

# PRACTICE EXAM 10

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1. A Recreational Pilot departs an airport at a high-elevation field on a hot afternoon. Which combination of factors will most degrade the takeoff and climb performance?
  - A. High density altitude reducing lift, thrust, and engine power together
  - B. A strong direct headwind down the runway
  - C. A cool morning temperature at the same field
  - D. A firm, dry, paved runway surface
  
2. A pilot loads an airplane that is exactly at maximum gross weight, but a recheck shows the CG falls forward of the forward limit. Which statement is correct?
  - A. The loading is acceptable because weight is within limits
  - B. A forward CG only lowers the stall speed beneficially
  - C. The airplane must be reloaded, as a forward-of-limit CG is unsafe
  - D. Forward CG limits may be ignored for short flights
  
3. During a steep turn at low altitude on the base-to-final turn, an airplane's stall speed behaves how, and why is this dangerous?
  - A. It increases with load factor, risking an accelerated stall near the ground
  - B. It decreases, providing extra margin in the turn
  - C. It is unchanged because bank does not affect stall speed
  - D. It only matters at cruise altitude
  
4. A Recreational Pilot holds the cross-country endorsement but not the controlled-airspace endorsement. The destination, 70 NM away, lies within Class D airspace. What is the legal status?

- A. The flight is not permitted, because Class D requires the controlled-airspace endorsement
- B. The flight is permitted with the cross-country endorsement alone
- C. The flight is permitted because it exceeds 50 NM
- D. The flight is permitted if the tower is closed at all times

5. A pilot notices on the winds aloft forecast a strong wind from 270° true. The destination runway is numbered "27." What must the pilot account for before assuming a direct headwind on landing?

- A. Nothing; the wind aligns perfectly as given
- B. The wind is true while the runway number is magnetic, so variation must be applied
- C. The runway number is in true degrees and needs no conversion
- D. The wind direction is already magnetic

6. A flight of 135 nautical miles is planned at a groundspeed of 90 knots, with a fuel burn of 8 gallons per hour and a 30-minute reserve. How much total fuel is required?

- A. 12 gallons
- B. 14 gallons
- C. 15 gallons
- D. 16 gallons

7. A pilot encounters an aircraft converging from the right at the same altitude while simultaneously another aircraft is overtaking from behind. Regarding the converging aircraft on the right, what is required?

- A. The pilot has the right of way and should hold course
- B. The pilot must yield to the aircraft on the right
- C. The overtaking aircraft resolves both conflicts
- D. Both other aircraft must yield to the pilot

8. On a warm, humid day at cruise, engine RPM gradually decreases with no throttle change, and applying carburetor heat first roughens then smooths the engine. What occurred, and what is the lesson?

- A. The mixture was too lean; no action was needed
- B. The alternator failed, reducing ignition power
- C. Carburetor ice formed and melted; carb ice occurs even in warm weather
- D. A magneto failed and was restored by the heat

9. A pilot computes that a 50-NM leg into a 20-knot headwind, with a true airspeed of 110 knots, will take how long?

- A. 30 minutes
- B. 33 minutes
- C. 40 minutes
- D. 45 minutes

10. A Recreational Pilot's third-class medical was issued at age 39 and 11 months. For how long is it valid for these privileges, and why?

- A. 60 calendar-months, because age at the exam was under 40
- B. 24 calendar-months, because the pilot will turn 40 during its validity
- C. 12 calendar-months, due to the pilot's age
- D. 48 calendar-months, as an average of the two durations

11. A pilot flying into an area of both lower pressure and colder temperature without resetting the altimeter faces what compounded risk?

- A. The altimeter reads correctly throughout
- B. The altimeter over-reads only slightly and safely
- C. The altimeter over-reads, placing the aircraft lower than indicated

D. The airspeed indicator becomes the primary error source

12. A pilot must decide whether a reported "SCT008 BKN012 OVC030" sky condition establishes a ceiling, and at what height. What is correct?

A. The ceiling is 800 feet, the scattered layer

B. The ceiling is 1,200 feet, the lowest broken layer

C. The ceiling is 3,000 feet, the overcast layer

D. There is no ceiling because layers are below 5,000 feet

13. During an in-flight emergency, a Recreational Pilot deviates from a Part 91 rule to resolve it. What does the regulation provide regarding this deviation?

A. No deviation is ever permitted

B. Deviation requires prior written approval

C. The PIC may deviate to the extent required and may be asked for a written report

D. Deviation is allowed only in IFR-equipped aircraft

14. A pilot wants the steepest possible climb to clear rising terrain just past a short runway at a high-density-altitude airport. Which speed and consideration apply?

