PRACTICE EXAM 5: FULL CFI SIMULATION (Q1–Q150)

FOI BLOCK — Q1–Q50

1. Which of the following best describes the relationship between basic physiological needs and a student's capacity for higher-order learning?

A. Physiological needs are unrelated to higher-order learning

B. Higher-order learning proceeds normally regardless of unmet physical needs

C. Higher-order learning cannot proceed effectively while physiological needs are unmet

D. Higher-order learning replaces physiological needs once a student is engaged

2. Which statement most accurately distinguishes positive motivation from negative motivation in flight training?

A. Negative motivation produces more durable learning than positive motivation

B. Negative and positive motivation produce identical long-term outcomes

C. Positive motivation builds confidence and durable learning; negative motivation breeds anxiety and avoidance

D. Positive motivation is reserved for students above a defined skill level

3. Which of the following is NOT a recognized defense mechanism in instructional theory?

A. Rationalization

B. Projection

C. Compensation

D. Coordination

4. Which of the following best characterizes learning?

A. The memorization of facts the student can recite later

B. The completion of a syllabus signed by an instructor

C. The transfer of information from instructor to student

D. A change in behavior as a result of experience

5. Which of the following most directly narrows a student's perception and blocks learning?

A. A clear and stated objective for the lesson ahead

B. A previously mastered skill that supports the new lesson

C. A perceived element of threat in the learning environment

D. A natural curiosity about the subject being introduced

6. Which of the recognized levels of knowledge is the deepest and most transferable?

A. Memorization of facts and definitions only

B. Recognition of correct answers from a list of options

C. Repetition of procedures until they become automatic

D. Concept formation that groups understandings into general principles

7. Which of the laws of learning is most directly applied when an instructor refuses to allow a sloppy first demonstration of any maneuver?

A. The law of primacy

B. The law of recency

C. The law of effect

D. The law of intensity

8. Which of the following best distinguishes a slip from a mistake?

A. A slip and a mistake describe identical errors and are corrected identically

B. A mistake is caused by mechanical malfunction; a slip is caused by pilot error

C. A slip is correct intent with misfired execution; a mistake is wrong intent based on flawed plan

D. A slip is corrected by re-teaching; a mistake is corrected by additional practice

9. Which of the following best describes positive transfer of learning?

A. Earlier learning interferes with the acquisition of a new skill

B. The student abandons earlier learning when starting a new skill

C. The student receives a reward for completing a difficult lesson

D. Earlier learning aids the acquisition of a new skill

10. Which of the following statements about the three stages of memory is most accurate?

A. Long-term memory has the smallest capacity and shortest duration

B. Sensory memory holds information for hours unless rehearsed

C. Short-term (working) memory has limited capacity easily overloaded by lengthy briefings

D. Short-term memory has unlimited capacity comparable to long-term memory

11. Of the recognized theories of forgetting, which best describes new learning crowding out earlier learning?

A. Decay through chemical processes

B. Repression of unpleasant material

C. Interference between competing learning

D. Disuse from lack of practice over time

12. Which of the three domains of learning addresses values, attitudes, and the safety-critical responses an aviator must hold?

A. The affective domain

B. The cognitive domain

C. The psychomotor domain

D. The procedural domain

13. Which of the following best describes the law of effect?

A. Learning is unaffected by emotional outcomes of the lesson

B. Learning is strengthened by pleasant feelings and weakened by unpleasant ones

C. Learning is strengthened by repetition regardless of the emotional context

D. Learning is determined primarily by the order of presentation

14. Which of the four recognized characteristics of learning emphasizes that students must participate rather than passively observe?

A. Learning is an active process requiring engagement

B. Learning is purely a cognitive activity

C. Learning is automatic once instruction is delivered

D. Learning is identical across all students regardless of effort

15. Which of the following best describes communication, as defined for instructional purposes?

A. The transmission of vocabulary regardless of meaning received

B. The signal level of the instructor's voice in the cockpit

C. The transfer of meaning that succeeds only when received meaning matches intended meaning

D. The arrangement of words in technically correct sequence

16. Which of the following is the single greatest barrier to communication between an instructor and a beginner?

A. The instructor's age relative to the student

B. The use of standardized checklists during briefings

C. The lack of common experience between the parties

D. The instructor's regional accent

17. Which of the following teaching methods is best suited to delivering a large body of factual information efficiently to a group?

A. The teaching lecture, particularly with deliberate audience involvement

B. The demonstration-performance method applied to physical skills

C. Pure scenario-based training with no other elements

D. Student-led discovery with no instructor guidance

18. Which of the following describes the proper phase sequence in the demonstration-performance method?

A. Explanation, demonstration, student performance with supervision, evaluation

B. Demonstration, evaluation, explanation, application

C. Performance, evaluation, demonstration, explanation

D. Evaluation, application, demonstration, explanation

19. Which of the following best describes scenario-based training (SBT)?

A. A grading rubric used during the practical test only

B. A specific form of problem-based learning organized around a realistic flight scenario

C. A pure memorization technique applied to checklist items

D. A lecture using printed scenarios as visual aids only

20. Which of the following is NOT a feature of integrated flight instruction as currently taught?

A. Use of outside visual references from the start of training

B. Use of flight instruments from the start of training

C. Development of cross-check habits during early lessons

D. Sole reliance on outside references until the instrument rating is earned

21. Which of the following teaching methods develops understanding by drawing knowledge out of the students through skillful questioning?

A. The pure lecture method only

B. The demonstration-performance method only

C. The passive video review method

D. The guided discussion method

22. Which of the following is the most important consideration for the proper use of an instructional aid?

A. The aid must support the lesson's objective and supplement (not replace) the instructor

B. The aid must impress the student with its sophistication

C. The aid must allow the instructor to remain silent throughout

D. The aid must permit the student to skip prerequisite study

23. Which of the following correctly states the four steps of the teaching process?

A. Lecture, demonstration, performance, certification

B. Introduction, development, summary, final examination

C. Briefing, flying, debriefing, logbook entry

D. Preparation, presentation, application, assessment

24. Which of the following correctly identifies the required elements of a performance-based objective?

A. The objective's cost in training hours and dollars

B. The skill or behavior, the conditions, and the criterion that defines acceptable performance

C. The number of students participating in the lesson

D. The instructor's preferred teaching method for the topic

25. Which of the following is the most effective approach to organizing a course of training?

A. Allowing the calendar to drive the sequence regardless of student readiness

B. Letting the student choose the next topic each lesson

C. Identifying blocks of learning and sequencing them logically from foundational to advanced

D. Following the instructor's interest of the day

26. Which of the following best describes the proper role of a training syllabus?

A. A flexible guide allowing the instructor to adapt pace and sometimes sequence to the student

B. A rigid script the instructor must read aloud verbatim each lesson

C. A regulatory document submitted to the FAA before each lesson

D. A list of facts the student must memorize before any flight training

27. Within a single lesson, the conclusion most directly exploits which law of learning?

A. The law of recency

B. The law of primacy

C. The law of intensity

D. The law of exercise

28. Which of the following best describes a low-threat learning environment?

A. An environment with no defined standards or completion criteria

B. An environment in which difficult portions of the lesson may be skipped

C. An environment in which critique is eliminated to protect feelings

D. An environment in which the student feels safe enough to attempt, err, and be corrected

29. Which of the following best describes formative assessment?

A. Assessment that occurs during instruction and shapes ongoing learning

B. Assessment conducted only by an FAA examiner during the practical test

C. Assessment that certifies the student has reached the standard at a milestone

D. Assessment that replaces all other types of evaluation in training

30. Which of the following is the most important characteristic of effective assessment?

A. It is specific, constructive, and tied to performance against the standard

B. It focuses on the student's personality rather than the performance

C. It is delivered only in writing and never face-to-face

D. It is delivered as the instructor's opinion rather than as comparison to a standard

31. Which of the following best describes the ultimate goal of assessment in flight training?

A. The student becomes reliant on the instructor's evaluation indefinitely

B. The student receives praise to maintain motivation regardless of performance

C. The student gains a purely external sense of when their flying meets standards

D. The student develops the ability to honestly self-assess against the standard

32. Which of the following is generally the most useful question type for assessing the depth of a student's understanding?

A. A yes-or-no question accepted at face value

B. A toss-up question thrown to a group at large

C. A trick question designed to confuse the student

D. A follow-up question that probes deeper after the initial answer

33. Which of the following correctly identifies the three integrated elements within each task of the Airman Certification Standards?

A. Knowledge, risk management, and skill

B. Memorization, recall, and recognition under exam conditions

C. Performance, attitude, and presentation under evaluation

D. Lecture content, demonstration, and grading by the examiner

34. Which of the following best describes how an examiner uses ACS codes on the Airman Knowledge Test Report?

A. To disqualify the applicant from sitting the practical test entirely

B. To determine the fee charged for the practical test

C. To set the overall pilot certificate grade

D. To identify topics that must be revisited during the oral portion of the practical test

35. Which of the following best describes a flight instructor's logbook endorsement for the practical test?

A. An informal opinion offered as a courtesy without legal force

B. A request that the examiner be lenient with the applicant

C. A formal certification that the applicant meets the required standard

D. A summary of how the applicant performed on the most recent stage check

36. Which of the following best describes a flight instructor who issues a premature endorsement to please a student?

A. Acting in the student's true interest by accelerating progression

B. Operating within the bounds of professional discretion

C. Demonstrating effective customer service to the flight school

D. Breaching the trust the instructor's certificate represents

37. Which of the following is the most accurate statement about a flight instructor's professional development?

A. It is a continuing obligation throughout the instructor's career

B. It applies only to the year following initial certification

C. It applies only to instructors employed at Part 141 schools

D. It applies only to instructors who teach instrument students

38. Which of the following correctly identifies the four PAVE categories used for risk identification?

A. Performance, altitude, velocity, energy state

B. Procedures, airspace, visibility, equipment

C. Passengers, avionics, ventilation, engineering

D. Pilot, aircraft, enVironment, External pressures

39. Which of the following best describes aeronautical decision-making (ADM)?

A. An intuitive judgment skill that cannot be taught systematically

B. A regulation requiring written documentation before every flight

C. A systematic approach to consistently determining the best course of action

D. A maneuver evaluated only during the multi-engine practical test

40. Which of the following is NOT one of the five recognized hazardous attitudes?

A. Anti-authority

B. Impulsivity

C. Macho

D. Curiosity

41. Which hazardous attitude is characterized by the thought "It won't happen to me"?

A. Anti-authority

B. Impulsivity

C. Resignation

D. Invulnerability

42. Which of the following correctly pairs a hazardous attitude with its antidote?

A. Resignation → "I'm not helpless. I can make a difference."

B. Macho → "Not so fast. Think first."

C. Anti-authority → "I'm not helpless. I can make a difference."

D. Impulsivity → "Follow the rules. They are usually right."

43. Which of the following best describes single-pilot resource management (SRM)?

A. A regulation requiring two pilots on commercial flights

B. The art of managing all resources available to a pilot operating alone

C. A maneuver evaluated only during the multi-engine practical test

D. An optional course offered only to airline transport pilots

44. Which domain of learning is primarily engaged when an instructor models discipline with checklists, weather decisions, and personal minimums?

