

**Registration form**

**Aquatic Environments CEU Training Course \$150.00**  
**48 HOUR RUSH ORDER PROCESSING FEE ADDITIONAL \$50.00**

**Start and finish dates:** \_\_\_\_\_

*You will have 90 days from this date in order to complete this course*

**Name** \_\_\_\_\_ **Signature** \_\_\_\_\_

*I have read and understood the disclaimer notice on page 2. Digitally sign XXX*

**Address:** \_\_\_\_\_

**City** \_\_\_\_\_ **State** \_\_\_\_\_ **Zip** \_\_\_\_\_

**Email** \_\_\_\_\_ **Fax ( )** \_\_\_\_\_

**Phone:**  
**Home ( )** \_\_\_\_\_ **Work ( )** \_\_\_\_\_

**Operator ID #** \_\_\_\_\_ **Exp Date** \_\_\_\_\_

**Please circle/check which certification you are applying the course CEU's.**

Collection \_\_\_ Wastewater Treatment \_\_\_ Pretreatment \_\_\_

Other \_\_\_\_\_

*Your certificate will be mailed to you in about two weeks unless you pay for the rush service.*

**Technical Learning College**  
PO Box 420, Payson AZ 85547-0420  
Fax (928) 272-0747 E-Mail info@tlch2o.com  
(928) 468-0665 Toll Free (866) 557-1746

**Discover card** \_\_\_\_\_ **CCV code on card** \_\_\_\_\_

**American Express**

**Master Card / Visa Card #** \_\_\_\_\_ **Exp. Date** \_\_\_\_\_

**If you've paid on the Internet, please write your Customer #** \_\_\_\_\_

***We will stop mailing the certificate of completion we need your e-mail address. We will e-mail the certificate to you, if no e-mail address; we will mail it to you.***

## **DISCLAIMER NOTICE**

I understand that it is my responsibility to ensure that this CEU course is either approved or accepted in my State for CEU credit. I understand State laws and rules change on a frequent basis and I believe this course is currently accepted in my State for CEU or contact hour credit, if it is not, I will not hold Technical Learning College responsible. I also understand that this type of study program deals with dangerous conditions and that I will not hold Technical Learning College, Technical Learning Consultants, Inc. (TLC) liable for any errors or omissions or advice contained in this CEU education training course or for any violation or injury caused by this CEU education training course material. I will call or contact TLC if I need help or assistance and double-check to ensure my registration page and assignment has been received and graded.

**State Approval Listing Link**, check to see if your State accepts or has pre-approved this course. Not all States are listed. Not all courses are listed. If the course is not accepted for CEU credit, we will give you the course free if you ask your State to accept it for credit.

**Professional Engineers**; Most states will accept our courses for credit but we do not officially list the States or Agencies. Please check your State for approval or acceptance.

## **State Approval Listing URL...**

<http://www.tlch2o.com/PDF/CEU%20State%20Approvals.pdf>

*You can obtain a printed version of the course manual from TLC for an additional \$79.95 plus shipping charges.*

## **AFFIDAVIT OF EXAM COMPLETION**

I affirm that I personally completed the entire text of the course. I also affirm that I completed the exam without assistance from any outside source. I understand that it is my responsibility to file or maintain my certificate of completion as required by the state or by the designation organization.

## **Rush Grading Service**

If you need this assignment graded and the results mailed to you within a 48-hour period, prepare to pay an additional rush service handling fee of \$50.00. This fee may not cover postage costs. If you need this service, simply write RUSH on the top of your Registration Form. We will place you in the front of the grading and processing line.

For security purposes, please fax or e-mail a copy of your driver's license and always call us to confirm we've received your assignment and to confirm your identity. Thank you...