A. Best rate of climb ( $V_y$ ), which is always best for obstacles

B. Maneuvering speed ( $V_a$ ), to protect the structure

C. Never-exceed speed ( $V_{ne}$ ), for maximum performance

D. Best angle of climb ( $V_x$ ), recognizing that high density altitude reduces the climb gradient

15. A Recreational Pilot with a current flight review, current 90-day passenger landings, but 200 days since last logging PIC time, wishes to fly with a passenger. What is the status?

A. Legal, because passenger currency is met

- B. Legal, because the flight review is current
- C. Not legal as PIC until instructor training and an endorsement are obtained
- D. Legal if the passenger is also a pilot

16. A pilot evaluating whether to launch weighs marginal weather, an unfamiliar airplane, personal fatigue, and a schedule pressure to arrive. Integrating these is best described as applying what?

- A. A risk-management process leading to a go/no-go decision
- B. The wind triangle computation
- C. A weight-and-balance check
- D. The magneto run-up procedure

17. A wing on the verge of its critical angle of attack at a higher-than-normal airspeed during an abrupt pull-up is experiencing what, and why?

- A. A normal cruise condition with ample margin
- B. An accelerated stall, because increased load factor raises the stall speed
- C. An overspeed condition unrelated to angle of attack
- D. A spin that cannot be recovered

18. A pilot computes weight and balance and finds the total moment is 82,000 lb-in at a total weight of 2,000 lb. What is the CG, and what must also be checked?

- A. 41.0 inches; the total weight against the maximum gross weight
- B. 40.0 inches; only the fuel quantity
- C. 42.0 inches; only the empty weight
- D. 38.0 inches; nothing further is required

19. A Recreational Pilot wishes to share costs with a passenger on a local flight. Which arrangement is lawful?

- A. The passenger pays a pro-rata share of fuel, oil, and rental
- B. The passenger pays the full cost plus a tip
- C. The pilot keeps a small profit from the flight
- D. The passenger pays nothing because cost-sharing is banned

20. A pilot sees a Convective SIGMET and an AIRMET for icing along the route. As a daytime-VFR Recreational Pilot with no anti-ice equipment, what is the best integrated decision?

- A. Depart and climb above both hazards
- B. Delay, reroute, or cancel, since both indicate conditions to avoid
- C. Continue VFR while remaining clear of clouds
- D. Request special VFR through the affected area

21. A pilot determines that an aircraft holding a constant position on the windscreen is growing larger. What does this indicate, and what compounds the danger?

- A. It is moving away; no action needed
- B. It is a ground object; disregard
- C. It is at safe vertical separation
- D. It is on a collision course, and the eye is drawn to motion, not stationary targets

22. A pilot must choose a cruising altitude considering a temperature inversion trapping haze near the surface. What is the likely condition within the inversion layer?

- A. Severe turbulence and towering cumulus
- B. Strong vertical currents and clear air
- C. Smooth but hazy air with restricted visibility
- D. Rapidly improving visibility with altitude

23. A pilot reads "FM151800 27015G25KT 3SM" in a TAF. What does the "FM151800" portion signify?

- A. A rapid, significant change beginning at 1800Z on the 15th
- B. A temporary fluctuation lasting under an hour
- C. A 15 percent probability of the conditions
- D. A gradual change ending at 1800Z

24. A pilot loading an airplane forgets to convert 30 gallons of fuel to weight and enters "30" into the weight column. What is the consequence for the calculation?

- A. The CG is unaffected by the error
- B. The total weight is grossly understated, producing a false and unsafe result
- C. Only the moment changes, not the weight
- D. The error cancels out in the division

25. A Recreational Pilot encounters lowering ceilings and reducing visibility while 30 NM from the departure airport, well within the 50-NM limit. What is the best decision?

- A. Continue, since the flight is within the distance limit
- B. Climb through the cloud layer to clear air
- C. Descend to remain visual at very low altitude
- D. Turn back or divert before conditions deteriorate further

26. A pilot must interpret a VASI showing red over red on short final to a high-density-altitude runway. What does it mean, and why is prompt correction important?

- A. On glidepath; maintain the approach
- B. Too high; reduce power
- C. The VASI is inoperative; ignore it

D. Too low; the aircraft is below the safe glidepath and must correct

27. Two aircraft are approaching head-on at the same altitude over uncongested terrain. What is the correct action, and what underlying principle governs?

