4. It is important for an instructor to make the student aware that a particular lesson can help him/her reach an important goal.
   a. When students are unable to see the benefits or purpose of a lesson, they will be less motivated.
   b. Confusion, disinterest, and uneasiness on the part of the student could happen as a result of not knowing the objective of each period of instruction.

5. Motivations may be
   a. Positive or negative
   b. Tangible or intangible
   c. Obvious or subtle and difficult to identify

6. A student is like any worker in wanting tangible returns for his/her efforts. If such motivation is to be effective, students must believe that their efforts will be suitably rewarded.
   Instructors should remember always to tailor individual lessons to the objective.

7. An instructor can most effectively maintain a high level of student motivation by making each lesson a pleasurable experience.

3.3 AERONAUTICAL DECISION MAKING AND RISK MANAGEMENT

1. Aeronautical decision making (ADM) can be defined as a systematic approach to the mental process used by pilots to consistently determine the best course of action in response to a given set of circumstances.

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
      2) Aircraft
      3) Environment
      4) Mission (type of operation)

3. One step in the ADM process for good decision making is to identify personal attitudes hazardous to safe flight.
   a. Examples of classical behavioral traps that experienced pilots may fall into are the compulsion to complete a flight as planned, the desire to please passengers, the pressure to meet schedules, and the determination to “get the job done.”
   b. At some time, many experienced pilots have fallen prey to dangerous tendencies or behavior problems that must be identified and eliminated, including
      1) Peer pressure
      2) Scud running
      3) Loss of positional or situational awareness
      4) Operating without adequate fuel reserves
   c. In order to gain a realistic perspective on your attitude toward flying, you should take a Self-Assessment Hazardous Attitude Inventory Test.
d. ADM addresses the following five hazardous attitudes:

1) Antiauthority -- “Do not tell me what to do!”
   a) **EXAMPLE:** During a stall recovery, the CFI allows the student to exceed
   maneuvering speed. An antiauthority attitude expressed by the CFI
   would be “The aircraft can handle a lot more than the maneuvering
   speed.”

2) Impulsivity -- “Do something quickly!”
3) Invulnerability -- “It will not happen to me.”
4) Macho -- “I can do it.”
5) Resignation -- “What is the use?”

4. In the ADM process, the first step in neutralizing a hazardous attitude is recognizing it.
   a. When you recognize a hazardous thought, you should label it as hazardous; then
   correct the attitude by stating the corresponding antidote.
   b. Hazardous attitudes, which contribute to poor pilot judgment, can be effectively
   counteracted by the appropriate antidote, as listed below.
   1) Antiauthority -- “Follow the rules. They are usually right.”
   2) Impulsivity -- “Not so fast. Think first.”
   3) Invulnerability -- “It could happen to me.”
   4) Macho -- “Taking chances is foolish.”
   5) Resignation -- “I am not helpless. I can make a difference.”

5. Success in reducing stress associated with crisis management in the cockpit begins by
   making a personal assessment of stress in all areas of your life.
   a. To help manage cockpit stress, you should try to relax and think rationally at the first
   sign of stress.

6. The DECIDE process consists of six elements to help provide a pilot a logical way of
   approaching ADM. These elements are to
   a. Detect
   b. Estimate
   c. Choose
   d. Identify
   e. Do
   f. Evaluate

7. A flight instructor should begin teaching ADM when the student has the ability to control the
   airplane confidently during the most basic maneuvers.

### 3.4 EFFECTIVE COMMUNICATION

1. The process of communication is composed of three dynamically interrelated elements:
   a. A source (instructor)
   b. The symbols used in composing and transmitting the message (e.g., words)
   c. The receiver (student)

2. Communication takes place when one person transmits ideas or feelings to another person
   or to a group of people.
   a. The effectiveness of communication is measured by the similarity between the idea
   transmitted and the idea received.
   b. Effective communication has taken place when, and only when, the receivers react
   with understanding and change their behavior accordingly.
   c. Instruction has taken place when a procedure has been explained and the desired
   student response has occurred.
8. Confusion, disinterest, and uneasiness on the part of the student could happen as a result of not knowing the
   A. importance of each period of instruction.
   B. objective of each period of instruction.
   C. subject of each period of instruction.
   Answer (B) is correct. (AIH Chap 7)
   DISCUSSION: Knowing the objective of each period of instruction gives meaning and interest to the student as well as
   the instructor. Not knowing the objective of the lesson often leads to confusion, disinterest, and uneasiness on the part of the
   student.
   Answer (A) is incorrect. Confusion, disinterest, and uneasiness on the part of the student could happen as a result of not
   knowing the objective of each period of instruction, not its importance. Answer (C) is incorrect. Confusion, disinterest, and
   uneasiness on the part of the student could happen as a result of not knowing the objective of each period of instruction, not its
   subject. The subject of the instructional period will be obvious if it has been planned appropriately.