# Aquatic Environments Answer Key

Name \_\_\_\_\_ Phone # \_\_\_\_\_

- |          |          |           |
|----------|----------|-----------|
| 1. ____  | 36. ____ | 71. ____  |
| 2. ____  | 37. ____ | 72. ____  |
| 3. ____  | 38. ____ | 73. ____  |
| 4. ____  | 39. ____ | 74. ____  |
| 5. ____  | 40. ____ | 75. ____  |
| 6. ____  | 41. ____ | 76. ____  |
| 7. ____  | 42. ____ | 77. ____  |
| 8. ____  | 43. ____ | 78. ____  |
| 9. ____  | 44. ____ | 79. ____  |
| 10. ____ | 45. ____ | 80. ____  |
| 11. ____ | 46. ____ | 81. ____  |
| 12. ____ | 47. ____ | 82. ____  |
| 13. ____ | 48. ____ | 83. ____  |
| 14. ____ | 49. ____ | 84. ____  |
| 15. ____ | 50. ____ | 85. ____  |
| 16. ____ | 51. ____ | 86. ____  |
| 17. ____ | 52. ____ | 87. ____  |
| 18. ____ | 53. ____ | 88. ____  |
| 19. ____ | 54. ____ | 89. ____  |
| 20. ____ | 55. ____ | 90. ____  |
| 21. ____ | 56. ____ | 91. ____  |
| 22. ____ | 57. ____ | 92. ____  |
| 23. ____ | 58. ____ | 93. ____  |
| 24. ____ | 59. ____ | 94. ____  |
| 25. ____ | 60. ____ | 95. ____  |
| 26. ____ | 61. ____ | 96. ____  |
| 27. ____ | 62. ____ | 97. ____  |
| 28. ____ | 63. ____ | 98. ____  |
| 29. ____ | 64. ____ | 99. ____  |
| 30. ____ | 65. ____ | 100. ____ |
| 31. ____ | 66. ____ |           |
| 32. ____ | 67. ____ |           |
| 33. ____ | 68. ____ |           |
| 34. ____ | 69. ____ |           |
| 35. ____ | 70. ____ |           |

**Please complete the registration form and the Customer Survey.**

Please e-mail or fax this survey with your final exam

**AQUATIC ENVIRONMENTS CEU COURSE  
PROFESSIONAL DEVELOPMENT COURSE  
CUSTOMER SERVICE RESPONSE CARD**

NAME: \_\_\_\_\_

E-MAIL \_\_\_\_\_ PHONE \_\_\_\_\_

**PLEASE COMPLETE THIS FORM BY CIRCLING THE NUMBER OF THE APPROPRIATE ANSWER IN THE AREA BELOW.**

1. Please rate the difficulty of your course.  
Very Easy 0 1 2 3 4 5 Very Difficult
2. Please rate the difficulty of the testing process.  
Very Easy 0 1 2 3 4 5 Very Difficult
3. Please rate the subject matter on the exam to your actual field or work.  
Very Similar 0 1 2 3 4 5 Very Different
4. How did you hear about this Course? \_\_\_\_\_
5. What would you do to improve the Course?

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How about the price of the course?

Poor \_\_\_\_\_ Fair \_\_\_\_\_ Average \_\_\_\_\_ Good \_\_\_\_\_ Great \_\_\_\_\_

How was your customer service?

Poor \_\_\_\_\_ Fair \_\_\_\_\_ Average \_\_\_\_\_ Good \_\_\_\_\_ Great \_\_\_\_\_

Any other concerns or comments.

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# Aquatic Environments CEU Training Course Assignment

You will have 90 days from the start of this course to have successfully completed this assignment with a score of 70% or better. You may e-mail the answers to TLC, info@tlch2o.com, you can find a copy of this assignment in Word on the Assignment Page on TLC's website or fax the answers to TLC (928) 272-0747. You can find online assistance for this course on the in the Search function on Adobe Acrobat PDF to help find the answers.

## Answer Key in the front.

Please pick the best answer.

### Plant Identification Section

- A. Filamentous Algae
- B. Stoneworts
- C. Chara
- D. Nitella
- E. Duckweed
- F. Watermeal
- G. Water Hyacinth
- H. Coontail
- I. Bladderwort
- J. Fragrant Waterlilies
- K. White Waterlilies
- L. Spatterdock
- M. Watershield
- N. Floating-Leaved Pondweed
- O. Water Pennywort
- P. Pickerelweed
- Q. Frogbit
- R. Alligatorweed
- S. Smartweed
- T. Arrowhead
- U. Water Primrose
- V. Cattails
- W. Bulrushes

- X. Alders
- Y. Maidencane
- Z. Southern Watergrass
- A1. Naiads
- B1. Parrotfeather
- C1. Eurasian Watermilfoil
- D1. Broadleaf Watermilfoil
- E1. Elodeas
- F1. Fanworts
- G1. Pondweeds
- H1. None of the Above

