



ROCKY MOUNTAIN DIVISION
 Professional Ski Instructors of America
 American Association of Snowboard Instructors

ADAPTIVE ALPINE LEVEL 1 & 2 STUDY GUIDE

BI-SKI & MONO-SKI

Revision 07-22-19

Name: _____

This study guide is designed to help candidates prepare for the online and on-hill adapted alpine exams and is also a valuable learning resource for anyone who desires to increase their knowledge teaching adapted alpine skiing to guests with cognitive diagnoses and those with low or no vision.

You must take the Adaptive Alpine Level 1 & 2 online exam for Bi-ski & Mono-ski at least one week before the on-hill exam.

Note: The Americans with Disabilities Act (ADA) requires that testing entities such as PSIA-RM-AASI make "reasonable accommodations" for qualified candidates with disabilities (whether physical or cognitive) and to the extent that they would not "fundamentally alter" the services being provided. Members with disabilities who are considering applying for an education course or certification exam must contact PSIA-RM-AASI at 970-879-8335 at least four weeks in advance of a scheduled course or exam to provide notice of their requested reasonable accommodation and discuss their situations. This allows PSIA-RM-AASI to assess your request for a reasonable accommodation and to plan for reasonable accommodations, if necessary. Requests for accommodations will be considered on a case-by-case basis.

The essential eligibility requirements for each Adaptive Alpine Level 1 & 2 course and exam are presented in the PSIA-RM-AASI Adaptive Alpine Level 1 & 2 Exam Material. The standards are national in scope and their maintenance is necessary in the interests of public safety, effectiveness, value for the consumer, and guest/employer expectations.

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Local and program regulations and safety guidelines take precedence over this information. It is in your best interest to exercise due diligence in determining the appropriateness of the information for your particular circumstances. In addition, please take into account any and all factors that may affect your lesson. This includes but is not limited to: the health, well-being and fitness of the student; weather conditions; terrain; other people on the slope; your own abilities, as well as those of your student and anyone who may accompany you.

This guideline provides links to other resources as well as websites owned by or maintained on behalf of third parties. The content of any such third-party source or site is not within our control, and we cannot and will not take responsibility for the information in them, nor should any references to them be considered any endorsement by PSIA-RM-AASI.

You can fill out this form by hand or electronically. If you want to fill it in by hand, simply print this document and write in your answers. If you choose to fill this form out electronically, be sure to save the document.

All answers can be found in the following resources:

PSIA-RM-AASI
ADAPTIVE ALPINE LEVEL 1 & 2 EXAM MATERIAL
Free download <https://www.psia-rm.org/education/>

PSIA-RM-AASI
ADAPTIVE ENCYCLOPEDIA
Free download

PSIA-RM-AASI
ADAPTIVE INFORMATION GUIDE: BI-SKI & MONO-SKI
Free download <https://www.psia-rm.org/education/>

Professional Ski Instructors of America. *Adaptive Alpine Technical Manual*, 2017, American Snowsports Education Association, Inc.

Professional Ski Instructors of America. *Alpine Technical Manual*, 2014 American Snowsports Education Association, Inc.

Professional Ski Instructors of America & American Association of Snowboard Instructors. *Core Concepts for Snowsports Instructors*. The Professional Ski Instructors of America Education Foundation, 2001.

Professional Ski Instructors of America and American Association of Snowboard Instructors. *Teaching Snowsports Manual*, 2018 American Snowsports Education Association, Inc.

Professional Ski Instructors of America and American Association of Snowboard Instructors. *Children's Instruction Manual*, Second Edition, 2008

Teaching Section

Matching: Match the following words with their definition. Each definition is used only once.

Source: *Core Concepts, Children's Instruction Manual, Adaptive Alpine Exam Material*

- | | |
|------------------------------------|---|
| 1. ___ Visual | A. Teaching style in which the instructor directs the students to a specific answer through a series of questions or experiences |
| 2. ___ Open question | B. A teaching style in which the instructor outlines the parameters of an assigned activity. Students are free to execute and practice the activity within the given boundaries |
| 3. ___ Teaching for transfer | C. Piaget's stage of development from birth to age 2 |
| 4. ___ Demonstration | D. A formula that combines what you want the student to learn with the situation you create to encourage learning and the appropriate terrain for success |
| 5. ___ Active experimenter | E. Person who is self-smart |
| 6. ___ Task | F. A system for identifying comprehensive categories of human capabilities |
| 7. ___ Skill/drill/hill | G. A sensory preference in which the student learns best by seeing or watching |
| 8. ___ Introverted | H. Perceives details first, then the whole; asks "how?" |
| 9. ___ Multiple intelligence | I. Activities used to isolate and develop skills |
| 10. ___ Lateral learning | J. Drawing upon a student's previous learning to help with present learning |
| 11. ___ Physiological | K. Used to initiate a discussion or gain information about a student's insights and opinions |
| 12. ___ Cognitive domain | L. Related to thinking, analyzing and speaking |
| 13. ___ Sensorimotor | M. Performing a task or exercise as an example for students |
| 14. ___ Intrapersonal intelligence | N. The most pressing needs, as postulated by Abraham Maslow |
| 15. ___ Guided discovery | O. According to Jung's functioning types, this type of person is tuned into his/her inner world |

