This worksheet must be completed in its entirely for a passing grade. Be attentive to detail and precise with your answers. Print neatly. This worksheet is due on ____________, Assignments handed in late will not be accepted.

PART A-KNOT REVIEW Read the article posted on the rock climbing web page: http://opp.uoregon.edu/climbing/climb.html and answer the following questions.

1. List the three categories of knots and describe the function of each category. (3 pts.)
   a) .................................................................................................................................
   b) .................................................................................................................................
   c) .................................................................................................................................

2. In selecting a knot for climbing, the strength of a knot is obviously important. It should not, however, be the deciding factor. Name 3 other factors which are important in knot selection. (3 pts.)
   a) .................................................................................................................................
   b) .................................................................................................................................
   c) .................................................................................................................................

3. Discuss the main reason each of why the following knots are not used for tying in to the climbing rope. (2 pts.)
   single bowline: ...........................................................................................................
   overhand follow through: ...........................................................................................

4. When making a knot, the tail should be no smaller than _______ inches.

PART B-EQUIPMENT REVIEW

1. How should the gate of a carabiner be oriented when clipped into a climbing anchor, harness, etc.(1 pt)
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2. Name 1 advantage and 1 disadvantage of sewn (vs. tied) runners and slings. (2 pts.)
   advantage: ........................................................................................................................
   disadvantage: ...................................................................................................................

3. Guidelines for retiring a rope from use are discussed in class. What are they? (2.5 pts.)
   From normal weekend use retire the rope after ..............................................................
   After a long fall of great severity retire the rope ...................................................................

4. Cord used to make a prussick or klemheist should be at least _______mm (smaller/bigger) than the rope it’s attached to.

5. Name 2 conditions when you should always wear a helmet when rock climbing. (2 pts.)
   a) ........................................................................................................................................
   b) ........................................................................................................................................

PART C- ANCHORS

1. The acronym ERNEST is used to describe/evaluate an anchor system. Write what each letter stands for AND discuss (thoroughly) what is meant by each (4 pts.)
   E ........................................................................................................................................
   R ........................................................................................................................................
   NE ........................................................................................................................................
   S ........................................................................................................................................
   T ........................................................................................................................................

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2. An anchor system consists of several anchor points joined together. What is the biggest drawback to utilizing the self-equalizing slider knot, especially with a very long sling? (1 pt.)

3. Draw 3 ways to equalize a 2-point anchor system. Discuss the importance of using the correct angle between each piece. Do not include the American Triangle. (6 pts.)

4. Draw the American Triangle configuration of anchor construction. (3 pts.)

5. When considering that the force on an anchor system depends on a) how the force is distributed among anchor points, and b) the angle at the bottom of the sling, why should one avoid using the American Triangle? (3 pts.)

PART D - RESCUE
1. You are belaying a leader who falls near the end of the first pitch of a climb. Describe or draw and label the steps involved with escaping from the system so that you can go for help. (10 pts.)
PART E - RAPPELLING

Statistically, rappelling is climbing's 2nd most dangerous process, close behind leader accidents. As a result, it is vital that you "attend to the details" while rappelling. The following questions address rappelling safety.

1. Your decision to rappel should be made before you begin to climb (unless you have to rappel part way up the climb due to inclement weather or unforeseen circumstances). What are 2 things you need to know ahead of time about your rappel route? (2 pts.)
   a) ........................................................................................................................................................................
   b) ........................................................................................................................................................................

2. When rappelling from a fixed anchor, a minimum of _____ nuts, bolts, or pitons are a must (1 pt.)

3. What are 3 things to consider when transitioning from being anchored in after climbing to rappelling? (3 pt)
   a) ........................................................................................................................................................................
   b) ........................................................................................................................................................................
   c) ........................................................................................................................................................................

4. You have just completed the 2nd of 3 rappels. When you attempt to pull the ropes, it is clear that they are solidly jammed. No matter what you try they do not dislodge. Describe how you would proceed to free them. Assume that the end of each rappel rope is on the ledge with you. (8 pts.)
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PART F- TRANSPORTATION OF THE INJURED OR SICK

1. What are three examples of carries as demonstrated in class? Describe each.
   A.
   B.
2. What is the ideal number of people needed to “efficiently” carry a litter?