NOTE: Text that should be deleted from the outline is displayed with a line through the text. New text is shown with a blue background. Be sure to obtain all previous updates for this product as well. Each update is released as a separate document.

The FAA recently added several new questions to the FOI test database. Many of these questions represent new topics that have never been tested before. The following update includes a great deal of new outline material as well as new questions, answers, and answer explanations that will help you increase your instructional knowledge and score high marks on the FAA Fundamentals of Instructing Knowledge Test.

If you should see any additional content on your knowledge test not represented in this update, please share that information with Gleim so that we can continue to provide the most complete knowledge test preparation experience possible. You can contact our aviation team at aviation@gleim.com. Thank you in advance for your help!

Study Unit 1 – The Learning Process

Page 22, Subunit 1.7: The following new outline content is added based on new FAA questions dealing with commercially-developed training material.

1.7 LEVELS OF LEARNING

1. Learning may be accomplished at any of four levels.
   a. The lowest level, rote learning, is the ability to repeat back what one has been taught without necessarily understanding or being able to apply what has been learned.
      1) EXAMPLE: Being able to cite the maneuvering speed of an airplane.
      2) Many students use commercially-developed training material to memorize FAA testing concepts, which is another example of rote learning.
         a) While test preparation materials may be effective in preparing students for FAA tests, the danger is that students may learn to pass a given test but fail to learn other critical information essential to safe piloting and maintenance practices.
         b) FAA inspectors and designated examiners have found that student applicants often exhibit a lack of knowledge during oral questioning, even though many have easily passed the FAA knowledge test.
         c) Because test preparation materials emphasize rote learning, instructors should stress that these materials are not designed as stand-alone learning tools. They should be considered as a supplement to instructor-led training.
Page 30, Subunit 1.7: The following new questions are added to cover the topic of commercially-developed training aids, as covered in the FOI test bank.

37. Commercially-developed test preparation material
   A. teaches higher-order thinking skills.
   B. replaces instructor-led training.
   C. places emphasis on rote learning rather than more advanced learning levels.

   Answer (C) is correct. (AIH Chap 4)
   DISCUSSION: While commercially-developed training material is a great study aid, it emphasizes rote learning rather than higher levels of learning that promote increased understanding. Commercially-developed training material should be used as a supplement to instructor-led, comprehensive training, not as a replacement for it.

   Answer (A) is incorrect. Higher-order thinking skills involve decision-making principles. Commercially-developed training material emphasizes rote learning rather than higher levels of learning that promote increased understanding. For this reason, instructor-led training is essential for the student to develop higher-order thinking skills. Answer (B) is incorrect. While commercially-developed training material is a great study aid, it cannot be used as a replacement to instructor-led training because it focuses on rote learning rather than higher levels of learning.

38. A disadvantage of using commercially-developed test preparation material is that
   A. the emphasis is on correlation learning.
   B. students may learn to pass a given test.
   C. students often exhibit a lack of knowledge during oral questioning.

   Answer (C) is correct. (AIH Chap 4)
   DISCUSSION: FAA inspectors and designated examiners have found that student applicants often exhibit a lack of knowledge during oral questioning, even though many have easily passed the FAA knowledge test. This is most often the result of student memorization rather than true concept understanding. The emphasis of test preparation materials is on rote learning rather than higher levels of learning that promote increased understanding.

   Answer (A) is incorrect. While commercially-developed training material is a great study aid, it emphasizes rote learning rather than higher levels of learning, such as correlation, that promote increased understanding. Answer (B) is incorrect. Commercially-developed training material is incredibly useful at helping students pass FAA tests. This is only a disadvantage if the student memorizes the material and fails to develop understanding of the covered topics.
Study Unit 2 – Barriers to Learning

Page 33, Subunit 2.2: To better address the subject of defense mechanisms, the subunit outline is revised as follows. This change incorporates the change made in the previous FOI update from Gleim in February of 2011.

3. Common defense mechanisms:

a. Rationalization—When a person cannot accept the real reasons for his/her own behavior, this device permits the substitution of excuses for reasons. Rationalization is a subconscious technique for justifying actions that otherwise would be unacceptable.