Fill-in-the-blank: Fill the blank with the appropriate terminology.*Source: Core Concepts & Adaptive Alpine Exam Material*

1. List the three categories of needs based on the Guest Centered Teaching model.

2. List Benjamin Bloom's stages of learning activities, starting from the superficial and moving towards the deeper, integrated meaning

3. Skiers with speech and language problems would be LEAST likely to use the _____ sensory preference.
4. The _____ teaching style is best suited for generating interaction between students because it clearly defines the roles of "doer" and "watcher."
5. Reaching one's potential while generating a peak experience is the level of _____ in Maslow's Hierarchy of Needs.
6. _____ questions limit discussions and are used to elicit information or confirm understanding and agreement.
7. When Abraham Maslow developed his Hierarchy of Needs, he visualized a pyramid with the most _____ needs on the bottom.
8. One of the first sensory systems to fully develop is the _____ system, which controls balance and the sense of movement. Located in the inner ear, this system provides information about the position of the head relative to the ground.
9. As the nerve cells are stimulated with movements, thoughts, or memories, a fatty substance called _____ is laid down along the pathways which link neurons in the brain and spinal cord, thus increasing the speed of neural transmission. This ongoing stimulation is the essence of "practice makes perfect."
10. Age-related declines in endurance are _____ (less/more) than declines in strength

Fill-in-the-blank: Fill the blank with the appropriate terminology.

Source: Teaching Snowsports Manual, Alpine Technical Manual, Adaptive Alpine Exam Material

1. GCT is an acronym for _____ .

2. List the four main elements of the contemporary Teaching Cycle

3. Cite the seven points of *Your Responsibility Code*

4. Verifying your student’s level of physical and cognitive understanding is part of the _____ step in the classic Teaching Cycle.

5. Cite the four main points of the Smart Style /Park Smart Program.

Multiple Choice: Mark the answer that best completes the statement or question.

Source: Core Concepts, Children's Manual, Adaptive Alpine Exam Material

1. The intelligence not included in Gardner's theory of multiple intelligences is:
 - A. Spatial
 - B. Bodily-Kinesthetic
 - C. Chemical
 - D. Logical-Mathematical
 - E. Musical-Rhythmic

2. When students are exhibiting fear, it is best to:
 - A. Convince them that their fear is imaginary.
 - B. Try to belittle their fear in a humorous way.
 - C. Acknowledge the fear with respect and respond positively to it.
 - D. Ignore the fear and let them overcome it by themselves.

3. In sensory preferences, the initials VAK stand for:
 - A. Vibration, Absorption, Kinetics
 - B. Three sensory preferences
 - C. Video, Autographic, Kinesis
 - D. Visual, Auditory, Kinesthetic
 - E. B and D

4. According to Jung's Functioning Types, a sensing person
 - A. Is easily hurt by criticism
 - B. Learns by attending to facts and data
 - C. Makes decisions based on values and inner harmony
 - D. Is very intuitive
 - E. Orients to the outer world by being flexible and spontaneous

5. The two types of activities included in the GCT model are
 - A. Abduction and adduction
 - B. Identification and facilitation
 - C. Cognitive and physical
 - D. Experiential and didactic

6. Wearing a helmet while mono or bi-skiing falls into the _____ level of Maslow's Hierarchy of Needs.
 - A. Safety/Security
 - B. Recognition/Social
 - C. Self-esteem
 - D. Self-actualization

7. Which of the following is a consideration when teaching children?
 - A. Strength
 - B. Location of center of mass
 - C. Length of limbs
 - D. A and B
 - E. A, B and C

8. In terms of sensory preferences, students who learn best by doing are considered _____ learners
 - A. Visual
 - B. Auditory
 - C. Kinesthetic

9. The _____ portion of the lesson is devoted to preparing for activity. This lesson segment often refers to muscles, but instructors also prepare student to learn though active listening and questioning.
 - A. Initial
 - B. Warm-up
 - C. Take-away
 - D. Rapport-building
 - E. Student assessment

10. In Kolb's classification of the four basic types of learners, _____ learners see the whole first, then the parts. They respond to and trust their emotions and learn best in discussions. They ask the question "why?"
 - A. Dynamic learners
 - B. Active experimenters
 - C. Analytical learners
 - D. Innovative learners

Technical Section

Matching: Match the following words with their definition. Each definition is used only once.