A. The affective domain

B. The cognitive domain only

C. The psychomotor domain only

D. The procedural domain only

45. Which of the following is a hazard unique to providing flight instruction in the aircraft?

A. The continuous teaching-versus-safety division of attention

B. The aircraft's normal mechanical operation in cruise

C. The presence of routine pre-flight inspection requirements

D. The use of standard checklists during cruise flight

46. Which of the following best describes crew resource management (CRM)?

A. A regulation requiring two pilots in every aircraft

B. The effective use of all available resources to ensure a safe flight

C. A maneuver evaluated only during the practical test

D. An optional add-on course for airline transport pilots only

47. Which of the following is the defining instructor skill across every Part One chapter of an instructional curriculum?

A. Speed at which the syllabus is completed

B. Recognition and correction of student errors with honest diagnosis

C. Ability to fly each maneuver more precisely than the student

D. Marketing ability to recruit new students

48. Which of the following is the most appropriate instructional response when a student deploys a defense mechanism in response to repeated correction?

A. Aggressively confront the student until they admit fault

B. Document the occurrences and refer the student to the FAA

C. Reduce stress, restore an early success, and rebuild a low-threat climate

D. Discontinue training and reassign the student to another instructor

49. Which of the following best describes the most effective method for teaching ADM?

A. Embedding realistic decisions in scenarios the student must work through

B. Multiple-choice testing of decision theory in the abstract

C. Memorizing a one-page checklist verbatim before each lesson

D. Strictly avoiding all decisions until the rating is earned

50. Which of the following best describes the instructor's defining task when teaching aeronautical decision-making?

A. Memorize a fixed list of right answers for common emergencies

B. Avoid all flights in which weather is forecast to be variable

C. Internalize in the student a habit of honest hazard recognition and structured decisions

D. Rely on the instructor's guidance long after the certificate is earned

FIA BLOCK — Q51–Q150

51. Which of the following statements about angle of attack is most accurate?

A. Angle of attack is the angle between the chord line and the longitudinal axis

B. Angle of attack is the angle between the wing's chord line and the relative wind

C. Angle of attack is the same as the airplane's pitch attitude

D. Angle of attack is set by the airspeed indicator independently of pitch

52. Which of the following will occur when a wing exceeds its critical angle of attack?

A. Lift continues to increase up to the design maximum

B. Airflow over the upper surface separates and the wing stalls

C. Induced drag decreases sharply, lowering the stall speed

D. The airplane transitions smoothly into best lift-to-drag cruise

53. Which of the following statements about induced drag is most accurate?

A. Induced drag is independent of angle of attack

B. Induced drag arises only from skin friction on the airframe

C. Induced drag dominates at high airspeeds and low angles of attack

D. Induced drag arises as a byproduct of producing lift and dominates at low airspeeds

54. Which of the following statements about maneuvering speed (Va) is true?

A. Va is independent of operating weight

B. Va decreases at operating weights below maximum gross weight

C. Va increases significantly as density altitude rises

D. Va is the same as never-exceed speed Vne in the green arc

55. Which of the following best describes the critical angle of attack of a given wing in clean configuration?

A. Varying directly with operating weight, increasing as weight increases

B. Essentially constant regardless of weight, bank angle, or density altitude

C. Set by the pilot through manipulation of the airspeed indicator

D. Decreasing significantly when density altitude rises during cruise

56. Which of the following will raise an airplane's stall speed?

A. Reducing weight by burning fuel during a long cruise

B. Extending wing flaps to a full landing position

C. Increased load factor produced by maneuvering or a steep turn

D. Operating at a low density altitude near sea level

57. Which of the following statements about ground effect is most accurate?

A. Ground effect increases induced drag near the surface

B. Ground effect raises the stall speed during the landing flare

C. Ground effect reduces induced drag and can cause float on landing

D. Ground effect is observed only above 1,000 feet AGL

58. Which of the following describes wingtip vortices that are strongest from a heavy aircraft?

A. Heavy, clean (no flaps), and slow on approach or initial climb

B. Light, dirty, and fast in a high-performance climb

C. Heavy, fully configured for landing, and traveling at high speed

D. Light, clean, and operating well above maneuvering speed

59. Which of the following correctly states the four-stroke reciprocating engine cycle?

A. Compression, intake, exhaust, power

B. Power, exhaust, intake, compression

C. Exhaust, power, compression, intake

D. Intake, compression, power, exhaust

60. Which of the following statements about carburetor ice is true?

A. Carburetor ice can form across a wide range of temperatures with visible moisture or high humidity

B. Carburetor ice forms only in cold, dry air well below freezing

C. Carburetor ice forms only at standard atmospheric conditions

D. Carburetor ice is impossible at high humidity or warm temperatures

61. Which of the following statements about the fuel-air mixture during an uncorrected climb is most accurate?

A. The mixture becomes leaner as air density decreases relative to fuel flow

B. The mixture remains unchanged because the carburetor self-adjusts

C. The mixture becomes richer because air density decreases relative to fuel flow

D. The mixture becomes cleaner due to colder combustion at altitude

62. Which of the following is a characteristic concern of fuel-injected engines, in contrast to carbureted engines?

A. Susceptibility to carburetor ice in visible moisture

B. Inability to provide adequate fuel flow at any altitude

C. Routine sudden magneto failure during cruise

D. Vapor lock and a more sensitive hot-start procedure

63. Which of the following correctly describes the indication produced by a blocked pitot tube (with the static port clear)?

A. The airspeed indicator behaves like an altimeter, reading high in a climb

B. The airspeed indicator reads consistently lower than the true airspeed

C. The airspeed indicator remains stuck at the airspeed at blockage

D. The airspeed indicator reads true airspeed only in straight and level flight

64. Which of the following correctly describes the indications produced by a blocked static port (with the pitot tube clear)?

A. The altimeter and VSI continue functioning normally

B. The altimeter and VSI reverse readings during climb and descent

C. The altimeter and VSI display inverted scales until ground reset

D. The altimeter and VSI freeze, and the airspeed reading becomes unreliable

65. Which of the following correctly identifies the documents required aboard a civil aircraft for legal flight?

A. CARES: Certificate, Aircraft data, Registration, Equipment list, Standards

B. ARROW: Airworthiness, Registration, Radio (when required), Operating limitations, Weight and balance

C. FREES: Fuel records, Repair records, Equipment, Endorsements, Standards

D. POWER: Pilot certificate, Operating manual, Weight, Equipment, Registration

66. Which of the following correctly describes the recurring annual inspection requirement?

A. Required every 6 calendar months regardless of utilization

B. Required every 50 flight hours regardless of calendar time

C. Required every 12 calendar months from the previous annual

D. Required every 24 calendar months at IFR certification cycles

67. Which of the following statements about the 100-hour inspection is most accurate?

A. It is required in addition to the annual when the aircraft is used for hire or for flight instruction in an instructor-provided aircraft

B. It is required for all civil aircraft regardless of operation type

C. It can substitute for the annual inspection at the owner's discretion

D. It is required only for aircraft owned by individuals, not by schools

68. Which of the following statements about Class B airspace is most accurate?

A. Entry requires an explicit ATC clearance

B. Entry requires only two-way radio communication with no clearance

C. Entry is permitted under VFR without communication when below 1,000 feet AGL

D. Entry requires only a transponder regardless of communication status

69. Which of the following correctly identifies the entry requirement for Class C airspace?

A. An explicit ATC clearance for entry

B. Two-way radio communication established before entry

C. No communication requirement under VFR daytime conditions

D. A current first-class medical certificate carried in the cockpit

70. Under Part 91, to carry passengers a pilot must have completed three takeoffs and landings within the preceding:

A. 12 calendar months in any aircraft for which the pilot is rated

B. 30 days in the same category of aircraft regardless of class

C. 24 calendar months in any aircraft regardless of category and class

D. 90 days in the same category, class, and (if a type rating is required) type

71. Which of the following correctly describes the flight review requirement under 14 CFR §61.56?

A. Completed within the preceding 24 calendar months, including at least 1 hour of ground and 1 hour of flight training

B. Completed within the preceding 6 calendar months with 30 minutes of ground only

C. Completed within the preceding 36 calendar months with 3 hours of ground only

D. Completed within the preceding 12 calendar months with a written knowledge test

72. Which of the following best describes the flight instructor recency-of-experience window under 14 CFR §61.197?

A. 12 calendar months with mandatory annual checkride

B. 6 calendar months with monthly recurrent ground training

C. 24 calendar months with several alternative satisfaction options

D. 36 calendar months with a Part 142 training course required

73. Which of the following best describes §91.3 as it applies to the pilot in command?

A. Requires the PIC to share command decisions equally with passengers

B. Permits delegation of command authority to any qualified passenger

C. Binds the PIC to ATC instructions even during declared emergencies

D. Establishes the PIC as directly responsible for, and the final authority over, the operation

74. Which of the following best describes hypoxic hypoxia?

A. Inadequate blood circulation due to G-forces or cold

B. Reduced blood oxygen-carrying capacity from carbon monoxide

C. Cellular inability to use oxygen, as caused by alcohol consumption

D. Insufficient oxygen partial pressure reaching the blood at altitude

75. Which of the following best describes the black-hole illusion?

A. A vestibular illusion produced by head movement during a stabilized turn

B. A visual illusion over featureless or unlit terrain that removes the cues needed to judge height

C. A radio communication illusion produced by frequency overlap

D. A weather phenomenon producing severe low-altitude turbulence

76. Which of the following best describes spatial disorientation?

A. A condition fully prevented by adequate cockpit ventilation

B. The inability to determine one's position, attitude, and motion relative to the earth

C. A regulatory restriction limited to night VFR flight

D. A normal sensation that should be ignored without further action

77. Which of the following correctly identifies the six elements of the IM SAFE checklist?

A. Inspection, maintenance, sealing, airworthiness, fuel, equipment

B. Instruments, mixture, switches, altimeter, flaps, electrical

C. Illness, medication, stress, alcohol, fatigue, emotion

D. Inertia, magnetism, signal, audio, fuel, engine

78. Which of the following statements about atmospheric stability is most accurate?

A. Stability is determined by the geographic latitude of the air mass

B. Stability is determined by the surface elevation beneath the air mass

C. Stability is determined by the lapse rate at which temperature decreases with altitude

D. Stability is determined solely by the moisture content of the air mass

79. Which of the following best describes the weather associated with a cold front?

A. A narrow band of intense, brief weather with a sharp wind shift at passage

B. A wide band of stratus and prolonged steady precipitation

C. Cool dry air with unlimited visibility for many hours

D. Persistent fog with no significant wind shift at passage

80. Which of the following best describes the weather associated with a warm front?

A. A narrow band of intense thunderstorms over a short duration

B. Cool dry air with scattered fair-weather cumulus only

C. A wide band of stratus, prolonged steady precipitation, and low ceilings

D. Severe clear-air turbulence above 20,000 feet only

81. Which stage of a thunderstorm's life cycle is the most violent, with coexisting updrafts and downdrafts, lightning, hail, and the strongest gust front?

