 <b>Ni</b> 58.69	29 <b>Cu</b> 63.55	30 <b>Zn</b> 65.39	31 <b>Ga</b> 69.72	32 <b>Ge</b> 72.59	33 <b>As</b> 74.92	34 <b>Se</b> 78.96	35 <b>Br</b> 79.90	36 <b>Kr</b> 83.80
5	37 <b>Rb</b> 85.47	38 <b>Sr</b> 87.62	39 <b>Y</b> 88.91	40 <b>Zr</b> 91.22	41 <b>Nb</b> 92.91	42 <b>Mo</b> 95.94	43 <b>Tc</b> (98)	44 <b>Ru</b> 101.1	45 <b>Rh</b> 102.9	46 <b>Pd</b> 106.4	47 <b>Ag</b> 107.9	48 <b>Cd</b> 112.4	49 <b>In</b> 114.8	50 <b>Sn</b> 118.7	51 <b>Sb</b> 121.8	52 <b>Te</b> 127.6	53 <b>I</b> 126.9	54 <b>Xe</b> 131.3
6	55 <b>Cs</b> 132.9	56 <b>Ba</b> 137.3	57 <b>La</b> *138.9	72 <b>Hf</b> 178.5	73 <b>Ta</b> 180.9	74 <b>W</b> 183.9	75 <b>Re</b> 186.2	76 <b>Os</b> 190.2	77 <b>Ir</b> 192.2	78 <b>Pt</b> 195.1	79 <b>Au</b> 197.0	80 <b>Hg</b> 200.5	81 <b>Tl</b> 204.4	82 <b>Pb</b> 207.2	83 <b>Bi</b> 209.0	84 <b>Po</b> (210)	85 <b>At</b> (210)	86 <b>Rn</b> (222)
7	87 <b>Fr</b> (223)	88 <b>Ra</b> (226)	89 <b>Ac</b> ~(227)	104 <b>Rf</b> (257)	105 <b>Db</b> (260)	106 <b>Sg</b> (263)	107 <b>Bh</b> (262)	108 <b>Hs</b> (265)	109 <b>Mt</b> (266)	110 <b>Ds</b> (271)	111 <b>Uuu</b> (272)	112 <b>Uub</b> (277)	114 <b>Uuq</b> (296)		116 <b>Uuh</b> (298)		118 <b>Uuo</b> (?)	
Lanthanide Series			58 <b>Ce</b> 140.1	59 <b>Pr</b> 140.9	60 <b>Nd</b> 144.2	61 <b>Pm</b> (147)	62 <b>Sm</b> 150.4	63 <b>Eu</b> 152.0	64 <b>Gd</b> 157.3	65 <b>Tb</b> 158.9	66 <b>Dy</b> 162.5	67 <b>Ho</b> 164.9	68 <b>Er</b> 167.3	69 <b>Tm</b> 168.9	71 <b>Lu</b> 175.0			
Actinide Series			90 <b>Th</b> 232.0	91 <b>Pa</b> (231)	92 <b>U</b> (238)	93 <b>Np</b> (237)	94 <b>Pu</b> (242)	95 <b>Am</b> (243)	96 <b>Cm</b> (247)	97 <b>Bk</b> (247)	98 <b>Cf</b> (249)	99 <b>Es</b> (254)	100 <b>Fm</b> (253)	101 <b>Md</b> (256)	102 <b>No</b> (254)	103 <b>Lr</b> (257)		

2. Which elements are halogens?
- a) H – Li – Na - K
  - b) Be – Mg – Ca - Sr
  - c) F – Cl – Br - I <<<<<<<<**
  - d) He – Ne – Ar - Kr
  - e) None of the above
3. What is the approximate atomic weight of sodium chloride?
- a) 23
  - b) 28
  - c) 37
  - d) 58 <<<<<<<<**
  - e) None of the above
- 4.** What is the molecular weight of the herbicide MSMA (monosodium methanearsenate) which has the molecular formula  $\text{CH}_4\text{AsNaO}_3$ ?

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5. What type of bonding holds the atoms of methane together?
- a) covalent <<<<<<<**
  - b) ionic
  - c) metallic
  - d) van der Waals forces
  - e) None of the above
6. Aromatic hydrocarbons are derived from a simple 6-carbon molecule which has a strong ring:
- a) benzene <<<<<<<**
  - b) deoxyribonucleic acid
  - c) glucose
  - d) hexane
  - e) None of the above

7. What organelle is involved with respiration in plants?
- a) chloroplast
  - b) mitochondrion <<<<<<<<**
  - c) nucleus
  - d) ribosome
  - e) None of the above
8. What factor is most determining of the rate of evapotranspiration?
- a) absolute temperature
  - b) radiant energy <<<<<<<<**
  - c) vapor pressure deficit (e.g., dryness in the air)
  - d) wind
  - e) None of the above
9. What is the name of a mature plant ovary?
- a) fruit <<<<<<<<**
  - b) ovule
  - c) seed
  - d) spikelet
  - e) None of the above
10. What is the name for a horizontal underground plant stem?
- a) corm
  - b) rhizome <<<<<<<<**
  - c) stolon
  - d) tuber
  - e) None of the above
11. Exponential growth (and decay) can be interpreted with:
- a) addition
  - b) harmonics
  - c) logarithms <<<<<<<<**
  - d) polynomials
  - e) None of the above

12. The stalk holding a leaf to a stem:
- a) pedicle
  - b) peduncle
  - c) pericycle
  - d) petiole <<<<<<<<**
  - e) None of the above
13. In algebra the identity element of multiplication is:
- a) 0
  - b) 1 <<<<<<<<**
  - c) false
  - d) true
  - e) None of the above
14. Which is an essential characteristic of a scientific paper:
- a) accessibility
  - b) novelty
  - c) peer review
  - d) repeatability
  - e) All of the above <<<<<<<<**
15. The process in which the rate of a chemical reaction is either increased or decreased by means of a chemical substance:
- a) antagonism
  - b) catalysis <<<<<<<<**
  - c) denaturation
  - d) synergism
  - e) None of the above
16. Cell division involving reductional division of the number of chromosomes:
- a) disjunction
  - b) meiosis <<<<<<<<**
  - c) mitosis
  - d) replication
  - e) None of the above

17. Shift in plant species composition over time is:
- a) adaptation
  - b) evolution <<<<<<<<**
  - c) migration
  - d) succession
  - e) None of the above
18. A fully subdivided leaf with leaflets:
- a) compound <<<<<<<<**
  - b) decussate
  - c) pinnatifid
  - d) simple
  - e) None of the above
19. German World War I chemist who first solved the problem of synthetically fixing nitrogen from the air:
- a) Fritz Haber <<<<<<<<**
  - b) James Watson
  - c) John Dalton
  - d) Rachel Carson
  - e) None of the above
20. Cool season plants that should do well with elevated CO<sub>2</sub>:
- a) bermudagrass
  - b) C<sub>3</sub> <<<<<<<<**
  - c) C<sub>4</sub>
  - d) torpedograss
  - e) spikelet