1. \_\_\_\_\_



2. \_\_\_\_\_



3. \_\_\_\_\_



7. \_\_\_\_\_



4. \_\_\_\_\_



8. \_\_\_\_\_



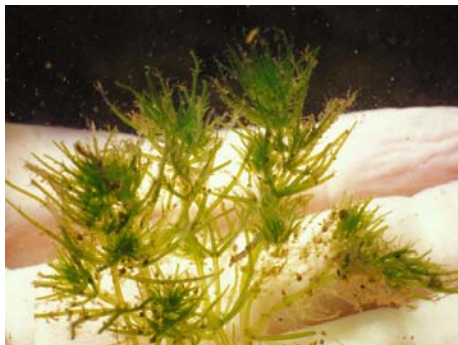
5. \_\_\_\_\_



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6. \_\_\_\_\_



10. \_\_\_\_\_



11. \_\_\_\_\_



15. \_\_\_\_\_



12. \_\_\_\_\_



16. \_\_\_\_\_



13. \_\_\_\_\_



17. \_\_\_\_\_



14. \_\_\_\_\_



18. \_\_\_\_\_



**Commonly used terms, most will come from the Glossary Section**

19. A plant that traps and ingests insects for nutrition.  
A. Marginal plant  
B. Submerged plant  
C. Invasive plant  
D. Carnivorous plant  
E. None of the Above
20. Aquatic plants that are submerged or rooted 12" to 36" in depth.  
A. Marginal plant  
B. Submerged plant  
C. Invasive plant  
D. Deep water plant  
E. None of the Above
21. A vigorously growing plant that will quickly overwhelm native or slower growing plants.  
A. Marginal plant  
B. Submerged plant  
C. Invasive plant  
D. Deep water plant  
E. None of the Above
22. A plant that requires permanently moist or wet conditions.  
A. Marginal plant  
B. Submerged plant  
C. Invasive plant  
D. Deep water plant  
E. None of the Above
23. A plant that remains submerged below the water line.  
A. Marginal plant  
B. Submerged plant  
C. Invasive plant  
D. Deep water plant  
E. None of the Above
24. A plant that is grown in normal soil conditions.  
A. Marginal plant  
B. Submerged plant  
C. Terrestrial plant  
D. Deep water plant  
E. None of the Above
25. Forward or upward.  
A. Apocarpous  
B. Apiculate  
C. Antrorse  
D. Apical bud  
E. None of the Above
26. Having flowers without petals; having no corolla.  
A. Apocarpous  
B. Apiculate  
C. Antrorse  
D. None of the Above

27. The tip or top of a thing at the tip or summit.  
A. Apocarpous  
B. Apiculate  
C. Antrorse  
D. Apical  
E. None of the Above
28. The principal growing point of the stem.  
A. Apocarpous  
B. Apiculate  
C. Antrorse  
D. Apical bud  
E. None of the Above
29. Terminated abruptly by a small, distinct point, an apiculus or apicule.  
A. Apocarpous  
B. Apiculate  
C. Antrorse  
D. Apical bud  
E. None of the Above
30. Having separate carpels.  
A. Apocarpous  
B. Apiculate  
C. Antrorse  
D. Apical bud  
E. None of the Above
31. Having joints; jointed; provided with places where separation may take place.  
A. Attenuate  
B. Articulate  
C. Asepalous  
D. Ascending  
E. None of the Above
32. Rising or curving upward.  
A. Attenuate  
B. Articulate  
C. Asepalous  
D. Ascending  
E. None of the Above
33. Without sepals.  
A. Attenuate  
B. Articulate  
C. Asepalous  
D. Ascending  
E. None of the Above
34. Any form of reproduction that does not require the union of male and female reproductive material.  
A. Attenuate  
B. Articulate  
C. Asepalous  
D. Asexual reproduction  
E. None of the Above