**Repression** – A person places uncomfortable thoughts into inaccessible areas of the unconscious mind;

1) Things a person is unable to cope with at present are pushed away to be dealt with at another time, or hopefully never to be dealt with because they faded away on their own accord.

2) The level of repression can vary from temporarily forgetting an uncomfortable thought to amnesia, where the events that triggered the anxiety are deeply buried.

3) Repressed memories do not disappear and may reappear in dreams or slips of the tongue (“Freudian slips”).

b. Flight—Students escape from frustration by taking physical or mental flight. **Denial** – Refusal to accept external reality because it is too threatening. It is the refusal to acknowledge what has happened, is happening, or will happen.

1) To flee physically, students may develop symptoms or ailments that give them excuses for removing themselves from the frustration. **Denial** is a form of repression through which stressful thoughts are banned from memory.

2) More frequent than physical flight is mental flight or daydreaming. Related to denial is minimization. When a person minimizes something, (s)he accepts what happened, but in a diluted form, usually justifying the event because “nothing bad happened.”

c. Aggression—A person can avoid a frustrating situation by means of aggressive behavior. Shouting and accusing others are typical defense mechanisms. Social pressure usually forces student aggressiveness into more subtle forms. Typically, students may **Compensation** – Process of psychologically counterbalancing perceived weaknesses by emphasizing strength in other areas;

1) Ask irrelevant questions; Students often attempt to disguise the presence of a weak or undesirable quality by emphasizing a more positive one.

2) Refuse to participate in class activities; or **Compensation** involves substituting success in a realm of life other than the realm in which the person suffers a weakness.

3) Disrupt activities.
d. Resignation—Students become so frustrated that they lose interest and give up. Projection—An individual places his/her own unacceptable impulses onto someone else. A person relegates the blame for personal shortcomings, mistakes, and transgressions to others.  

1) They may no longer believe it profitable or even possible to work further. The student pilot who fails a flight exam and says, “I failed because I had a poor examiner” believes the failure was not due to a lack of personal skill or knowledge.  

2) Resignation usually occurs when the student has completed early lessons without grasping the fundamentals and then becomes bewildered and lost in the advanced phase. This student projects blame onto an “unfair” examiner.  

e. Projection—An individual places his/her own unacceptable impulses onto someone else. A person relegates the blame for personal shortcomings, mistakes, and transgressions to others. Rationalization—When a person cannot accept the real reasons for his/her own behavior, this device permits the substitution of excuses for reasons. Rationalization is a subconscious technique for justifying actions that otherwise would be unacceptable.  

1) The student pilot who fails a flight exam and says, “I failed because I had a poor examiner” believes the failure was not due to a lack of personal skill or knowledge.  

2) This student projects blame onto an “unfair” examiner.  

f. Reaction formation—A person fakes a belief opposite to his/her true belief because the true belief causes anxiety. The person feels an urge to do or say something and then actually does or says something that is the opposite of what (s)he really wants.  

g. Fantasy—Occurs when a student engages in daydreams about how things should be rather than doing anything about how things are. The student uses his/her imagination to escape from reality into a fictitious world—a world of success or pleasure.  

1) Fantasy provides a simple and satisfying escape from problems, but if a student gets sufficient satisfaction from daydreaming, (s)he may stop trying to achieve goals altogether.  

2) Lost in the fantasy, the student spends more time dreaming about being a successful pilot than working toward the goal.  

3) When carried to extremes, the worlds of fantasy and reality can become so confused that the dreamer cannot distinguish one from the other.  

h. Displacement—Results in an unconscious shift of emotion, affect, or desire from the original object to a more acceptable, less threatening substitute.  

1) Displacement avoids the risk associated with feeling unpleasant emotions and puts them somewhere other than where they belong, similar to repression.
Page 35, Subunit 2.2: The following questions in this subunit have been modified to better match the defense mechanism coverage in the Aviation Instructor’s Handbook.

4. When a student uses excuses to justify inadequate performance, it is an indication of the defense mechanism known as

A. flight fantasy.
B. aggression displacement.
C. rationalization.

Answer (C) is correct. (AIH Chap 1)

DISCUSSION: Rationalization is a subconscious technique for justifying unacceptable actions or performance. This allows a student to substitute excuses for reasons and make those excuses plausible and acceptable to themselves.