A. The cumulus stage, marked by building updrafts only

B. The pre-cumulus stage, marked by clear air and rising temperatures

C. The dissipating stage, dominated by weakening downdrafts

D. The mature stage, beginning when precipitation reaches the surface

82. Which of the following correctly identifies the two simultaneous conditions required for structural icing?

A. Stable air and clear skies above the aircraft

B. Light precipitation and a stable atmospheric layer

C. High humidity and outside temperatures well above freezing

D. Visible moisture and aircraft surface temperatures at or below freezing

83. Which of the following correctly identifies the three simultaneous ingredients required for thunderstorm development?

A. Sufficient moisture, an unstable lapse rate, and a lifting mechanism

B. Stable air, dry conditions, and gentle vertical motion

C. Smooth steady winds, an inversion layer, and clear skies

D. Cool surface temperatures, low humidity, and high pressure

84. Which of the following best describes the subject of an AIRMET Zulu?

A. Severe convective activity producing thunderstorms

B. Mountain obscuration affecting VFR operations only

C. Strong surface winds and low-level turbulence

D. Icing conditions and freezing levels

85. Which of the following best describes a Convective SIGMET?

A. A routine observation of current weather at an airport

B. A warning of severe convective weather including thunderstorms producing tornadoes

C. A long-range outlook covering an entire flight corridor

D. An advisory of mountain obscuration affecting VFR operations

86. Which of the following best describes a METAR?

A. A 24-hour forecast of expected conditions at an airport

B. A routine observation of current weather at an airport

C. A warning of severe convective activity along major airways

D. A long-range outlook covering an entire flight corridor

87. Which of the following best describes the unique value of a PIREP?

A. It replaces the need for METARs and TAFs along the planned route

B. It is generated automatically by satellites scanning each system

C. It describes conditions actually encountered in flight by other pilots

D. It provides a binding legal forecast that ATC must enforce

88. Which of the following is the most appropriate briefing type when a pilot has received no prior information about a planned flight?

A. An outlook briefing valid for the next 12 hours only

B. An abbreviated briefing covering NOTAMs and ATC delays only

C. A NOTAM-only briefing requested directly from the tower

D. A standard briefing covering adverse conditions through NOTAMs

89. Which of the following is the correct response when known icing is encountered in an aircraft not approved for flight into known icing?

A. Continue at the planned altitude and increase cruise power slightly

B. Exit the icing conditions immediately by altitude or course change

C. Slow to the bottom of the white arc to reduce ice accumulation

D. Disable pitot heat to verify icing severity by indicated airspeed

90. Which of the following best describes a microburst encounter on approach?

A. Smooth conditions with only a gradual airspeed decrease throughout

B. A persistent crosswind from the right with no vertical component

C. A steady tailwind only, with no downdraft component

D. An increasing headwind, then a powerful downdraft, then a tailwind

91. Which of the following statements about a magneto check during run-up is most accurate?

A. A drop within the manufacturer's allowable range on each magneto is acceptable

B. A drop equal to zero on either magneto is the only acceptable result

C. A drop on a single magneto exceeding the allowable maximum indicates an ignition problem

D. A drop on both magnetos simultaneously is required before any takeoff

92. Which of the following statements about wing contamination such as frost or ice is most accurate?

A. Contamination has no effect because lift depends only on airspeed

B. Contamination increases stall speed and degrades takeoff and climb performance

C. Contamination reduces stall speed in proportion to its thickness

D. Contamination automatically increases maneuvering speed limits

93. Which of the following best describes a stall-spin accident pattern in the traffic pattern?

A. A coordinated steep turn at cruise airspeed leading to controlled flight

B. A cross-controlled, skidding base-to-final turn at low airspeed with the inside wing dropping

C. A normal go-around initiated early in the approach phase

D. A maneuver fully prevented by modern stall warning horns

94. Which of the following best describes a stress-driven student response during a power-on stall demonstration?

A. The student pulls the yoke aft when the stall warning sounds, opposite the trained AOA reduction

B. The student smoothly applies the trained recovery sequence as the manufacturer specifies

C. The student verbally declares an emergency and switches fuel tanks

D. The student lowers the gear and applies maximum braking immediately

95. Which of the following is the most useful conceptual framing for teaching a primary student about angle of attack and stall?

A. The airplane always stalls at the same angle of attack, but the airspeed varies with conditions

B. The airplane always stalls at the same airspeed regardless of conditions

C. The airplane stalls only when the throttle is reduced to idle

D. The airplane stalls only at low altitude near the surface

96. Which of the following describes the most likely surprise encountered by a pilot who relies on airspeed (rather than AOA) to manage stall margins?

A. A stall during straight and level cruise above maneuvering speed

B. An accelerated stall in a steep coordinated turn at low airspeed

C. A stall during an idle descent below the green arc lower limit

D. A stall during the normal takeoff roll prior to rotation airspeed

97. Which of the following best describes the structural protection provided by maneuvering speed (Va)?

A. Va protects from radio communication loss with ATC

B. Va protects from autopilot disengagement during turbulence

C. Va protects from structural damage caused by full deflection of a single flight control

D. Va protects from fuel pressure loss during severe maneuvering

98. Which of the following best describes the handling characteristics of an airplane with an aft CG (within the certified envelope) compared to a forward CG?

A. Higher stall speed and easier stall and spin recovery

B. No measurable change in handling characteristics

C. Lower stall speed and more difficult stall and spin recovery

D. Higher never-exceed speed and reduced wing area

99. Which of the following best describes the force that actually turns the airplane in a level coordinated turn?

A. The horizontal component of the lift vector when the wings are banked

B. The increased thrust from the powerplant pointed into the turn

C. The drag produced by deflected ailerons on the outside wing

D. The rudder pressure applied in the direction of the turn

100. Which of the following best describes lateral stability — resistance to rolling around the longitudinal axis?

A. Provided primarily by the dihedral angle built into the wings

B. Provided primarily by the vertical stabilizer acting as a weathervane

C. Provided primarily by the elevator trim setting in cruise

D. Provided primarily by the location of the center of gravity

101. Which of the following best describes directional stability — resistance to yawing around the vertical axis?

A. Provided primarily by the dihedral angle of the wings

B. Provided primarily by the elevator trim selected in cruise flight

C. Provided primarily by the horizontal stabilizer and CG location

D. Provided primarily by the vertical stabilizer acting as a weathervane

102. Which of the following correctly identifies the priority order during an engine failure in flight?

A. Communicate, navigate, aviate

B. Aviate, navigate, communicate

C. Communicate, aviate, navigate

D. Navigate, communicate, aviate

103. Which of the following is the first action after an engine failure?

A. Tune the radio to 121.5 and declare an emergency

B. Establish best-glide airspeed to maximize available time and distance

C. Open the cabin door immediately for emergency egress

D. Pull the mixture to idle cutoff to prevent further damage

104. Which of the following best describes a go-around from an unstabilized approach?

A. A normal pilot decision that should be initiated early when needed

B. An emergency reserved only for the final seconds before touchdown

C. A maneuver requiring explicit ATC clearance at all airports

D. A failure of approach planning that should be avoided at all costs

105. Which of the following correctly describes the sideslip (wing-low) crosswind landing method?

A. Aileron away from the wind and rudder in the same direction

B. Rudder only, with the wings held perfectly level throughout

C. Aileron into the wind and rudder opposite to align with the centerline

D. Full back elevator with no rudder input on the rollout

106. Which leg of a standard left-traffic pattern is flown parallel to the landing runway but in the opposite direction?

A. Crosswind leg, perpendicular to the departure end of the runway

B. Upwind leg, climbing away from the departure runway

C. Base leg, perpendicular to the approach end of the runway

D. Downwind leg, parallel to the runway but opposite the takeoff direction

107. Which of the following best describes the central principle of ground reference maneuvers?

A. Wind has no effect on the airplane once airborne

B. Bank angle must vary with the wind to keep a planned ground track

C. Bank angle should remain constant regardless of wind

D. The path through the air matters more than the path over the ground

108. Which of the following correctly describes wake-turbulence avoidance behind a heavy aircraft on takeoff?

A. Take off as quickly as possible to overtake below the heavy aircraft

B. Rotate prior to the heavy aircraft's rotation point and climb above its flight path

C. Take off heading 90 degrees from the heavy aircraft's departure heading

D. Climb directly through the heavy aircraft's wake at a high angle of attack

109. Which of the following best describes the source of mechanical turbulence?

A. Strong winds flowing across irregular terrain or obstacles

B. A clear stable air mass over level terrain with light winds

C. A smooth jet stream at high altitude over the open ocean

D. A high-altitude inversion layer in still atmospheric conditions

110. Which of the following statements about alcohol and flight safety is most accurate?

A. Caffeine and alcohol cancel each other out completely for flight purposes

B. Alcohol's effects pass entirely with adequate sleep before flight

C. The regulatory waiting period was designed to allow full alcohol elimination

D. Lingering effects and hangover symptoms can persist beyond the legal floor

111. Which of the following best describes how a pilot should treat an over-the-counter cold medication for flight?

A. Recognize that over-the-counter status does not mean "safe for flight"

B. Take the medication confidently because no prescription is required

C. Double the dose to clear symptoms quickly before departure

D. Avoid such medications during the entire calendar year regardless of need

112. Which of the following best describes negative transfer of learning?

A. The student transfers smoothly between two different airplane types

B. Earlier learning interferes with the acquisition of a new skill or knowledge

C. The student lacks any prior experience related to the new skill

D. The student is rewarded for completing a particularly difficult lesson

113. Which of the following best describes the operational value of a constant-speed propeller?

A. It eliminates manifold pressure management entirely at altitude

B. It allows the magnetos to be bypassed during cold starts

C. It permits operation without any RPM gauge in the cockpit

D. It allows the pilot to set RPM independently of throttle position to optimize performance

114. Which of the following best describes the proper interpretation of a slight RPM drop when carburetor heat is applied during run-up?