Source: Alpine Technical Manual

- | | |
|--------------------------------|---|
| 1. ___ Exercise line | A. The amount a ski is tilted relative to the surface of the snow and hill |
| 2. ___ Turn radius | B. Taking varying amounts of weight off the skis to manipulate and control pressure |
| 3. ___ Corresponding edges | C. Situations created for learning that start with simple actions that increase in complexity |
| 4. ___ Unweighting | D. The size of the turn |
| 5. ___ Anticipation | E. Tipping the entire body without angulation |
| 6. ___ Sidecut | F. Also called fall line |
| 7. ___ Edge angle | G. Allows a skier to move in any direction at any time |
| 8. ___ Carving | H. A position or movement in preparation for turning, in which the upper body actively faces down the hill rather than across the hill or direction ski(s) are facing |
| 9. ___ Steering | I. The muscular effort used to direct the path of the skis |
| 10. ___ Differential friction | J. The amount of “hourglass” shape or waist a ski has |
| 11. ___ Gravity zone | K. When the tails of the skis follow the tips through the turn to leave clean arcs in the snow |
| 12. ___ Center of mass | L. More friction created on one side of the axis of rotation to affect direction change |
| 13. ___ Athletic stance | M. The left edge of one ski/outrigger and the left edge on the other |
| 14. ___ Whole body inclination | N. Swing force that influences rotational movements and is affected by the distance from foot support to axis of rotation in sit skiers |
| 15. ___ Moment of inertia | O. Represents the point around which a body’s mass is equally distributed |

Fill-in-the-blank: Fill the blank with the appropriate terminology.

Source: Core Concepts

1. Stance can be affected by differences in bone length, muscle tightness or _____ (in the spine).

2. List three symptoms of autonomic dysreflexia.

3. Assessment of active range of motion (AROM) provides information about the guests' ability to _____, _____/_____ and create _____ when skiing.

4. Guests' with limited sensation are susceptible to _____ or _____.

5. When a muscle performs work while getting longer, it is called _____ contraction.

Matching: Match the following words with their definition. Each definition is used only once.

Source: Adaptive Snowsports Instruction & Adaptive Encyclopedia

- | | |
|-------------------------------|--|
| 1. ___ Anticholinergics | A. May be attached to the bi-ski for lateral support |
| 2. ___ Hypoglycemia | B. Adjustments done to ski equipment to modify a skier's normal stance |
| 3. ___ Evacuation system | C. Also known as Cerebrovascular accident (CVA) |
| 4. ___ Fixed outriggers | D. Medications that reduce anxiety |
| 5. ___ Spinal fusion | E. Removal of a limb at the joint |
| 6. ___ Canting | F. A malformation of the spinal cord during fetal development |
| 7. ___ Muscular dystrophy | G. Not enough sugar. Can be triggered by unusual exercise (skiing), delays in meals, or too much insulin |
| 8. ___ Post-polio syndrome | H. Paralysis of the lower extremities |
| 9. ___ Stroke | I. Treat bladder spasms and may cause dry mouth, constipation, tiredness, headache |
| 10. ___ Autonomic dysreflexia | J. Disorders that cause progressive and irreversible wasting of muscle tissue |
| 11. ___ Sedative | K. Required for all mono-skis and bi-skis used on chairlifts |
| 12. ___ Paraplegia | L. Potentially life-threatening hypertensive occurrence produced by the body's inability to sense and react to specific stimuli. |
| 13. ___ Linkage | M. Lingering effects of poliomyelitis, causing paralysis of muscles |
| 14. ___ Disarticulation | N. Connects the seat to the ski(s) and usually consists of moving swing arms that allow the suspension to work but restrict movement in other planes |
| 15. ___ Spina bifida | O. Surgery that fuses vertebrae to stiffen the spine |

Fill-in-the-blank: Fill the blank with the appropriate terminology.