Answer (A) is incorrect. Flight is the defense mechanism in which the student escapes (either physically or mentally) from a frustrating experience. Fantasy is the defense mechanism in which the student escapes (either physically or mentally) from a frustrating experience. Answer (B) is incorrect. Aggression is the defense mechanism in which the student uses aggressive behavior to deal with feelings of frustration. Displacement is the defense mechanism in which the student shifts emotion, affect, or desire from the original object to a more acceptable, less threatening substitute.

5. Taking physical or mental flight. Fantasy is a defense mechanism students use when they

A. want to escape from frustrating situations.
B. cannot accept the real reasons for their behavior.
C. lose interest during the advanced stages of training.

Answer (A) is correct. (AIH Chap 1)

DISCUSSION: The defense mechanism of flight allows a student to escape from a frustrating situation. This escape can be physical flight (absenteeism, illness, etc.) or mental flight (daydreaming).

Answer (B) is incorrect. If a student cannot accept the real reasons for his/her behavior, (s)he may rationalize, not take flight. Answer (C) is incorrect. A student who loses interest during the advanced stages of training may resign, not take flight, and give up. This is common if a student has not understood the fundamentals. Students who place blame on someone or something other than themselves are displaying the defense mechanism of projection.

6. When students subconsciously use the defense mechanism called rationalization, they

A. use excuses to justify acceptable behavior.
B. cannot accept the real reasons for their behavior.
C. develop symptoms that give them excuses for removing themselves from frustration, fake a belief opposite to their true belief because the true belief causes anxiety.

Answer (B) is correct. (AIH Chap 1)

DISCUSSION: Rationalization is a subconscious technique for justifying unacceptable actions or performance. This allows a student to substitute excuses for reasons and make those excuses plausible and acceptable to themselves.

Answer (A) is incorrect. In rationalization, excuses are used to justify unacceptable, not acceptable, behavior. Answer (C) is incorrect. When students develop symptoms that give them excuses for removing themselves from frustration, they are using the defense mechanism of physical flight. When students fake a belief opposite to their true belief, they are displaying the defense mechanism of reaction formation. This is done because their true belief causes them anxiety.

7. When a student engages in daydreaming, it is the defense mechanism of

A. flight compensation.
B. fantasy.
C. avoidance denial.

Answer (A B) is correct. (AIH Chap 1)

DISCUSSION: A student engaging in daydreaming is an example of flight or mental escape fantasy or mental escape.

Answer (B A) is incorrect. Fantasy is not a defense mechanism in and of itself, yet it is involved in the defense mechanism of flight: fantasy in mental flight (daydreaming). Through compensation, students often attempt to disguise the presence of a weak or undesirable quality by emphasizing a more positive one. Answer (C) is incorrect. Avoidance is not a defense mechanism in and of itself, yet it is involved in the defense mechanism of flight: avoidance in physical flight. Denial is a refusal to accept external reality because it is too threatening. It is the refusal to acknowledge what has happened, is happening, or will happen.
8. When students display the defense mechanism called aggression repression, they

A. become visibly angry, upset, and childish;
   refuse to accept reality.

B. may refuse to participate in class activities;
   place uncomfortable thoughts into inaccessible
   areas of the unconscious mind.

C. attempt to justify actions by asking numerous
   questions.

Answer (B) is correct. (AIH Chap 1)
DISCUSSION: Examples of subtle aggression include
students who ask irrelevant questions, refuse to participate in
class activities, or disrupt activities within the group. Aggressive
behavior is used to avoid facing failure. In repression, things a
person is unable to cope with in the present are pushed away to
be dealt with at another time, or hopefully never to be dealt with
at all because they faded away on their own accord.

Answer (A) is incorrect. Although such behavior is
characteristic of aggression, it is relatively uncommon in a
classroom due to social pressure. When students refuse to
accept reality, they are exhibiting the defense mechanism of
denial. Answer (C) is incorrect. Attempting to justify actions is
an example of rationalization.