A. Heated air is reaching the carburetor, which is the desired result

B. A defective magneto requires grounded-out troubleshooting

C. A blocked fuel injection nozzle is restricting fuel flow

D. The carburetor heat system has failed to deliver warm air

115. Which of the following best describes the proper definition of maneuvering speed (Va)?

A. The maximum airspeed for autopilot engagement in turbulence

B. The maximum airspeed for flight into severe icing conditions

C. The maximum airspeed at which full deflection of a single control will not exceed the structural limit

D. The maximum airspeed for full landing flap extension on approach

116. Which of the following is the correct first action in the standardized stall recovery sequence?

A. Apply maximum allowable power before any other change

B. Roll the airplane into a steep banked turn for energy recovery

C. Retract all flaps immediately to clean up the wing

D. Reduce angle of attack by lowering the pitch attitude

117. Which of the following correctly describes the two conditions required for a spin?

A. Wings-level flight at maneuvering speed and idle thrust

B. A coordinated turn at maneuvering speed and full power applied

C. A stalled wing and the presence of yaw producing autorotation

D. Reduced visibility outside and partial loss of vacuum instruments

118. Which of the following correctly states the PARE spin recovery sequence?

A. Power smoothly to full takeoff setting before any other change

B. Power full, ailerons with the rotation, rudder neutral, elevator full back

C. Power idle, ailerons neutral, rudder opposite the rotation, elevator briskly forward

D. Power reduced, ailerons with the rotation, rudder neutral, elevator full back

119. Which of the following correctly describes when spin training in a typical general-aviation airplane is permissible?

A. Only when the aircraft is specifically certificated for intentional spins

B. Only when the aircraft is loaded to its aft CG limit

C. Only when the aircraft is filled to its maximum gross weight

D. Only when the aircraft is operated below 1,000 feet AGL

120. Which of the following best describes how a flight instructor's demonstration must be performed?

A. With deliberate imperfections so the student feels free to err

B. Exactly to the standard the student is expected to reach

C. With commentary unrelated to the maneuver being shown

D. Without any explanation phase if time is short

121. Which of the following correctly identifies the airworthiness requirements for an aircraft used for hire or flight instruction in an instructor-provided aircraft?

A. Both a current annual inspection and a current 100-hour inspection cycle

B. Annual inspection only, with no 100-hour cycle required

C. 100-hour inspection only, with no annual inspection required

D. Pilot certificate only, with no maintenance inspection required

122. Which of the following correctly identifies the regulatory home of the flight instructor recency rule under §61.197?

A. 14 CFR Part 43, governing maintenance and preventive maintenance

B. 14 CFR Part 67, governing medical certification standards

C. 14 CFR Part 71, governing the structure of designated airspace

D. 14 CFR Part 61 Subpart H, governing flight instructors

123. Which of the following best describes what a flight instructor's endorsement for solo flight in a specific make and model certifies?

A. That the student has paid all training fees through the end of the rating

B. That the student has received the required training and is proficient to solo that make and model

C. That the student holds a current first-class medical certificate

D. That the student is at least the minimum age for a commercial certificate

124. Which of the following correctly pairs the hazardous attitude of resignation with its antidote?

A. Resignation → "Follow the rules. They are usually right."

B. Resignation → "I'm not helpless. I can make a difference."

C. Resignation → "Taking chances is foolish."

D. Resignation → "Not so fast. Think first."

125. Which of the following best describes the effect of a 75% FIA score on the conduct of the upcoming practical test?

A. Eliminates the oral portion of the practical test entirely

B. Has no effect at all on the upcoming practical test conduct

C. Results in a reduced fee for the practical test

D. Increases the number of ACS codes the examiner must revisit during the oral

126. Which of the following best describes a well-designed lesson plan?

A. A rigid script that must be followed lesson-by-lesson with no deviation

B. A regulatory document submitted to the FAA annually

C. A flexible guide supporting the lesson's objective and adapting to the student

D. A list of regulations the student must memorize before any flight training

127. Which of the following correctly describes the required content of a flight review under §61.56?

A. 30 minutes of ground training and 30 minutes of flight training

B. 3 hours of ground training and 3 hours of flight training

C. 6 hours of ground training with no flight time required

D. At least 1 hour of ground training and 1 hour of flight training

128. Which of the following is the correct mnemonic for documents required aboard a civil aircraft for legal flight?

A. CARES: Certificate, Aircraft data, Registration, Equipment list, Standards

B. ARROW: Airworthiness, Registration, Radio (when required), Operating limitations, Weight and balance

C. FREES: Fuel records, Repair records, Equipment, Endorsements, Standards

D. POWER: Pilot certificate, Operating manual, Weight, Equipment, Registration

129. Which of the following is most accurate about hypoxia's effect on judgment?

A. Hypoxia degrades judgment only after the pilot recognizes symptoms

B. Hypoxia degrades judgment before the pilot recognizes the impairment

C. Hypoxia affects judgment only at altitudes above 25,000 feet

D. Hypoxia has no effect on judgment until all crew don oxygen

130. Which of the following is the appropriate instructional response when a student displays projection (blaming the airplane for personal errors)?

A. Aggressively confront the student until they admit fault publicly

B. Document each occurrence and refer the student to the FAA

C. Reduce stress, restore an earlier success, and rebuild a low-threat climate

D. Discontinue training and reassign the student to another instructor

131. Which of the following best describes why teaching a maneuver correctly the first time is more efficient than fixing it later?

A. The law of recency, since material learned last is best remembered

B. The law of primacy, since what is learned first creates a lasting impression

C. The law of effect, since pleasant feelings strengthen learning

D. The law of exercise, since things repeated are best remembered

132. Which of the following correctly identifies the proper response when icing is encountered in an aircraft not certified for flight into known icing?

A. Exit the icing conditions immediately by altitude or course change

B. Increase cruise power to maintain speed and prevent stalling

C. Slow to the bottom of the white arc to reduce accretion rate

D. Disable the pitot heat to verify icing severity by airspeed

133. Which of the following correctly identifies the first action in the standardized stall recovery sequence?

A. Apply full takeoff power before any other control change

B. Reduce angle of attack by lowering the pitch attitude

C. Retract all flaps immediately to clean up the wing

D. Roll the airplane into a steep banked turn for energy recovery

134. Which of the following correctly identifies the equipment required for VFR night operations?

A. Pitot heat and oxygen system regardless of altitude

B. Position lights, anti-collision lights, and an electrical source

C. A second altimeter cross-referenced to the primary altimeter

D. A constant-speed propeller regardless of engine type

135. Which of the following statements about Class B versus Class C airspace is most accurate?

A. Both classes require an explicit ATC clearance to enter

B. Both classes allow VFR entry without any communication

C. Class B requires an explicit clearance; Class C requires only two-way radio communication

D. Class B requires only communication; Class C requires an explicit clearance

136. Which of the following statements about VFR passenger-carrying recency is most accurate?

A. The 90-day rule applies to any category and class without distinction

B. The 90-day rule requires 5 takeoffs and landings in the preceding 90 days

C. Night passenger carriage requires only the day takeoff-and-landing requirement to be met

D. The 90-day rule requires three takeoffs and landings in the same category, class, and (if a type rating is required) type

137. Which of the following best describes the relationship between maneuvering speed and operating weight?

A. Va is fixed and does not change with operating weight

B. Va increases substantially as operating weight decreases below max gross

C. Va is replaced by Vne at any operating weight below max gross

D. Va decreases as operating weight decreases below maximum gross weight

138. Which of the following correctly identifies the effect of wing flaps deployed to a landing position?

A. They disable the stall warning system during landing

B. They eliminate the need for rudder coordination during the approach

C. They lower the stall speed and improve low-speed handling for landing

D. They reduce induced drag while increasing parasite drag dramatically

139. Which of the following correctly states the priority order during an engine failure in flight?

A. Communicate, navigate, aviate

B. Aviate, navigate, communicate

C. Communicate, aviate, navigate

D. Navigate, communicate, aviate

140. Which of the following best describes the most direct effect on a normally aspirated airplane at high density altitude?

A. Improved climb performance due to thinner intake air

B. Reduced engine power and longer takeoff distance

C. Increased maneuvering speed and improved acceleration

D. Reduced fuel consumption due to leaner mixture

141. Which of the following best describes the conclusion phase of a lesson and the law of learning it exploits?

A. It summarizes key points and exploits the law of recency

B. It introduces new material and exploits the law of primacy

C. It uses extended practice and exploits the law of exercise

D. It uses a dramatic finish and exploits the law of intensity

142. Which of the following best describes the conditions that produce strong wingtip vortices?

A. A light, dirty aircraft operating at high speed in climb

B. A heavy aircraft in clean configuration operating slowly on approach or initial climb

C. A light, clean aircraft operating well above maneuvering speed

D. A heavy aircraft fully configured for landing at high speed

143. Which of the following correctly describes the effect of contamination such as frost on a wing?

A. No effect because lift depends only on airspeed

B. Reduced stall speed proportional to contamination thickness

C. Increased stall speed and degraded takeoff and climb performance

D. Automatic increase in maneuvering speed limits

144. Which of the following best describes the pitot-static behavior when the pitot tube is blocked and the static port is clear?