Source: Adaptive Snowsports Instruction, Adaptive Encyclopedia, Adaptive Information Guides (Bi-Ski & Mono Ski)

1. _____ is a neurological disability where the nerve fibers become scarred, thus interrupting the transmission of messages to various body parts.
2. _____ is a class of medications that relieve muscle spasms.
3. The seat of the mono-ski or bi-ski is equivalent to a stand-up skier's _____.
4. Medium to short radius turns, upper/lower body separation and bump skiing on easy blue terrain are all objectives of the mono ski level _____ progressions.
5. _____ is the paralysis of all four limbs.
6. List the regions of the spine and the number of vertebrae in each.

7. NSAID's are a class of medications that prevent or reduce _____.
8. The two types of outriggers available to bi-skiers are called _____ outriggers and _____ outriggers.
9. For mono-skiers, the general guideline is that a heavier skier needs _____ (more/less) suspension tension, while a lighter skier needs _____ (more/less) suspension tension.
10. A bi-skier using fixed outriggers _____ (may/may not) ski independent of a tetherer.

Multiple Choice: Mark the answer that best completes the statement or question.*Source: Alpine Technical Manual & Adaptive Alpine Exam Material*

1. Garlands do NOT include which phase of the turn?
 - A. Initiation
 - B. Shaping
 - C. Finishing

2. In terms of blending skills, powder skiing generally requires:
 - A. More rotary than hardpack
 - B. Similar skill blend to bumps
 - C. More edging than hardpack
 - D. A and B
 - E. B and C

3. Any movement that increases the angle at a joint is called
 - A. Extension
 - B. Friction
 - C. Perception
 - D. Deflection
 - E. Proprioception

4. Edge change (releasing and re-engaging) occurs through _____ movements.
 - A. Flexing and Extending
 - B. Tipping
 - C. Turning
 - D. Balancing
 - E. Hopping

5. A combination of sliding and slipping as the skis move forward through a turn is called:
 - A. Skidding
 - B. Sliding
 - C. Slipping
 - D. Shaping
 - E. Sloping

Multiple Choice: Mark the answer that best completes the statement or question.

Source: Adaptive Snowsports Instruction & Adaptive Encyclopedia & Adaptive Information Guides (Bi-Ski & Mono Ski)

1. A kidney belt may be used with a bi-skier for:
 - A. Upper body stabilization
 - B. Maintaining body temperature
 - C. Keeping snow out
 - D. Aesthetics
2. Which objective is NOT typically included in the level 3 mono-ski progression?
 - A. Linked turns
 - B. Varying turn shape and size
 - C. Hip and lower body angulation
 - D. Hockey stops
3. During the dowel test, the student is in the apparatus and the balance point is found when the student can:
 - A. Lean forward and touch the front of the ski to the ground.
 - B. Pressure the tip of the ski with a slight head tip forward and pressure the tail with a slight tip backward.
 - C. Remain centered on the dowel while leaning from side to side and touching the outriggers to the ground.
 - D. Lean backward and touch the tail of the ski to the ground while using the outriggers for balance.
4. A person with athetoid cerebral palsy has:
 - A. Extraneous and uncontrolled movements
 - B. Diminished muscle tone
 - C. Muscle atrophy of the peroneals and toe extensors
 - D. Tense, contracted muscles
5. Muscular dystrophy is a group of nine main diseases including the following types:
 - A. Charcot-Marie-Tooth Disease and Spastic Ataxia
 - B. Duchenne, Facio-Scapular-Humeral and Limb Girdle
 - C. Charcot-Marie-Tooth Disease and Friedreich's Ataxia
 - D. Meningocele and Meningomyelocele
 - E. Aphasia, Dysarthria and Bell's Palsy

6. The function of the shock on a mono-ski includes controlling:
 - A. Rotary
 - B. Pressure
 - C. Edging
 - D. Steering

7. What factors determine the position of the foot tray on a mono-ski?
 - A. Contact between the thighs and the seat bottom
 - B. Spasticity
 - C. Comfort
 - D. A and B
 - E. A, B and C

8. As an instructor assisting a mono-skier after a fall, you should:
 - A. Be cautious not to put yourself, especially your back, in an awkward position.
 - B. Remove the mono-skier's outriggers.
 - C. Offer to help the skier place the mono-ski across the fall line.
 - D. A and C
 - E. A, B and C

9. Glide and slide across the slope, straight run and effective outrigger and body position while moving are all objectives of the bi-ski level _____ progression.
 - A. One
 - B. Two
 - C. Three
 - D. Four
 - E. Five

10. In terms of arm position, a mono-skier's athletic stance can be described as:
 - A. Arms as straight as possible
 - B. Upper arms hanging vertically at the sides, with a slight space between elbows and body
 - C. Lower arms hanging at the same angle as the outrigger shafts
 - D. A and B
 - E. B and C