9. Which statement is true concerning motivations?
   A. Motivations must be tangible to be effective.
   B. Motivations may be very subtle and difficult to identify.
   C. Negative motivations often are as effective as positive motivations.
   Answer (B) is correct. (AIH Chap 2)
   DISCUSSION: Motivations may be subtle, subconscious, and difficult to identify. A student may be motivated without even
   being aware (s)he is being influenced.
   Answer (A) is incorrect. Intangible motivations can be as effective (or even more effective) than tangible motivations.
   Rewards such as accomplishment, fame, and peer acceptance are intangible, but they are among the best positive motivators.
   Answer (C) is incorrect. Negative motivation tends to discourage the student.

10. For a motivation to be effective, students must believe their efforts will be rewarded in a definite manner. This type of motivation is
    A. subtle.
    B. negative.
    C. tangible.
    Answer (C) is correct. (AIH Chap 2)
    DISCUSSION: Students, like any worker, need and want tangible returns for their efforts. These rewards must be
    constantly apparent to the student during instruction.
    Answer (A) is incorrect. The student is often unaware of the application of subtle motivation and thus feels unrewarded for
    his/her effort. Answer (B) is incorrect. Negative motivations are not as effective as positive motivations, as they tend to intimidate
    students and cause unpleasant experiences.

11. An instructor can most effectively maintain a high level of student motivation by
    A. making each lesson a pleasurable experience.
    B. relaxing the standards of performance required during the early phase of training.
    C. continually challenging the student to meet the highest objectives of training that can be established.
    Answer (A) is correct. (AIH Chap 2)
    DISCUSSION: An instructor can most effectively maintain a high level of motivation by making each lesson a pleasant
    experience for a student. People avoid negative experiences, but they will seek out and want to repeat positive experiences.
    Answer (B) is incorrect. Relaxing the standards of performance required during the early phase of training may actually reduce a
    student’s motivation. Reasonable standards strictly enforced are not resented by an earnest student.
    Answer (C) is incorrect. Performance standards should be set to the student’s potential and not his/her current ability or to
    unrealistically high objectives. Improvement must be fostered.

3.3 Aeronautical Decision Making and Risk Management

12. What is the systematic approach to the mental process used by pilots to determine the best course of action in response to a given set of circumstances?
    A. Pilot Judgment Chain
    B. Aeronautical Decision Making
    C. Crew Resource Management
    Answer (B) is correct. (AIH Chap 8)
    DISCUSSION: Aeronautical Decision Making is defined as the systematic approach to the mental process used by pilots to
    determine the best course of action in response to a given set of circumstances.
    Answer (A) is incorrect. The sentence presented is the definition of Aeronautical Decision Making, not the Pilot
    Judgment Chain. Answer (C) is incorrect. Crew Resource Management pertains to team management concepts on the
    flight deck, as well as those that affect flight attendants, maintenance personnel, and others. The sentence that makes
    up this question describes Aeronautical Decision Making.
13. Which of the following identifies accurate perception of the aircraft and environmental factors that affect the aircraft and passengers during a specific period of time?

A. CRM  
B. Situational Awareness  
C. ADM

**Answer (B) is correct. (AIH Chap 8)**

**DISCUSSION:** Situation awareness is defined as an accurate perception and understanding of all the factors and conditions within the four fundamental risk elements that affect safety before, during, and after the flight.

Answer (A) is incorrect. Crew Resource Management (CRM) refers to the application of team management concepts on the flight deck environment, including cabin crew, maintenance personnel, and others. It is situational awareness that involves the accurate perception and understanding of all the factors and conditions within the four fundamental risk elements that affect safety before, during, and after the flight. Answer (C) is incorrect. Aeronautical Decision Making (ADM) is defined as the systematic approach to the mental process used by pilots to determine the best course of action in response to a given set of circumstances. It is situational awareness that involves the accurate perception and understanding of all the factors and conditions within the four fundamental risk elements that affect safety before, during, and after the flight.

14. One of the risk elements in the decision making process is?

A. Fuel on board  
B. Passengers  
C. The aircraft

**Answer (C) is correct. (AIH Chap 8)**

**DISCUSSION:** The four fundamental risk elements incorporated into Aeronautical Decision Making are the pilot, the aircraft, the environment, and the type of operation that comprises any given aviation situation.

Answer (A) is incorrect. Fuel on board is not one of the risk elements included in the aeronautical decision making process. The pilot, the aircraft, the environment, and the type of operation are the four fundamental risk elements included in ADM. Answer (B) is incorrect. The passengers are not considered to be one of the risk elements included in the aeronautical decision making process. The pilot, the aircraft, the environment, and the type of operation are the four fundamental risk elements included in ADM.

15. Risk management, as part of the aeronautical decision making (ADM) process, relies on which features to reduce the risks associated with each flight?

A. Application of stress management and risk element procedures.  
B. The mental process of analyzing all information in a particular situation and making a timely decision on what action to take.  
C. Situational awareness, problem recognition, and good judgment.