A. The altimeter reverses its reading during climbs

B. The vertical speed indicator displays an inverted scale

C. The airspeed indicator behaves like an altimeter, reading high in a climb

D. The airspeed indicator freezes at the airspeed at the moment of blockage

145. Which of the following correctly identifies the source of lateral stability in a typical light aircraft?

A. The dihedral angle built into the wings

B. The vertical stabilizer acting as a weathervane against yaw

C. The horizontal stabilizer and CG location combined

D. The elevator trim setting selected for cruise flight

146. Which of the following correctly identifies the four stages of the four-stroke engine cycle in order?

A. Power, exhaust, intake, compression

B. Compression, intake, power, exhaust

C. Intake, compression, power, exhaust

D. Exhaust, power, compression, intake

147. Which of the following best describes the proper interpretation of an ACS code listed on a student's Airman Knowledge Test Report?

A. The code disqualifies the applicant from the practical test

B. The code determines the fee for the practical test

C. The code identifies a topic the examiner must revisit during the oral portion

D. The code sets the overall pilot certificate grade

148. Which of the following best describes a flight instructor's most important responsibility while providing instruction in the aircraft?

A. Completing all logbook entries during each maneuver

B. Maintaining overall situational awareness and the safety of the flight

C. Recording each maneuver for later review by a chief flight instructor

D. Selecting cruise altitudes that maximize fuel economy

149. Which of the following correctly describes the recency requirement for a flight review under §61.56?

A. Must be completed within the preceding 6 calendar months

B. Must be completed within the preceding 24 calendar months

C. Must be completed within the preceding 12 calendar months

D. Must be completed within the preceding 36 calendar months

150. Which of the following best describes the effect of a steep coordinated turn on stall speed?

A. Stall speed rises with the square root of load factor, exposing pilots to accelerated stall

B. Stall speed decreases because the wing is unloaded by the turn

C. Stall speed remains constant because angle of attack is unchanged

D. Stall speed becomes irrelevant once the airplane is in a coordinated turn

PRACTICE EXAM *5* – ANSWER KEY AND EXPLANATIONS

1. C — Physiological needs sit at the base of the hierarchy and must be satisfied before higher-order learning can occur. A hungry, exhausted, or oxygen-deprived student cannot engage at the esteem or self-actualization levels where genuine flight learning happens. The instructor manages basic needs as a precondition to teaching, not as an afterthought.

2. C — Positive motivation tied to meaningful reward builds confidence and durable learning, while negative motivation produces short-term compliance at the cost of anxiety and avoidance. The two approaches do not produce identical outcomes — they produce opposite ones. Linking each lesson to a reward the student already values is the instructor's leverage for durable progress.

3. D — Coordination is not a defense mechanism; it is a flight skill. Rationalization, projection, and compensation are all recognized defense mechanisms that students may deploy to protect self-esteem from criticism. Recognizing the recognized list lets the instructor diagnose what they are seeing rather than guessing.

4. D — Learning is defined as a change in behavior as a result of experience. Memorization, syllabus completion, and information transfer are activities that may or may not produce learning, but none is the definition. The definition forces the instructor to evaluate outcomes rather than effort or coverage.

5. C — A perceived element of threat narrows perception and blocks learning, because a frightened student fixates and loses the wider picture. Clear objectives, prior mastery, and curiosity all support learning, while only threat actively shuts it down. This is why a threatening instructor is by definition a poor one.

6. D — Concept formation, in which understandings are grouped into general principles applicable across many specific situations, is the deepest and most transferable level of knowledge. Memorization is the shallowest. Effective instruction moves the student from rote recall toward genuine conceptual mastery that handles unpracticed situations.

7. A — The law of primacy states that what is learned first creates the strongest and most lasting impression, which is why an instructor's first demonstration must be performed exactly to standard. A sloppy first demonstration plants a habit that is costly to remove later. Primacy is the operational reason for "get it right the first time" discipline.

8. C — A slip is correct intent with misfired execution, corrected by additional supervised practice. A mistake is wrong intent based on a flawed understanding, requiring re-teaching of the underlying concept. Confusing the two leads instructors to drill a mistake — which only deepens the wrong understanding.

9. D — Positive transfer occurs when earlier learning aids the acquisition of new learning, such as cruise pitch-power mastery supporting approach and landing development. The opposite is negative transfer. Naming the connection accelerates the transfer effect.

10. C — Short-term (working) memory has limited capacity and is easily overloaded by lengthy or complex briefings, making it the bottleneck in instruction. Long-term memory has the largest capacity; sensory memory is fleeting. Treating working memory as unlimited produces students who retain almost nothing of a long instruction.

11. C — Interference is the theory of forgetting in which new or competing learning crowds out earlier learning. Disuse is fading from lack of use; repression is suppression of unpleasant material; decay is a separate mechanism. Recognizing interference helps the instructor separate easily confused topics in the syllabus.

12. A — The affective domain addresses values, attitudes, and emotional responses including the safety-critical attitudes an aviator must hold. The cognitive domain covers knowledge and the psychomotor covers motor skills. Effective flight instruction engages all three; neglecting the affective domain produces a technically capable but dangerously attituded pilot.

13. B — The law of effect states that learning is strengthened by pleasant feelings and weakened by unpleasant ones. This is why ending a lesson on genuine success matters — the emotional outcome shapes the strength of what was learned. Negative endings undermine the learning the lesson produced.

14. A — Learning is an active process requiring student engagement; passive observation rarely produces durable change. The instructor builds engagement deliberately rather than allowing the student to merely sit and watch. A student who is not actively engaged is not learning regardless of time spent.

15. C — Communication is the transfer of meaning, and it succeeds only when the meaning received matches the meaning the instructor intended. Vocabulary, signal volume, and word arrangement are means, not the test of success. This is why instructors confirm understanding through questioning rather than assuming a nod equals comprehension.

16. C — Lack of common experience is the single greatest communication barrier, because words mean what experience has taught them to mean, and a beginner has not yet built the experience that gives technical language meaning. Accent, checklists, and age are real but secondary factors. Building common experience precedes precise vocabulary.

17. A — The teaching lecture, particularly with deliberate audience involvement, is the most efficient method for delivering a large body of factual information while mitigating the passivity that pure lectures invite. Demonstration-performance is for physical skill; pure SBT and student-led discovery do not handle raw information transfer as efficiently. The teaching lecture combines efficiency with engagement.

18. A — The demonstration-performance method proceeds through explanation, demonstration, student performance with supervision, and evaluation. This sequence mirrors how physical skill is naturally acquired: understand it, see it, do it under guidance, measure against the standard. Reordering or skipping phases weakens the method.

19. B — Scenario-based training is a specific form of problem-based learning organized around a realistic flight scenario in which the student applies knowledge and makes decisions in context. Its strength is teaching knowledge, skill, and judgment together rather than as isolated items. SBT is especially valuable for developing ADM and risk-management habits.

20. D — Sole reliance on outside references until the instrument rating is earned is the opposite of integrated flight instruction. The method teaches maneuvers both by outside visual reference and by reference to flight instruments from the very beginning of training, building cross-check habits early. This produces a more precise pilot better prepared for inadvertent loss of visibility.

21. D — The guided discussion method develops understanding by drawing knowledge out of the students through skillful questioning, with the instructor functioning as a facilitator. Pure lecture is one-way; demonstration-performance is for physical skill; passive video review is not a recognized active method. The method demands more preparation than a lecture, not less.

22. A — An instructional aid is valuable only when it supports the lesson's objective and supplements (rather than replaces) the instructor's teaching. Aids that impress for their own sake, replace the instructor, or permit silence fail the test. The instructor remains the teacher; aids are tools in the instructor's hands.

23. D — The four steps of the teaching process are preparation, presentation, application, and assessment — a closed, self-correcting cycle applicable at every scale of instruction. Each step is necessary; skipping any breaks the cycle. The framework structures a single concept, a lesson, and an entire course identically.

24. B — A performance-based objective specifies the skill or behavior the student will demonstrate, the conditions under which it will be performed, and the criterion that defines acceptable performance. Cost,

student count, and method preference are not required elements. Without the criterion, the objective cannot anchor assessment.

25. C — A course of training is built by identifying blocks of learning and sequencing them logically from foundational to advanced, so each block rests on the ones before it. Sequencing by calendar, instructor interest, or student choice produces dangerous gaps. Blocks-of-learning thinking prevents those gaps.

26. A — A training syllabus is a flexible guide that allows the instructor to adapt pace and sometimes sequence to the individual student. It provides essential structure without becoming a rigid script or regulatory document. Readiness, not the calendar, governs progression.

27. A — The conclusion of a lesson exploits the law of recency, since what is learned last is best remembered. The introduction engages motivation, development builds known-to-unknown, and the conclusion locks in key points through summary. The full structure deliberately applies the laws of learning to each lesson.

28. D — A low-threat learning environment is one in which the student feels safe enough to attempt, err, and be corrected. It is not an environment without standards or critique — those are required for learning. The best learning environments are simultaneously supportive and rigorous.

29. A — Formative assessment occurs during instruction and is used to shape ongoing learning, distinct from summative assessment that certifies achievement at milestones. Formative assessment is low-stakes and developmental; skilled instructors use it constantly. Reserving assessment for end-points squanders the chance to shape learning as it happens.

30. A — Effective assessment is specific, constructive, and tied to performance against the published standard rather than the student's personality. The ACS exists precisely to make assessment objective and consistent. This is what distinguishes assessment as instruction from criticism as personal commentary.

31. D — The ultimate goal of assessment is for the student to develop the ability to honestly self-assess against the standard, since they will fly without an instructor for the rest of their career. Reliance on the instructor's evaluation produces a pilot who cannot judge their own flying after the rating. Self-assessment is the affective-domain skill the certificate's safety record depends on.

32. D — A follow-up question probes deeper after the student's initial answer, testing the depth of understanding rather than its surface presence. Yes-or-no, toss-up, and trick questions either assess little or actively mislead. Skilled questioning is both an assessment tool and a teaching method.

33. A — The Airman Certification Standards integrate knowledge, risk management, and skill elements within each task, refusing to treat them as separate concerns. A competent pilot integrates all three in flight, and the ACS reflects that reality. This integration is the ACS's defining structural feature.

34. D — ACS codes on the Airman Knowledge Test Report identify topics the examiner must revisit during the oral portion of the practical test. Every missed written question becomes a guaranteed oral-exam topic. Higher written scores hand examiners fewer codes and produce shorter, less probing orals.

35. C — An endorsement is a formal certification that the applicant meets the required standard the endorsement references. It is relied upon by the student, examiner, FAA, and flying public. An instructor who signs casually breaches the trust the certificate represents.