9. When a student asks irrelevant questions or
   refuses to participate in class activities presents a
   belief opposite to what (s)he truly believes, it usually
   is an indication of the defense mechanism known as

A. flight fantasy.

B. aggression reaction formation.

C. resignation displacement.

Answer (B) is correct. (AIH Chap 1)
DISCUSSION: Examples of subtle aggression include
students who ask irrelevant questions, refuse to participate in
class activities, or disrupt activities within the group. Aggressive
behavior is used to avoid facing failure. In reaction formation, a
person fakes a belief opposite to his/her true belief because the
true belief causes anxiety.

Answer (A) is incorrect. Flight is the defense mechanism
when a person removes him/herself, physically or mentally, from
a frustrating situation. Fantasy is the defense mechanism when a
person mentally removes him/herself from a frustrating situation.
Answer (C) is incorrect. Resignation is a process of becoming
frustrated and not believing that continuing will be worthwhile;
i.e., the person is resigned to failure and gives up. Displacement
is the defense mechanism in which the student shifts emotion,
afflict, or desire from the original object to a more acceptable,
less threatening substitute.

10. When a student becomes bewildered and lost in
the advanced phase of training after completing the
early phase without grasping the fundamentals
attempts to disguise the presence of a weak or
undesirable quality by emphasizing a more positive
one, the defense mechanism is usually in the form of

A. submission projection.

B. resignation compensation.

C. rationalization.

Answer (B) is correct. (AIH Chap 1)
DISCUSSION: When a student has become frustrated, lost
interest, given up, and no longer believes it profitable or possible
to work further, resignation has taken place. A student in this
frame of mind accepts defeat. Typically, such a student has not
grasped the fundamentals and is bewildered by later lessons.
Compensation is a process of psychologically counterbalancing
perceived weaknesses by emphasizing strength in other areas.

Answer (A) is incorrect. Submission is not a defense
mechanism but may be a characteristic of resignation. Through
projection, an individual places blame for his/her own
unacceptable impulses onto someone else. Answer (C) is
incorrect. Rationalization is a process of making excuses for
unacceptable behavior.
Page 37, Subunit 2.3: The following question is added to better address the FAA’s coverage of stress in the FOI test bank. Outline coverage on this topic already exists; thus, there are no outline edits for this subunit.

19. Which would most likely be an indication that a student is reacting normally to stress?
   A. Slow learning.
   B. Inappropriate laughter or singing.
   C. Automatic response to a given situation.

Answer (C) is correct. (AIH Chap 1)

DISCUSSION: When under stress, normal individuals begin to respond rapidly and exactly, within the limits of their experience and training. Many responses are automatic, which indicates the need for proper training in emergency operations prior to an actual emergency.

   Answer (A) is incorrect. While slow learning can be a normal reaction to stress, it could also be the result of a learning plateau. This choice is not the best answer to the question because it could just as likely be the result of something else as the result of an abnormal reaction to stress.

   Answer (B) is incorrect. Inappropriate laughter or singing is an abnormal, not a normal, reaction to stress.

Study Unit 3 – Human Behavior and Effective Communications

Page 39, Subunit 3.1: The outline for this subunit is rewritten as follows to better address the topic of human needs as covered in the Aviation Instructor’s Handbook.

2. **Physiological needs** are biological needs.
   a. They consist of the need for air, food, water, and maintenance of the human body.
   b. Unless the biological needs are met, a person cannot concentrate fully on learning, self-expression, or any other tasks.
   c. Instructors should monitor their students to make sure that their basic physical needs have been met. A hungry or tired student may not be able to perform as expected.

3. **Safety and security needs** become essential after the basic biological needs are met.
   a. Security needs are about keeping oneself from harm.
   b. The aviation instructor who stresses flight safety during training mitigates feelings of insecurity.