**Answer (C) is correct. (AC 60-22)**

**DISCUSSION:** Risk management is that part of the ADM process which relies on situational awareness, problem recognition, and good judgment to reduce risks associated with each flight.

Answer (A) is incorrect. Risk management relies on situational awareness, problem recognition, and good judgment, not the application of stress management and risk-element procedures, to reduce the risks associated with each flight. Answer (B) is incorrect. Judgment, not risk management, is the mental process of analyzing all information in a particular situation and making a timely decision on what action to take.

16. The aeronautical decision making (ADM) process identifies several steps involved in good decision making. One of these steps is

A. making a rational evaluation of the required actions.  
B. identifying personal attitudes hazardous to safe flight.  
C. developing a “can do” attitude.

**Answer (B) is correct. (AC 60-22)**

**DISCUSSION:** The ADM process addresses all aspects of decision making in the cockpit and identifies several steps involved in good decision making. One of these steps is to identify personal attitudes hazardous to safe flight.

Answer (A) is incorrect. Making a rational evaluation of the required actions is a step in good judgment, not a step in good decision making. Answer (C) is incorrect. The “can do,” or macho, attitude is one of the personal hazardous attitudes to identify in the steps involved in good decision making.
17. Examples of classic behavioral traps that experienced pilots may fall into are to

A. promote situational awareness and then necessary changes in behavior.
B. complete a flight as planned, please passengers, meet schedules, and “get the job done.”
C. assume additional responsibilities and assert PIC authority.

Answer (B) is correct. (AC 60-22)

DISCUSSION: Pilots have been known to fall into a number of classic behavioral traps. Pilots, particularly those with considerable experience, as a rule always try to complete a flight as planned, please passengers, meet schedules, and do what it takes to “get the job done.”

Answer (A) is incorrect. To promote situational awareness and then to make necessary changes in behavior are part of learning good decision making, not classical behavioral traps.

Answer (C) is incorrect. Assuming additional responsibilities and asserting PIC authority are not examples of classical behavioral traps.

18. Hazardous attitudes occur to every pilot to some degree at some time. What are some of these hazardous attitudes?

A. Antiauthority, impulsivity, macho, resignation, and invulnerability.
B. Poor situational awareness, snap judgments, and lack of a decision making process.
C. Poor risk management and lack of stress management.

Answer (A) is correct. (AC 60-22)

DISCUSSION: The five hazardous attitudes addressed in the ADM process are antiauthority, impulsivity, invulnerability, macho, and resignation.

Answer (B) is incorrect. Poor situational awareness and snap judgments are indications of the lack of a decision-making process, not hazardous attitudes. Answer (C) is incorrect. Poor risk management and lack of stress management lead to poor ADM and are not considered hazardous attitudes.

19. In the aeronautical decision making (ADM) process, what is the first step in neutralizing a hazardous attitude?

A. Recognizing hazardous thoughts.
B. Recognizing the invulnerability of the situation.
C. Making a rational judgment.

Answer (A) is correct. (AC 60-22)

DISCUSSION: Hazardous attitudes, which contribute to poor pilot judgment, can be effectively counteracted by redirecting that hazardous attitude so that appropriate action can be taken. Recognition of hazardous thoughts is the first step in neutralizing them in the ADM process.

Answer (B) is incorrect. Invulnerability is a hazardous attitude. The first step in neutralizing a hazardous attitude is to recognize it. Answer (C) is incorrect. Before a rational judgment can be made, the hazardous attitude must be recognized then redirected so that appropriate action can be taken.

20. Success in reducing stress associated with a crisis in the cockpit begins with

A. eliminating the more serious life and cockpit stress issues.
B. knowing the exact cause of the stress.
C. assessing stress areas in one’s personal life.

Answer (C) is correct. (AC 60-22)

DISCUSSION: If you hope to succeed in reducing stress associated with crisis management in the cockpit, it is essential to begin by making a personal assessment of stress in all areas of your life.

Answer (A) is incorrect. In order to eliminate the more serious life and cockpit stress issues, you must first make an assessment of stress in all areas of your life to identify those stressors. Answer (B) is incorrect. In order to know the exact cause of the stress, you must first make an assessment of stress in all areas of your life to identify stressors and the causes of them.

21. The DECIDE process consists of six elements to help provide a pilot a logical way of approaching aeronautical decision making. These elements are to

A. estimate, determine, choose, identify, detect, and evaluate.
B. determine, evaluate, choose, identify, do, and eliminate.
C. detect, estimate, choose, identify, do, and evaluate.

Answer (C) is correct. (AC 60-22)

DISCUSSION: The DECIDE model, comprised of six elements, is intended to provide a pilot with a logical way of approaching decision making. These six elements, using the acronym DECIDE, are detect, estimate, choose, identify, do, and evaluate.

Answer (A) is incorrect. One of the elements of the DECIDE process is “do,” not “determine.” Answer (B) is incorrect. Two of the elements of the DECIDE process are “detect,” not “determine,” and “estimate,” not “eliminate.”