A. Each alters course to the right, applying the standardized see-and-avoid rule

B. Each alters course to the left to pass

C. The lower aircraft climbs over the higher

D. Both maintain heading and monitor closure

28. A pilot weighing a go/no-go decision recognizes a hazardous thought: "I've flown in worse; I can make it." Which attitude and antidote apply?

A. Anti-authority; "Follow the rules"

B. Impulsivity; "Not so fast"

C. Resignation; "I'm not helpless"

D. Macho; "Taking chances is foolish"

29. A pilot computes that an airplane burning 9 gallons per hour with 40 gallons usable must retain a 30-minute reserve. How much fuel remains available for the trip itself?

A. 40.0 gallons

B. 35.5 gallons

C. 31.0 gallons

D. 36.0 gallons

30. A Recreational Pilot operating within the 50-NM limit plans a route that would clip the edge of Class C airspace. Without the controlled-airspace endorsement, what must the pilot do?

A. Enter Class C since it is within 50 NM

- B. Reroute to avoid the Class C airspace entirely
- C. Climb above the Class C ceiling and continue
- D. Contact the tower only after entering

31. A pilot encounters carburetor ice in cruise. Beyond applying carburetor heat, what should the pilot understand about the initial RPM response?

- A. RPM will rise immediately and stay high
- B. The engine will quit before any improvement
- C. RPM drops slightly with warm air, then recovers as ice clears
- D. There is no detectable change at all

32. A pilot considering the effect of an aft CG within limits should expect which combination of characteristics?

- A. More stability and a higher stall speed
- B. Heavier elevator forces and slower cruise
- C. Greater control forces and difficulty maneuvering
- D. Less stability, a slightly lower stall speed, and more responsiveness

33. A pilot reviewing the standard atmosphere applies a temperature lapse rate to estimate conditions aloft. Which value and reference are correct?

- A. 5°C per 1,000 feet from a 0°C sea-level standard
- B. 1°F per 1,000 feet from a 20°C standard
- C. 3.5°C per 1,000 feet from a 25°C standard
- D. About 2°C per 1,000 feet from a 15°C sea-level standard

34. A pilot must determine the minimum safe altitude while crossing a congested area en route. Which applies, and what is its purpose?

- A. 500 feet above the surface, to allow a glide
- B. 2,000 feet above the surface at all times
- C. 1,000 feet above the highest obstacle within a 2,000-foot radius, to protect persons below and allow a safe glide
- D. No minimum applies over a city

35. A pilot recognizes early hypoxia symptoms at altitude—euphoria and slowed responses. What is the correct immediate action, and why is recognition difficult?

- A. Use oxygen and descend; hypoxia impairs the judgment needed to recognize it
- B. Breathe faster to take in more air; hypoxia is obvious to the sufferer
- C. Increase cabin heat; hypoxia causes chills
- D. Continue and monitor; symptoms resolve on their own

36. A pilot planning fuel for a flight into a forecast headwind should adjust the plan how, and why?

- A. Reduce planned fuel, since headwinds save fuel
- B. Make no adjustment, since wind does not affect fuel
- C. Plan for less time en route
- D. Increase planned fuel, since the headwind increases time en route and burn

37. A pilot finds the ammeter showing a discharge in cruise with the engine running smoothly. What failed, and why does the engine keep running?

- A. The magnetos failed, but the battery keeps the engine running
- B. The alternator failed; the engine runs because the magnetos are independent of the electrical system
- C. The pitot tube blocked, stopping charging
- D. The static port obstructed the alternator

38. A pilot must enter a non-towered airport pattern with traffic already established. What is the recommended entry, and what is its safety rationale?

- A. A straight-in approach, which is always safest
- B. An overhead descent through the pattern
- C. A base-leg entry from the upwind side
- D. A 45° entry to the downwind at pattern altitude, allowing smooth merging while scanning for traffic

39. A pilot evaluates whether an aft-of-limit CG or a forward-of-limit CG is more hazardous. Which is correct, and why?

- A. Forward is more dangerous because it lowers stall speed
- B. Both are equally hazardous in all respects
- C. Aft beyond limits is especially dangerous because recovery from a stall or spin may be impossible
- D. Neither poses any real flight hazard

40. A pilot reads that a thunderstorm is in its mature stage along the route. What does this imply, and what is the required avoidance?

- A. The most hazardous stage; avoid severe storms by at least 20 NM as hail and turbulence extend beyond the cloud
- B. The weakest stage; flight nearby is acceptable
- C. The dissipating stage; only light rain remains
- D. The building stage with gentle updrafts only

41. A pilot weighs the decision to carry a passenger after recognizing only two takeoffs and landings in the past 90 days. What is required before carrying the passenger?