4. **Love and belonging needs** are social needs that people pursue to overcome feelings of loneliness and alienation.
   a. Aviation students are usually out of their normal surroundings during training, and their need for association and belonging is more pronounced.
   b. Instructors should make every effort to help new students feel at ease and to reinforce their decision to pursue a career or hobby in aviation.
5. **Esteem needs** are about feeling good about oneself.
   a. Humans have a need for a stable, firmly based, high level of self-respect and respect from others.
   b. Humans get esteem in two ways: internally or externally.
      1) Internally, a person judges him/herself worthy by personally defined standards.
         a) High self-esteem results in self-confidence, independence, achievement, competence, and knowledge.
      2) Most people, however, seek external esteem through social approval and esteem from other people, judging themselves by what others think of them.
         a) External self-esteem relates to one’s reputation, such as status, recognition, appreciation, and respect of associates.
   c. When esteem needs are satisfied, a person feels self-confident and valuable as a person in the world.
      1) When these needs are frustrated, the person feels inferior, weak, helpless, and worthless.
      2) Esteem needs not only have a strong influence on the instructor-student relationship but also may be the main reason for a student’s interest in aviation training.

6. **Cognitive and aesthetic needs** include the need to know and understand and the emotional results of achievement.
   a. Humans have a deep need to understand what is going on around them. If a person understands what is going on, (s)he can either control the situation or make informed choices about what steps might be taken next.
   b. The brain even reinforces this need by giving humans a rush of dopamine whenever something is learned, which accounts for that satisfying “eureka!” moment, such as when a student pilot completes his/her first solo flight.
   c. Aesthetic needs (e.g., how well something is liked) can factor into the student-instructor relationship. If an instructor does not “like” a student, this subtle feeling may affect the instructor’s ability to teach that student, and vice versa.

7. **Self-actualization needs** include a person’s need to be and do what the person was “born to do.”
   a. These needs are only triggered when all underlying needs are met.
   b. Self-actualized people are characterized by
      1) Being problem-focused.
      2) Incorporating an ongoing freshness of appreciation of life.
      3) A concern about personal growth.
      4) The ability to have peak experiences.
   b. Helping a student achieve his/her individual potential in aviation training offers the greatest challenge as well as the greatest reward to the instructor.
Page 40, Subunit 3.3: The outline for this subunit is revised as follows to better address the topic of risk management as covered in the Aviation Instructor’s Handbook.

2. Risk management is the part of the decision-making process that relies on situational awareness, problem recognition, and good judgment to reduce risks associated with each flight.

a. The four fundamental risk elements in the ADM process that comprise any given aviation situation are the

1) **Pilot (PIC)** – The pilot’s fitness to fly must be evaluated, including competency in the aircraft, currency, and flight experience.

2) **Aircraft** – The aircraft performance, limitations, equipment, and airworthiness must be determined.

3) **Environment** – Factors such as weather and airport conditions must be examined.

4) **Mission (type of operation) External pressures** – The purpose of the flight is a factor that influences the pilot’s decision to begin or continue the flight.

b. Risk management involves two broad steps: risk assessment and risk mitigation.

1) Every flight has hazards and some level of risk associated with it. It is critical that pilots and especially students are able to differentiate in advance between a low-risk flight and a high-risk flight and then establish a review process and develop risk mitigation strategies to address flights throughout that range.

2) All identified risks should be addressed in proper risk management. Risks must be either accepted or mitigated in some way.

   a) Common mitigation strategies include taking along a more experienced pilot or flight instructor, delaying the flight, or canceling the flight altogether.

Pages 44-45, Subunit 3.1: The questions for this subunit are revised as follows to better address the topic of human needs as covered in the Aviation Instructor’s Handbook.

1. Before a student can concentrate on learning, which human needs must be satisfied?

   A. **Safety**  **Security**.
   B. **Physical**  **Biological**.
   C. **Security**  **Psychological**.

   **Answer (B) is correct.** (AIH Chap 1)
   **DISCUSSION:** Physical needs are the most basic of the human needs. Thus, they must be met before any learning can take place. Until the needs of food, water, rest, etc., are satisfied, the student cannot concentrate on learning.
   Physiological, or biological, needs consist of the need for air, food, water, and maintenance of the human body. Unless the biological needs are met, a person cannot concentrate fully on learning, self-expression, or any other tasks.
   