36. D — A premature endorsement to please a student or to keep a schedule is a breach of the trust the instructor's certificate represents. It exposes an unprepared pilot to a test or flight they cannot safely manage and exposes the instructor's certificate to consequences. The standard, not the relationship or the schedule, governs every endorsement.

37. A — Professional development is a continuing obligation throughout the instructor's career, because aviation knowledge, regulations, technology, and best practices evolve. The certificate is the beginning of professional development, not its endpoint. An instructor who stops learning quickly teaches outdated material and models complacency.

38. D — PAVE identifies risk across Pilot, Aircraft, enVironment, and External pressures — the fourth category covering schedules, expectations, and get-there-itis. The other choices are not recognized aviation risk-management frameworks. External pressures drive many accident chains.

39. C — Aeronautical decision-making is the systematic approach pilots use to consistently determine the best course of action in response to a given set of circumstances. It is taught and learned through structured frameworks, not improvised by intuition. ADM is what turns knowledge and skill into safe outcomes.

40. D — Curiosity is not on the recognized list of hazardous attitudes. The five are anti-authority, impulsivity, invulnerability, macho, and resignation, each paired with a specific antidote. Knowing the list precisely is required FOI content.

41. D — Invulnerability is the hazardous attitude characterized by "It won't happen to me," in which the pilot discounts personal risk despite recognizing the hazard. The antidote is the deliberate substitution of "It could happen to me." Each attitude has a specific antidote tied to its specific thought.

42. A — Resignation's correct antidote is "I'm not helpless. I can make a difference." Macho's antidote is "Taking chances is foolish"; anti-authority's is "Follow the rules. They are usually right"; impulsivity's is "Not so fast. Think first." Each attitude is paired with one specific antidote that the pilot consciously substitutes.

43. B — Single-pilot resource management is the art of managing all resources available to a pilot operating alone — inside and outside the cockpit. It encompasses ADM, task management, situational awareness, automation management, and the use of every resource. SRM is the practical discipline through which a lone pilot manages human-factors risk.

44. A — An instructor who models discipline with checklists, weather, and personal minimums teaches primarily in the affective domain, where attitudes and habits are formed. The cognitive content of these procedures is straightforward; the durable lesson is the attitude the student absorbs from watching the instructor. Modeling the right attitudes is among the most important instructor duties.

45. A — The hazard unique to instructing is the continuous teaching-versus-safety division of attention that solo pilots never face. The instructor must allow the student latitude to learn while standing ready to intervene before any error becomes dangerous. Managing this tension is itself a learned instructor skill.

46. B — Crew resource management is the effective use of all available resources — human, hardware, and information — to ensure a safe flight. It originated in multi-crew aviation but informs single-pilot operations through SRM. CRM is not a regulation, a maneuver, or an optional course.

47. B — Every Part One chapter closes with the recognition and correction of student errors as the defining instructor skill, because this diagnostic discipline — observing accurately, inferring intent, distinguishing slip from mistake, correcting the cause — is what separates an instructor from a pilot who can merely fly. Speed, raw precision, and marketing are not the defining skill.

48. C — When a student deploys a defense mechanism, the correct response is to reduce stress, restore an earlier success, and rebuild a low-threat climate so the student can re-engage. Aggressive confrontation deepens the defense; reporting and reassignment are not appropriate. Defense mechanisms signal stalled learning, not a defective student.

49. A — ADM is most effectively taught through scenario-based training, where the student applies decision principles in realistic context. Multiple-choice testing of theory, memorized checklists, and avoidance of all decisions do not build the decision habit. SBT is the primary vehicle for ADM instruction.

50. C — The instructor's defining task in teaching ADM is to internalize in the student a habit of honest hazard recognition and structured decisions, rather than memorize answers, avoid variable flights, or rely on the instructor. ADM is built through repeated practice in scenarios where the student must actually decide. The outcome is a pilot who decides honestly under pressure long after the rating.

51. B — Angle of attack is the angle between the wing's chord line and the relative wind — not the longitudinal axis, not pitch attitude, not airspeed. AOA is the variable that directly determines coefficient of lift and the stall. This precise definition is foundational; confusing it with pitch attitude is the root of many student misconceptions.

52. B — When a wing exceeds its critical angle of attack, airflow over the upper surface separates and the wing stalls regardless of airspeed. Lift drops sharply, induced drag spikes, and recovery requires only one action: reduce AOA. This is the core principle behind every stall lesson.

53. D — Induced drag arises as a byproduct of producing lift and dominates at low airspeeds, where high AOA is required to maintain altitude. Parasite drag dominates at high airspeeds. The crossover defines best lift-to-drag and best glide speed.

54. B — Va decreases at operating weights below maximum gross weight, counterintuitively, because a lighter airplane is accelerated more easily by a given aerodynamic force and reaches limit G at a lower airspeed. The heavier the airplane, the higher its Va. The FIA tests this weight relationship reliably.

55. B — The critical angle of attack of a given wing in a given clean configuration is essentially constant, regardless of weight, bank angle, or density altitude. What varies is the airspeed at which the wing is forced up to that angle. This single concept is the foundation of teaching stalls correctly.

56. C — Increased load factor — produced by maneuvering or a steep turn — raises the stall speed because the wing must produce more lift and reaches the critical AOA at a higher airspeed. Reducing weight, extending flaps, and lower density altitude all lower stall speed. The accelerated stall is a direct consequence of load factor.

57. C — Ground effect reduces induced drag near the surface (within roughly one wingspan of the ground), which can cause the airplane to float on landing as the wing's apparent efficiency improves. The phenomenon is real and exam-tested. Managing the float is a primary landing-phase teaching point.

58. A — Wingtip vortices are strongest from heavy, clean (no flaps), and slow aircraft — the configuration of a large jet on approach or initial climb. The strength of the vortex is the source of induced drag and the wake that trails the airplane. Knowing the heavy-clean-slow signature directs wake-avoidance behavior precisely.

59. D — A four-stroke reciprocating engine cycle proceeds intake, compression, power, exhaust — repeating continuously across the cylinders. Intake draws the mixture in, compression squeezes it, combustion produces the power stroke, and exhaust expels the burned gases. Memorizing the sequence supports diagnosing roughness and misfires.

60. A — Carburetor ice can form across a wide range of temperatures — including warm days — wherever sufficient moisture and the venturi effect cool the air below freezing inside the carburetor. It is not restricted to obviously cold conditions. The pilot's defense is carburetor heat applied per the manufacturer's procedure.

61. C — As the airplane climbs without mixture adjustment, air density decreases while fuel flow stays roughly the same, producing a progressively richer fuel-air mixture. Leaning restores the correct ratio and recovers efficiency and full available power. This is why mixture management is required cruise procedure at altitude.

62. D — A fuel-injected engine is immune to carburetor ice because no carburetor is present, but it has its own characteristic concerns including vapor lock and more sensitive hot-start procedures. Each system has unique teaching points the instructor must cover. The trade-off between systems is a recurring FIA topic.

63. A — A blocked pitot tube with an open static port causes the airspeed indicator to behave like an altimeter — reading high in a climb (as ambient static decreases while ram pressure is trapped) and low in a descent. This is the classic blocked-pitot signature the FIA tests reliably. Recognizing it allows the pilot to fall back on pitch-and-power references.

64. D — A blocked static port causes the altimeter and vertical speed indicator to freeze and renders the airspeed reading unreliable, because all three pitot-static instruments depend on accurate static pressure. The pilot must use the alternate static source if available. This is the classic blocked-static signature.

65. B — ARROW captures the required-aboard documents: Airworthiness certificate, Registration, Radio station license (when required), Operating limitations (including the flight manual), and Weight-and-balance data. CARES, FREES, and POWER are not standard mnemonics. The pilot verifies ARROW during preflight; absence makes the flight unlawful.

66. C — The annual inspection is required for all civil aircraft every 12 calendar months from the previous annual, performed by an authorized inspector. An airplane without a current annual is not airworthy regardless of other inspections. The 12-calendar-month interval is exam-tested precisely.

67. A — A 100-hour inspection is required in addition to the annual when an aircraft is used for hire or for flight instruction in an instructor-provided aircraft. The annual covers the same scope and can substitute for a 100-hour, but a 100-hour cannot substitute for an annual. CFI candidates teaching in their own airplane must keep both cycles current.

68. A — Class B airspace, surrounding the busiest airports, requires an explicit ATC clearance to enter. Two-way radio communication alone is not sufficient; a transponder alone is not sufficient. The clearance requirement is what makes Class B the most controlled VFR-accessible airspace class.

69. B — Two-way radio communication must be established with ATC before entering Class C airspace, around moderately busy towered airports with radar approach control. The same rule applies to Class D. Class B requires the additional explicit clearance; Class E and G have no entry-communication requirement for VFR.

70. D — To carry passengers under Part 91, a pilot must have completed three takeoffs and landings within the preceding 90 days in the same category, class, and (if a type rating is required) type of aircraft. Tailwheel and night passenger carriage add parallel requirements. The 90-day window is exam-tested precisely.

71. A — A flight review under §61.56 must be completed within the preceding 24 calendar months and include at least 1 hour of ground training and 1 hour of flight training with an authorized instructor. The review covers Part 91 rules and maneuvers appropriate to the pilot. The 24-month interval is the headline FIA fact.

72. C — A flight instructor's recency-of-experience requirements under §61.197 are evaluated over the preceding 24 calendar months, with several alternative options for satisfaction including renewal courses and additional rating checkrides. An instructor who fails to satisfy any option may not exercise instructor privileges until reinstated. The 24-month window matches the flight review interval.

73. D — §91.3 establishes the pilot in command as directly responsible for, and the final authority over, the operation of the aircraft. In an in-flight emergency, the PIC may deviate from any rule to the extent required to meet the emergency, reporting afterward as required. This authority is paired with full accountability.

74. D — Hypoxic hypoxia is caused by insufficient oxygen partial pressure reaching the blood, most commonly from reduced partial pressure at altitude. Hypemic hypoxia involves reduced blood-carrying capacity (carbon monoxide), stagnant involves circulation problems, and histotoxic involves cellular

inability to use oxygen (alcohol). Hypoxic hypoxia is the form pilots most directly manage through altitude discipline and supplemental oxygen.

75. B — The black-hole illusion occurs over featureless or unlit terrain at night, where the visual cues normally used to judge height on approach are missing. Pilots are tempted to descend low, producing landing-short accidents. The defense is reliance on instruments and a stabilized profile rather than the visual sight picture alone.