35. Gradually narrowed to a long point at apex or base.
- A. Attenuate
  - B. Articulate
  - C. Asepalous
  - D. Ascending
  - E. None of the Above
36. Any ear-like lobed appendages.
- A. Attenuate
  - B. Articulate
  - C. Asepalous
  - D. Ascending
  - E. None of the Above
37. Self-fertilization, pollination of a flower by its own pollen.
- A. Aquatic vascular plants
  - B. Autogamy
  - C. Aril
  - D. Arcuate
  - E. None of the Above
38. An additional covering that forms on some seeds after fertilization, and developing from the stalk of the ovule.
- A. Aquatic vascular plants
  - B. Autogamy
  - C. Aril
  - D. Arcuate
  - E. None of the Above
39. Aquatic plants containing the conductive vascular tissue, phloem and xylem.
- A. Aquatic vascular plants
  - B. Autogamy
  - C. Aril
  - D. Arcuate
  - E. None of the Above
40. Bent or curved in the form of a bow.
- A. Aquatic vascular plants
  - B. Autogamy
  - C. Aril
  - D. Arcuate
  - E. None of the Above
41. Growth promoting hormones that cause cell elongation, and are responsible for many developmental responses including phototropism.
- A. Aquatic vascular plants
  - B. Autogamy
  - C. Aril
  - D. Auxins
  - E. None of the Above
42. A stiff, bristlelike appendage, usually at the end of a structure.
- A. Axillary bud
  - B. Awn
  - C. Axil
  - D. None of the Above

43. The angle found between any two organs or structures.
- A. Axillary bud
  - B. Awn
  - C. Axil
  - D. Axillary
  - E. None of the Above
44. The junction of the leaf or petiole and the stem.
- A. Axillary bud
  - B. Awn
  - C. Axil
  - D. Axillary
  - E. None of the Above
45. In an axil, growing in an axil, as buds.
- A. Axillary bud
  - B. Awn
  - C. Axil
  - D. Axillary
  - E. None of the Above
46. Arising from the above junction.
- A. Axillary bud
  - B. Awn
  - C. Axil
  - D. Axillary
  - E. None of the Above
47. A bud, capable of developing into a lateral shoot, present in the angle between the stem and a leaf.
- A. Axillary bud
  - B. Awn
  - C. Axil
  - D. Axillary
  - E. None of the Above
48. The outermost covering of trees and some plants. This is composed of the cuticle or epidermis, the outer bark or cortex, and the inner bark or fiber.
- A. Bay
  - B. Bark
  - C. Bases
  - D. Bayou
  - E. None of the Above
49. A part of a sea or lake indenting the shore line; the word is often applied to very large tracts of water around which the land forms a curve, as Hudson's Bay.
- A. Barbel
  - B. Bayou
  - C. Bay
  - D. Barbellate
  - E. None of the Above

50. A marshy inlet or outlet of a lake, river, etc.; also a backwater.
- A. Barbel
  - B. Bayou
  - C. Bay
  - D. None of the Above
51. Whisker-like growths around the mouth, used for finding food and communication; a sensory organ.
- A. Barbel
  - B. Bayou
  - C. Bay
  - D. Barbellate
  - E. None of the Above
52. Provided, usually laterally, with fine, short points or barbs.
- A. Barbel
  - B. Bayou
  - C. Bay
  - D. Barbellate
  - E. None of the Above
53. Any fleshy simple fruit with one or more seeds and a skin, as a tomato, cranberry, banana, grape, etc.; a several-sided indehiscent fruit with a fleshy pericarp and without a stony layer surrounding the seeds.
- A. Berry
  - B. Bilateral
  - C. Bilabiate
  - D. Bifid
  - E. None of the Above
54. A plant requiring two years in which to complete its life cycle, the first year growing only vegetatively, the second flowering, fruiting, then dying.
- A. Berry
  - B. Bilateral
  - C. Bilabiate
  - D. Biennial
  - E. None of the Above
55. Forked; divided by a cleft.
- A. Berry
  - B. Bilateral
  - C. Bilabiate
  - D. Bifid
  - E. None of the Above
56. Having two lips, as a bilabiate corolla of a flower.
- A. Berry
  - B. Bilateral
  - C. Bilabiate
  - D. Bifid
  - E. None of the Above