   Answer (A) is incorrect. Physical, not safety, needs must be satisfied before a student can concentrate on learning. Safety needs are protection from danger, threat, and deprivation. The need for security is only a driving force once all of the physiological needs are met. Answer (C) is incorrect. Physical, not security, needs must be satisfied before a student can concentrate on learning. Security (or safety) needs are protection from danger, threat, and deprivation. Psychological needs, such as belonging and esteem, are only important after the basic biological and security needs are met.
2. After individuals are physically comfortable and have no fear for their safety, which human needs become the prime influence on their behavior?

A. Social Esteem.
B. Physical Self-Actualization.
C. Egoistic Belonging.

Answer (A C) is correct. (AIH Chap 1)

**DISCUSSION:** The order of human needs according to Abraham Maslow are (1) physical, (2) safety, (3) social, (4) egoistic, and (5) self-actualization. In this hierarchy, social needs come after physical and safety needs are satisfied. When individuals are physically comfortable and do not feel threatened, they seek to satisfy their social needs of belonging, that is, to overcome feelings of loneliness and alienation.

Answer (B A) is incorrect. The question states that the individuals are physically comfortable. The need of esteem follows after the need of belonging. Generally speaking, a person must feel accepted by peers to develop stable, positive self-esteem.

Answer (C B) is incorrect. Egoistic needs have the fourth priority, not the third priority as the question asks. The needs of self-actualization are only applicable after all other human needs have been met.

3. Which of the student's human needs offer the greatest challenge to an instructor?

A. Social Physiological.
B. Egoistic Psychological.
C. Self-fulfillment Self-Actualization.

Answer (C) is correct. (AIH Chap 1)

**DISCUSSION:** The greatest challenge for an instructor is to help the student realize his/her potentialities for continued development. This is helping the student meet the need for self-fulfillment. When all of the foregoing needs are satisfied, the needs for self-actualization are activated. Self-actualization is a person's need to be and do what the person was "born to do." Helping a student achieve his/her individual potential in aviation training offers the greatest challenge as well as reward to the instructor.

Answer (A) is incorrect. Social needs are not a challenge to the instructor. Social needs are those to belong and to give and receive friendship, which the student must satisfy on his/her own.

Physiological needs are needs that the instructor has no direct impact on. These basic biological needs include the need for air, food, water, and maintenance of the human body. Answer (B) is incorrect. Although making a student feel self-confident and deserving of respect (egoism) is important and usually has a direct influence on the instructor-student relationship, it is not the instructor's greatest challenge. Psychological needs include the student's need to belong, have positive self-esteem, cognitively know and understand, and emotionally be drawn to learning. While difficult to develop, these needs are not as difficult to encourage as self-actualization.

Page 46, Subunit 3.3: The following new questions are added to better address the topic of risk management as covered in the Aviation Instructor’s Handbook.

22. If a pilot wanted to mitigate risk during a cross-country flight in MVFR conditions, the pilot could

A. take a pilot who is IFR-rated.
B. continue the flight as planned.
C. stay out of controlled airspace.

Answer (A) is correct. (AIH Chap 9)

**DISCUSSION:** Risk assessment is only part of the risk management equation. After determining the level of risk, the pilot needs to mitigate, or reduce, the risk. In this example, the pilot could reduce the risk by taking a qualified IFR-rated pilot along on the trip in case the weather deteriorated below VFR minimums.

Answer (B) is incorrect. Continuing the flight as planned is acceptance, not mitigation, of the risk of flying in MVFR conditions. Answer (C) is incorrect. Deciding to stay out of controlled airspace should be an immediate red flag, as it signals that the pilot may try to push his/her limits and continue into weather that could present additional hazards. Risk mitigation is about reducing total risk, not adding additional potential risks to the planned flight.
23. A pilot’s inexperience in direct crosswinds greater than 10 knots is an example of which of the fundamental risk elements?

A. The pilot in command.
B. The aircraft.
C. The external pressures.

Answer (A) is correct. (AlH Chap 9)

**DISCUSSION:** The pilot is one of the risk factors in a flight. The pilot must ask, “Am I ready for this trip?” in terms of experience, currency, and physical and emotional condition. If the pilot has experience with 10 knots of direct crosswind, it could be unsafe to exceed a 10-knot crosswind component without additional training. Therefore, the crosswind experience level is that pilot’s personal limitation until additional training with a CFI provides the pilot with additional experience for flying in crosswinds that exceed 10 knots.