76. B — Spatial disorientation is the inability to determine one's position, attitude, and motion relative to the earth, arising from conflict among the body's orientation senses when visual reference is lost. It is not a sensation to ignore, a regulation, or a ventilation problem. The defense is trusting the flight instruments rather than the body's senses.

77. C — The IM SAFE personal self-assessment evaluates Illness, Medication, Stress, Alcohol, Fatigue, and Emotion. It is performed before every flight as an honest self-evaluation. A failed item should produce a no-go decision; teaching the affective habit of acting on the result is the instructor's responsibility.

78. C — Atmospheric stability is determined by the lapse rate — the rate at which temperature decreases with altitude. A steep lapse rate favors instability; a shallow or inverted lapse rate favors stability. Latitude, moisture amount, and surface elevation are separate factors that combine with stability to produce specific weather.

79. A — A cold front produces a narrow band of intense, brief weather with a sharp wind shift and temperature drop at frontal passage — cumulus, possible thunderstorms, gusty winds. Warm fronts produce wide bands of prolonged precipitation; smooth conditions and persistent fog do not match the cold-front signature. The narrow-and-intense pattern is uniquely the cold front.

80. C — A warm front produces a wide band of stratus, prolonged steady precipitation, and low ceilings extending hundreds of miles ahead of the surface front. Narrow thunderstorm bands are cold-front signatures; cool dry conditions are post-frontal high-pressure signatures. Warm-front weather is less violent but lasts much longer than a cold-front pass.

81. D — The mature stage of a thunderstorm begins when precipitation reaches the surface and is the most violent stage because updrafts and downdrafts coexist with heavy rain, lightning, hail, and the strongest gust front. The cumulus stage features updrafts only; the dissipating stage is dominated by weakening downdrafts. Mature-stage cells are unsurvivable for light aircraft attempting penetration.

82. D — Structural icing requires two conditions simultaneously: visible moisture (cloud or precipitation) and aircraft surface temperatures at or below freezing. Either alone does not produce icing. Recognizing icing through both requirements lets the pilot identify icing risk across the full range of conditions.

83. A — Thunderstorm development requires three simultaneous ingredients: sufficient moisture, an unstable lapse rate, and a lifting mechanism. All three must be present together; removing any one prevents development. Recognizing this lets the pilot anticipate convective activity from forecast products.

84. D — AIRMET Zulu advises pilots of icing conditions and freezing levels. AIRMET Sierra covers IFR and mountain obscuration; AIRMET Tango covers turbulence and strong surface winds. Each AIRMET type has a defined subject area instructors and pilots must know by name.

85. B — A Convective SIGMET advises of severe convective weather — thunderstorms producing severe turbulence, hail, surface winds of 50 knots or more, and tornadoes. It is the strongest convective-weather warning short of a tornado watch. Routine observations and outlooks operate at lower thresholds.

86. B — A METAR is a routine observation of current weather at an airport, issued hourly with special reports as conditions change significantly. A TAF is the forecast counterpart; warning products and route forecasts differ in purpose. METARs answer the question "what is the weather right now at this airport?"

87. C — Pilot reports describe conditions actually encountered in flight by other pilots, uniquely valuable because they confirm or contradict the forecast picture from real airborne experience. They are not satellite-generated, do not replace METARs and TAFs, and are not binding forecasts. Pilots are professionally obligated to make PIREPs as well as read them.

88. D — A standard briefing is the comprehensive briefing requested when the pilot has not received prior information about a planned flight. It covers adverse conditions, synopsis, current conditions, forecast en-route and destination weather, alternates, winds aloft, NOTAMs, and ATC delays. Abbreviated briefings update existing information; outlook briefings cover flights six or more hours away.

89. B — When known icing is encountered in an aircraft not approved for flight into known icing, the only correct response is to exit the icing conditions immediately by altitude or course change. Continuing or slowing increases ice accumulation; disabling pitot heat is dangerous. Avoidance is the defense; exit is the response when avoidance has failed.

90. D — A microburst encounter on approach produces, in sequence, an increasing headwind (apparent performance gain), then a powerful downdraft, then a tailwind (performance loss). The pilot's natural reactions — reducing power for the gain, then over-correcting for the sink — are exactly wrong. Avoidance is the only defense for light aircraft.

91. C — A magneto check during run-up is normal when each magneto produces a drop within the manufacturer's allowable range, with the differential between the two also within limits. A drop on a single magneto exceeding the allowable maximum indicates a faulty ignition component requiring correction before flight. Zero drop suggests a grounding problem; identical drops on both is not required.

92. B — Wing contamination — frost or ice — disrupts airflow, reduces the maximum coefficient of lift, raises the stall speed, and degrades takeoff and climb performance. The effect can be dramatic even from a thin layer. All contamination must be removed before flight, regardless of how minor it appears.

93. B — A skidding cross-controlled base-to-final turn at low airspeed with the inside wing dropping is the classic stall-spin accident pattern in the traffic pattern — among the deadliest fatal-accident profiles in general aviation. It is not a normal turn, a go-around, or a maneuver the stall horn prevents. The prevention discipline is to recognize the setup and go around.

94. A — A stress-driven student response during a power-on stall is to pull the yoke aft when the stall warning sounds, opposite the trained AOA reduction. Pitot malfunction, fuel-tank switches, and gear extension do not fit the pattern. The correction is repeated controlled demonstrations and the verbal cue of "release back pressure" rather than commanding aggressive nose-down inputs.

95. A — The most useful conceptual framing is that the airplane always stalls at the same angle of attack, but the airspeed at which the wing reaches that angle varies with weight, load factor, density altitude, configuration, and contamination. Teaching stalls as an airspeed event plants a misconception that fails in turns and contamination. AOA-centered thinking is the instructor's most important conceptual move.

96. B — A pilot relying on airspeed rather than AOA is most likely to be surprised by an accelerated stall in a steep coordinated turn at low airspeed, because load factor raises the stall speed above what the airspeed indicator suggests. Cruise, idle descent, and takeoff before rotation are not the surprise scenarios. Teaching AOA-centered thinking prevents this specific surprise.

97. C — Maneuvering speed (Va) is the maximum airspeed at which full deflection of a single control will not exceed the airplane's structural limit, because at or below Va the wing will stall before structural damage occurs. It is not a radio, autopilot, or fuel limit. Above Va, severe turbulence or sudden control input can produce structural overload.

98. C — An aft CG within the certified envelope produces lower stall speed (the tail downforce required is reduced, lightening the effective wing load) and more difficult stall and spin recovery. The trade is accepted for a slight cruise gain. Beyond the aft limit, spin recovery may be impossible — the aft limit is the safety-critical boundary.

99. A — In a coordinated turn, the horizontal component of the lift vector — produced when the wings are banked — provides the centripetal force that turns the airplane. The vertical component still supports weight, requiring increased total lift. Neither thrust nor rudder turns the airplane; bank does, with rudder coordinating the turn.

100. A — Lateral stability — resistance to rolling around the longitudinal axis — is provided primarily by dihedral, the upward angle of the wings from horizontal. Dihedral causes a sideslipping airplane to roll back toward wings-level. Vertical stabilizer provides directional stability; trim and CG affect longitudinal stability.

101. D — The vertical stabilizer acts as a weathervane against the relative wind, providing directional stability around the vertical axis. Dihedral provides lateral stability; the horizontal stabilizer and CG location affect longitudinal stability; elevator trim sets pitch reference. Each axis has its own primary stabilizing surface.

102. B — Aviate, navigate, communicate is the priority order during an engine failure: fly the airplane first, navigate to a chosen field second, communicate with ATC third. Reversing this priority has killed pilots who talked on the radio while losing control. The mnemonic is taught as a reflex until it operates without conscious thought.

103. B — The first action after an engine failure is to establish best-glide airspeed, maximizing the time and distance available to evaluate options and act. Restart attempts, radio calls, and cockpit preparation follow only after the airplane is flying the optimal glide. Restart actions before establishing the glide consume the pilot's only fixed resource — time aloft.

104. A — A go-around is a normal pilot decision that should be initiated early when an approach is not stabilized or predictable. It is not a last-resort emergency, a clearance-requiring maneuver, or a sign of failure. Teaching the go-around as a default response prevents many landing-phase accidents.

105. C — The sideslip (wing-low) method uses aileron into the wind to control drift and rudder opposite to keep the longitudinal axis aligned with the runway centerline. The result is a controlled slip that tracks the centerline through touchdown. Aileron away from the wind would drift the airplane away from the centerline.

106. D — The downwind leg is parallel to the landing runway but flown in the opposite direction, typically at pattern altitude. Upwind is the leg paralleling the runway after departure; crosswind is perpendicular at the departure end; base is perpendicular at the approach end. Knowing the legs by name is required for traffic-pattern operations.

107. B — Ground reference maneuvers teach the student that bank angle must vary with the wind component to keep a planned ground track, because the airplane drifts with the wind while the desired path is fixed over the ground. The bank is steepest where groundspeed is highest. This wind-correction discipline is the maneuver's central teaching purpose.

108. B — Wake-turbulence avoidance behind a heavy aircraft on takeoff calls for the following aircraft to rotate prior to the heavy aircraft's rotation point and climb above its flight path, staying above the descending wake. Taking off underneath, departing perpendicular, or penetrating at high AOA are unsafe. The principle is to stay above and upwind of where the wake will be.

109. A — Mechanical turbulence is produced by strong winds flowing across irregular terrain or obstacles, particularly on the leeward side of mountains and buildings. Stable air over level terrain, smooth jet streams, and inversion layers do not generate mechanical turbulence by their nature. Recognizing it lets the pilot anticipate rough air downwind of terrain features.

110. D — Lingering effects and hangover symptoms can persist beyond the legal minimum waiting period after alcohol consumption, impairing a pilot who believes themselves fit. The regulatory waiting period is a legal floor, not a safety guarantee. Alcohol also aggravates hypoxia through histotoxic effects at altitude.

111. A — Over-the-counter status does not mean a medication is safe for flight; many cold, allergy, and pain remedies carry warnings against operating machinery that apply fully to flying. The pilot should understand the effects of any substance and the condition it treats before flight. "Available without prescription" is not a clearance for cockpit use.

112. B — Negative transfer occurs when earlier learning interferes with the acquisition of new learning, such as a habit appropriate to one aircraft causing errors in another. Smooth transfer between types is

positive transfer; absent prior experience is no transfer at all; rewards are unrelated. Anticipating negative transfer helps the instructor anticipate where students will struggle.