57. Having two sides.  
A. Berry  
B. Bilateral  
C. Bilabiate  
D. Bifid  
E. None of the Above
58. Said of corolla or calyx (or flower) when divisible into equal halves in one plane only; zygomorphic.  
A. Berry  
B. Bilateral  
C. Bilabiate  
D. None of the Above
59. Natural environment of an organism.  
A. Bracteole  
B. Bracteolate  
C. Bisexual  
D. Biotope  
E. None of the Above
60. Leaf formed of several leaflets set on either side of the petiole.  
A. Bracteole  
B. Bracteolate  
C. Bisexual  
D. Bipinnate  
E. None of the Above
61. Having both female and male reproductive organs present and functional in the same flower; hermaphrodite; amphisporangiate; said of a plant having all bisexual flowers.  
A. Bracteole  
B. Bracteolate  
C. Bisexual  
D. Bipinnate  
E. None of the Above
62. Furnished with bracteoles.  
A. Bracteole  
B. Bracteolate  
C. Bisexual  
D. Bipinnate  
E. None of the Above
63. A small bract; especially one on a floral axis.  
A. Bracteole  
B. Bracteolate  
C. Bisexual  
D. Bipinnate  
E. None of the Above
64. The leaf of a plant, especially grass; the flat or expanded portion of a leaf; lamina.  
A. Bloom  
B. Blossom  
C. Blade  
D. Bog  
E. None of the Above

65. A blossom; the flower of a plant; an expanded bud; the opening of flowers in general, leaves, flowers, or fruits.

- A. Bloom
- B. Blossom
- C. Blade
- D. Bog
- E. None of the Above

66. A flower or bloom, esp. of a fruit bearing plant. A state or time of flowering, literally, and figuratively.

- A. Bloom
- B. Blossom
- C. Blade
- D. None of the Above

67. A quagmire covered with grass or other plants; wet, spongy ground; a small marsh; plant community on wet, very acid peat.

- A. Bloom
- B. Blossom
- C. Blade
- D. Bog
- E. None of the Above

68. Lowlands along streams and rivers, usually on alluvial floodplains that are periodically flooded.

- A. Bloom
- B. Blossom
- C. Blade
- D. Bottomland
- E. None of the Above

69. Having no stem or seemingly without a stem.

- A. Acaulescent
- B. Achene
- C. Absorption
- D. Abaxial
- E. None of the Above

70. Sepal and petal organs found on flowers. The sepals and petals are not essential for pollination but may aid in attracting insects or other organisms.

- A. Acaulescent
- B. Achene
- C. Absorption
- D. Accessory flower parts
- E. None of the Above

71. That surface of any structure which is remote or turned away from the axis, such as the lower surface of a leaf.

- A. Acaulescent
- B. Achene
- C. Absorption
- D. Abaxial
- E. None of the Above

72. The process by which a filter media traps unwanted molecules.
- A. Acaulescent
  - B. Achene
  - C. Absorption
  - D. Abaxial
  - E. None of the Above
73. Any small, dry fruit with one seed whose outer covering (pericarp) does not burst when ripe.
- A. Acaulescent
  - B. Achene
  - C. Absorption
  - D. Abaxial
  - E. None of the Above
74. Slender and pointed; needle-like and with a sharp point.
- A. Adaxial
  - B. Acuminate
  - C. Acumen
  - D. Actinomorphic
  - E. None of the Above
75. Developing upward from the base toward the apex.
- A. Adaxial
  - B. Acuminate
  - C. Acumen
  - D. Actinomorphic
  - E. None of the Above
76. Descriptive of a flower or set of flower parts which can be cut through the center into equal and similar parts along two or more planes; having radial symmetry.
- A. Adaxial
  - B. Acuminate
  - C. Acumen
  - D. Actinomorphic
  - E. None of the Above
77. A prickle growing from bark.
- A. Adaxial
  - B. Acuminate
  - C. Acumen
  - D. Aculeus
  - E. None of the Above
78. The point of an acuminate leaf.
- A. Adaxial
  - B. Acuminate
  - C. Acumen
  - D. Actinomorphic
  - E. None of the Above
79. Drawn out into a long point; tapering point.
- A. Adaxial
  - B. Acuminate
  - C. Acumen
  - D. Actinomorphic
  - E. None of the Above