Answer (B) is incorrect. The pilot’s lack of experience level in crosswinds that exceed 10 knots is a personal limitation and risk factor, not one having to do with the aircraft itself. Answer (C) is incorrect. The pilot’s lack of experience level in crosswinds that exceed 10 knots is a personal limitation and risk factor, not one having to do with external pressures associated with a planned flight.

24. Which of the following aircraft risks can be mitigated during the preflight inspection?

A. Urgency of completing the flight.
B. Weather en-route.
C. Fuel quantity.

Answer (C) is correct. (AlH Chap 9)

**DISCUSSION:** As part of a preflight inspection, the pilot in command should check the fuel quantity to ensure that the amount is accurate compared with what was ordered and what was planned for during the preflight planning phase.

Answer (A) is incorrect. The urgency of completing the flight is a risk factor associated with external pressures, not the aircraft. This risk factor should be dealt with during the pilot’s evaluation of the planned flight, not during the preflight inspection. Answer (B) is incorrect. The weather en-route for a planned flight is an environmental risk factor, not one associated with the aircraft. This risk factor should be dealt with during the preflight planning phase rather than during the preflight inspection.

---

**Study Unit 6 – Critique and Evaluation**

Page 82, Subunit 6.2: The following outline content is added to better address the function and purpose of the practical test standards, as well as criterion-referenced testing in general, per new coverage on this topic in the FOI test bank.

2. **Criterion-referenced testing** measures a student’s performance against a carefully written, measurable standard or criterion.
   
   a. Practical tests for pilot certification are an example of criterion-referenced testing.
      
      1) The objective of the Practical Test Standards (PTS) is to ensure the certification of pilots at a high level of performance and proficiency, consistent with safety.
      
      2) The PTS should not be used merely to “teach the test.” Rather, the document should be used as both a training tool and an assessment tool during flight training to ensure students are adequately prepared for the practical test.
   
   b. Criterion-referenced tests feature performance-based objectives that can be reliably, rather than subjectively, measured.
      
      1) A pretest constructed to measure knowledge and skills necessary to begin a course is a criterion-referenced test, as is a pre-solo aeronautical knowledge test.
12. The Practical Test Standards should be used in
   A. flight training and testing.
   B. flight training only.
   C. testing only.

   Answer (A) is correct. *(AlH Chap 5)*
   
   **DISCUSSION:** Because the Practical Test Standards (PTS) documents are the primary evaluation tool of the FAA for the issuance of a pilot certificate, they obviously are testing documents. Because this information is publicly accessible, these documents absolutely should be used to train pilot applicants to ensure they meet the PTS requirements. This training should not be merely to “teach the test,” but the PTS is a very valuable resource in evaluating a pilot applicant's eligibility to take the practical test.

   Answer (B) is incorrect. The Practical Test Standards (PTS) documents are the primary evaluation tool of the FAA for the issuance of a pilot certificate; therefore, they are to be used as testing documents in addition to their use as flight training skill standards. Answer (C) is incorrect. While the Practical Test Standards (PTS) documents are the primary evaluation tool of the FAA for the issuance of a pilot certificate, they are also a very valuable resource in evaluating a pilot applicant's eligibility to take the practical test.

13. Performance-based objectives are a distinguishable characteristic of
   A. formative assessments.
   B. subjective grading.
   C. criterion-referenced testing.

   Answer (C) is correct. *(AlH Chap 5)*
   
   **DISCUSSION:** Performance-based objectives serve as a reference for the development of test items in criterion-referenced testing. Criterion-referenced tests evaluate the student based on carefully written, measurable standards or criteria.

   Answer (A) is incorrect. Formative assessments, which are not graded, are used as a wrap-up of the lesson and to set the stage for the next lesson. This type of assessment, which is limited to what transpired during that lesson, informs and guides the instructor on which areas to reinforce. Answer (B) is incorrect. Performance-based objectives provide carefully written, measurable standards or criteria for testing. They do not allow for subjective grading.