113. D — A constant-speed propeller allows the pilot to set RPM independently of throttle position, with propeller pitch adjusting automatically to maintain the selected RPM. The pilot manages manifold pressure with the throttle and RPM with the propeller control. This enables optimization of climb, cruise, and descent that a fixed-pitch propeller cannot match.

114. A — Carburetor heat routes warm air to the carburetor, and a slight RPM drop during the run-up confirms that the heated air is reaching it — the heated air is less dense, producing the expected drop. No drop would suggest the heat system is not functioning. The check verifies the system before it is needed in flight.

115. C — Maneuvering speed (Va) is the maximum airspeed at which full deflection of a single control will not exceed the airplane's structural limit, because at or below Va the wing will stall before structural damage occurs. It is not an icing, autopilot, or flap-extension limit. Above Va, a sudden full-deflection input can produce structural damage.

116. D — The first action in the standardized stall recovery is to reduce angle of attack by lowering the pitch attitude, because nothing else recovers the wing once it is stalled. Adding power before reducing AOA can deepen the stall through the pitch-up tendency. Rolling wings level and adding power follow only after the wing is unstalled.

117. C — A spin requires two conditions simultaneously: a stalled wing and the presence of yaw producing autorotation. Without either ingredient the spin cannot develop. Recognizing the two-ingredient structure makes spin avoidance teachable — break either ingredient and the spin cannot occur.

118. C — The PARE recovery sequence is Power idle, Ailerons neutral, Rudder full opposite the rotation, Elevator briskly forward through neutral to break the stall. Each step is necessary and the order matters; the manufacturer's specific procedure for the airplane in use always governs. Aileron use during a spin can aggravate autorotation; the standard is neutral.

119. A — Spin training in a typical general-aviation airplane is permissible only when the aircraft is specifically certificated for intentional spins. Spinning a non-spin-certificated aircraft can produce an unrecoverable result. CG must also be within the certified envelope and sufficient altitude available for recovery.

120. B — The instructor's demonstration must be performed exactly to the standard the student is expected to reach, because the law of primacy makes the first model the most enduring. Deliberate imperfections plant errors; off-topic commentary distracts; skipping the explanation breaks the method's sequence. Instructor proficiency in the maneuver being demonstrated is non-negotiable.

121. A — An aircraft used for hire or for flight instruction in an instructor-provided airplane must have both a current annual inspection (the baseline for all civil aircraft) and a current 100-hour inspection cycle. Neither alone is sufficient. The annual can substitute for a 100-hour, but not vice versa.

122. D — The flight instructor recency rule under §61.197 lives in 14 CFR Part 61 Subpart H, which governs flight instructors. Part 43 covers maintenance, Part 67 covers medical, and Part 71 covers airspace structure. Knowing which part governs which subject is foundational regulatory navigation for the FIA.

123. B — A solo endorsement certifies that the student has received the required training and is proficient to solo the specific make and model of aircraft, based on the instructor's personal determination. Fee payment, medical currency, and age are separate matters not certified by this endorsement. The endorsement is the instructor's professional certification of solo readiness.

124. B — The antidote to resignation ("What's the use?") is "I'm not helpless. I can make a difference." Each hazardous attitude has its specific paired antidote that the pilot consciously substitutes. Recognizing the attitude is half the corrective work; deliberately applying its antidote completes it.

125. D — A 75% score on the FIA leaves a relatively large number of ACS codes the examiner must revisit during the oral portion of the practical test, producing a longer and more probing oral exam. The score does not eliminate the oral, change fees, or have no effect — it directly shapes the oral the candidate will face. Higher written scores hand examiners fewer codes.

126. C — A lesson plan is a flexible guide that supports the lesson's objective and adapts to the individual student, not a rigid script or regulatory document. It serves the preparation step of the teaching process by ensuring the lesson has a clear objective, organized content, and connections to past and future learning. Flexibility-with-objective is what makes it useful.

127. D — A flight review under §61.56 must include at least 1 hour of ground training and 1 hour of flight training with an authorized instructor. The review must cover Part 91 rules and maneuvers appropriate to the pilot. Completion is logged with the instructor's endorsement.

128. B — ARROW captures the required-aboard documents: Airworthiness certificate, Registration, Radio station license (when required for international ops), Operating limitations (including the flight manual), and Weight-and-balance data. CARES, FREES, and POWER are not standard mnemonics. The pilot verifies ARROW during preflight; absence makes the flight unlawful.

129. B — Hypoxia degrades judgment before the pilot recognizes the impairment, which is the central danger of the condition. By the time symptoms might prompt concern, the impaired judgment caused by hypoxia may prevent the pilot from acting. The defense is anticipation — oxygen and altitude discipline — not symptom recognition.

130. C — When a student displays projection — blaming the airplane for personal errors — the correct response is to reduce stress, restore an earlier success, and rebuild a low-threat climate so the student can re-engage. Aggressive confrontation deepens the defense; reporting and reassignment are not appropriate. Defense mechanisms signal stalled learning, not a defective student.

131. B — The law of primacy holds that what is learned first creates the strongest and most lasting impression, which is why teaching a maneuver correctly the first time is more efficient than fixing it later. Unlearning a wrong technique and replacing it is far more costly than teaching correctly from the start. Primacy is the operational reason for "right the first time" discipline.

132. A — When known icing is encountered in an aircraft not certified for flight into known icing, the only correct response is to exit the icing conditions immediately by altitude or course change. Continuing, slowing, or disabling pitot heat increases the danger. Avoidance is the defense; exit is the response when avoidance has failed.

133. B — The first action in the standardized stall recovery is to reduce angle of attack by lowering the pitch attitude, because nothing else recovers the wing once it is stalled. Adding power, retracting flaps, or banking before reducing AOA cannot break the stall and may deepen it. AOA reduction is mandatory and first.

134. B — VFR night operations require functioning position lights (red, green, white), an anti-collision light system, and an electrical source adequate to power them. Pitot heat is required only for IFR or flight into known icing; a second altimeter and a constant-speed propeller are not VFR night equipment requirements. Equipment list for night VFR is exam-tested directly.

135. C — Class B requires an explicit ATC clearance to enter, while Class C requires only two-way radio communication established before entry. The clearance vs. communication distinction is the central difference between the two classes. Confusing the two produces costly airspace violations.

136. D — The 90-day rule under §61.57 requires three takeoffs and landings in the preceding 90 days in the same category, class, and (if a type rating is required) type of aircraft for carrying passengers. The 5-landing rule does not exist; category and class do matter; night currency adds the additional requirement of full-stop landings to a stand of its own. The 90-day, same category/class window is exam-tested precisely.

137. D — Va decreases as operating weight decreases below maximum gross weight, counterintuitively, because a lighter airplane is accelerated more easily by a given aerodynamic force and reaches limit G at a lower airspeed. Va does not become fixed or replaced by Vne at lighter weights. The FIA tests this relationship reliably.

138. C — Wing flaps deployed to a landing position lower the stall speed and improve low-speed handling, which is precisely why they are used for landing. They do not eliminate rudder coordination, disable the stall warning, or affect drag in the manner described in the wrong options. The stall-speed reduction is the safety benefit at approach airspeed.

139. B — Aviate, navigate, communicate is the priority order during an engine failure: fly the airplane first, navigate to a chosen field second, communicate with ATC third. Reversing this priority has killed pilots who talked on the radio while losing control. The mnemonic is taught as a reflex until it operates without conscious thought.

140. B — A pilot at high density altitude in a normally aspirated airplane experiences reduced engine power (thinner intake air) and longer takeoff distance. Maneuvering speed, climb performance, and fuel consumption do not improve at altitude. The combined power-and-lift reduction is what makes hot-high-humid takeoffs hazardous.

141. A — The conclusion phase summarizes the key points of the lesson and exploits the law of recency, since what is learned last is best remembered. The introduction engages motivation, development builds known-to-unknown, and the conclusion locks in key points. The full structure deliberately applies the laws of learning.

142. B — Wingtip vortices are strongest from heavy, clean (no flaps), and slow aircraft — the configuration of a large jet on approach or initial climb. The strength of the vortex is the source of induced drag and the wake that trails the airplane. Knowing the heavy-clean-slow signature directs wake-avoidance behavior precisely.

143. C — Wing contamination such as frost disrupts airflow, reduces the maximum coefficient of lift, raises the stall speed, and degrades takeoff and climb performance. The effect is real and can be dramatic from even a thin layer. All contamination must be removed before flight, regardless of how minor it appears.

144. C — A blocked pitot tube with an open static port causes the airspeed indicator to behave like an altimeter — reading high in a climb (as ambient static decreases while ram pressure is trapped) and low in a descent. The altimeter and VSI continue functioning normally because the static port is clear. Recognizing this signature allows fall-back to pitch-and-power references.

145. A — Lateral stability — resistance to rolling around the longitudinal axis — is provided primarily by dihedral, the upward angle of the wings from horizontal. Dihedral causes a sideslipping airplane to roll back toward wings-level. Vertical stabilizer provides directional stability; horizontal stabilizer and trim affect longitudinal stability.

146. C — A four-stroke reciprocating engine cycle proceeds intake, compression, power, exhaust — repeating continuously across the cylinders. Intake draws the mixture in, compression squeezes it, combustion produces the power stroke, and exhaust expels the burned gases. Memorizing the sequence supports diagnosing roughness and misfires.

147. C — An ACS code on the Airman Knowledge Test Report identifies a topic the examiner must revisit during the oral portion of the practical test. Every missed written question becomes a guaranteed oral-exam topic. Higher written scores hand examiners fewer codes and produce shorter, less probing orals.

148. B — Overall situational awareness and the safety of the flight always take priority over teaching tasks. The instructor remains the pilot in command and cannot trade safety for completion of syllabus items, documentation, or fuel economy. Teaching is the secondary task; safety is the primary one.

149. B — A flight review under §61.56 must be completed within the preceding 24 calendar months — the headline FIA fact for pilot currency. The review consists of at least 1 hour of ground training and 1 hour of flight training with an authorized instructor. Certain alternative activities such as the FAA Wings program can satisfy the requirement.

150. A — Stall speed rises with the square root of load factor, exposing the pilot to an accelerated stall in a steep coordinated turn. Stall speed does not decrease or remain constant in a turn — the wing must

produce more lift, reaches the critical AOA at a higher airspeed, and stalls earlier than the 1-G value would suggest. This is the central aerodynamic reason a tight turn at low airspeed is dangerous.