80. Pertaining to the side of an organ toward the axis, such as the upper surface of a leaf.
- A. Adaxial
  - B. Acuminate
  - C. Acumen
  - D. Actinomorphic
  - E. None of the Above
81. A natural division of a plant stem.
- A. Branchlet
  - B. Branch
  - C. Bubble nest
  - D. Bristle
  - E. None of the Above
82. A small usually terminal branch.
- A. Branchlet
  - B. Branch
  - C. Bubble nest
  - D. Bristle
  - E. None of the Above
83. An aquarium set up for the breeding of fish.
- A. Fin
  - B. Divisionary
  - C. Bubble nest
  - D. Fish Bin
  - E. None of the Above
84. Stiff, strong but slender hair or trichome.
- A. Branchlet
  - B. Branch
  - C. Bubble nest
  - D. Bristle
  - E. None of the Above
85. A term used for a nest which is constructed of tiny air bubbles, produced by the male fish. It is used to protect the eggs and fry. Members of the family Anabantidae are the most widely known users of such nests.
- A. Duckweed
  - B. Chara
  - C. Bubble nest
  - D. Rock Nest
  - E. None of the Above
86. A small swelling or projection on a plant, from which a shoot, cluster of leaves, or flowers develops; a rudimentary, undeveloped shoot, leaf, or flower; gemma.
- A. Buffer
  - B. Caducous
  - C. Bullate
  - D. Bud
  - E. None of the Above

87. A substance added to the water to help maintain the pH value.
- A. Buffer
  - B. THM
  - C. SOC
  - D. VOC
  - E. None of the Above
88. A specialized underground bud that sends down roots and consists of a very short stem covered with leafy scales or layers which store water and nutrients, the whole enclosing next year's bud.
- A. Buffer
  - B. Caducous
  - C. Bullate
  - D. Bulb
  - E. None of the Above
89. Blistered, bubbled or puckered in appearance.
- A. Buffer
  - B. Caducous
  - C. Bullate
  - D. Bulb
  - E. None of the Above
90. Plant part such as a sepal, petal, or leaf, that falls off quickly or early.
- A. Buffer
  - B. Caducous
  - C. Bullate
  - D. Bulb
  - E. None of the Above
91. Tube formed by wholly or partially fused sepals. Not the floral tube of an epigynous or perigynous flower.
- A. Cambium
  - B. Campanulate
  - C. Callus
  - D. Calyx tube
  - E. None of the Above
92. The layer of tissue between the bark and wood in woody plants, from which new wood and bark develops.
- A. Cambium
  - B. Campanulate
  - C. Callus
  - D. Calyx
  - E. None of the Above
93. Bell-shaped, usually applied to calyx and corolla.
- A. Cambium
  - B. Campanulate
  - C. Callus
  - D. Calyx
  - E. None of the Above

94. A hard protuberance or callosity; new tissue covering a wound.
- A. Cambium
  - B. Campanulate
  - C. Callus
  - D. Calyx
  - E. None of the Above
95. The outer covering of a flower external to the corolla, which it encloses, and consisting of a whorl of leaves, or sepals, usually of a green color and less delicate in texture than the corolla.
- A. Cambium
  - B. Campanulate
  - C. Callus
  - D. Calyx
  - E. None of the Above
96. Shaped like the keel of a ship; having a longitudinal prominence on the back, like a keel; applied to a calyx, corolla or leaf.
- A. Carinate
  - B. Cancellate
  - C. Carpels
  - D. Carpel
  - E. None of the Above
97. A simple pistil, regarded as a modified leaf; also, any of the two or more carpels that unite to form a compound pistil; the unit of structure of the female portion of a flower.
- A. Carinate
  - B. Cancellate
  - C. Carpels
  - D. Carpel
  - E. None of the Above
98. Female sex organs. They contain the Ovules which become seeds when mature.
- A. Carinate
  - B. Cancellate
  - C. Carpels
  - D. Carpel
  - E. None of the Above
99. Latticed, or resembling a latticed construction, usually said of a surface such as that of an achene or seed.
- A. Carinate
  - B. Cancellate
  - C. Carpels
  - D. Carpel
  - E. None of the Above
100. Resembling hair in the manner of growth; very slender, threadlike.
- A. Carinate
  - B. Cancellate
  - C. Carpels
  - D. Capillary
  - E. None of the Above

**You are finished with your assignment. Thank you for your business and let me know how you were treated. Your input is important to me.  
Professor Durbin.**

**If you need this graded and mailed back to you in 48 hours, add a rush fee of \$50.00. This fee may not cover the postage charges.**

**Grading Information**

In order to maintain the integrity of our courses we do not distribute test scores, percentages or questions missed. Our exams are based upon pass/fail criteria with the benchmark for successful completion set at 70%. Once you pass the exam, your record will reflect a successful completion and a certificate will be issued to you.