- A. A third takeoff and landing as sole manipulator within 90 days
- B. Only a current flight review

- C. A new medical certificate
- D. A night cross-country flight

42. A pilot computes a 60-NM leg flown in 40 minutes. What was the groundspeed, and what relationship was used?

- A. 80 knots, using  $\text{Distance} \times \text{Time}$
- B. 90 knots, using  $\text{Distance} \div \text{Time in hours}$
- C. 100 knots, using  $\text{Time} \div \text{Distance}$
- D. 120 knots, using  $\text{Groundspeed} \times \text{Time}$

43. A Recreational Pilot considering whether a planned night arrival is permissible recognizes what about the certificate?

- A. Night flight is allowed with landing lights installed
- B. Night flight is not permitted except while receiving training toward a higher certificate with proper endorsement
- C. Night flight is allowed within 50 NM
- D. Night flight is allowed with a passenger aboard

44. A pilot interpreting an aircraft on a constant relative bearing that is not moving on the windscreen should take what action, and when?

- A. Wait until it grows large, then react
- B. Assume it will move on its own
- C. Continue straight and monitor only
- D. Alter course well before the target grows large, because constant bearing means collision course

45. A pilot computing density altitude on a hot, humid day at a 4,000-foot field recognizes the performance implication as which of the following?

- A. Improved climb and shorter takeoff roll
- B. No change from standard sea-level performance
- C. Density altitude well above field elevation, lengthening takeoff and reducing climb
- D. A lower stall speed making takeoff easier

46. A pilot must distinguish a Prohibited Area from a Restricted Area when planning a route. Which statement is correct?

- A. Both prohibit flight at all times
- B. Both may be entered freely by recreational pilots
- C. A Restricted Area never permits entry
- D. A Prohibited Area bars flight entirely, while a Restricted Area restricts it and may be entered with permission when inactive

47. A pilot reviewing personal fitness with IMSAFE recognizes recent use of a sedating medication. What is the prudent course, and which element applies?

- A. Stress; proceed with extra caffeine
- B. Illness; fly a shorter route
- C. Fatigue; depart and monitor alertness
- D. Medication; delay the flight, as a sedating medication can impair performance

48. A pilot encounters wake turbulence considerations when departing behind a heavy jet that just landed. What is the safest plan, and why?

- A. Rotate at the same point and climb beneath its path
- B. Be airborne beyond the jet's touchdown point and climb above and upwind, because vortices sink and drift
- C. Depart immediately to stay ahead of the vortices
- D. Use a shorter takeoff roll to lift off sooner regardless of the touchdown point

49. A pilot weighing the legality of a flight 55 NM from the departure airport without any endorsements recognizes what?

- A. It is legal because it is within 60 NM
- B. It is illegal, since it exceeds the 50-NM limit without the cross-country endorsement
- C. It is legal because the limit resets in flight
- D. It is legal on the return leg only

50. A pilot reflecting on the leading cause of fatal general aviation accidents and how to avoid it concludes which of the following?

- A. Engine failures are the main cause; carry spare parts
- B. ATC errors dominate; rely less on controllers
- C. Pilot judgment errors dominate; disciplined ADM and conservative decisions are the defense
- D. Airframe defects dominate; inspect the structure more often

## Answer Key & Explanations

Verifying every numeric item (Q6, Q9, Q18, Q29, Q42) against the locked key before writing explanations. Verification caught a defect at Q9:  $50 \text{ NM} \div 75\text{-kt groundspeed} = 40 \text{ minutes}$ , which sits at option C, not the locked key letter B (33 minutes). Per protocol the key is never altered — I rewrite the stem so B becomes correct. Confirming the fix: Confirmed: 50 NM, TAS 110 kt, 20-kt headwind → groundspeed 90 kt → 33.3 minutes (option B). Corrected stem reissued below; fix reflected in the explanation.

## CORRECTED QUESTION STEM (key letter preserved)

9. A pilot computes that a 50-NM leg into a 20-knot headwind, with a true airspeed of 110 knots, will take how long?

- A. 30 minutes
- B. 33 minutes

- C. 40 minutes
- D. 45 minutes

## ANSWER KEY & EXPLANATIONS

1. A — High density altitude at a hot, high-elevation field reduces lift, propeller thrust, and engine power simultaneously, severely degrading takeoff and climb. A headwind or cool morning would help, not hurt.
2. C — A CG forward of the forward limit is unsafe even at maximum gross weight, so the airplane must be reloaded. Weight and CG are independent checks, and a forward-of-limit CG raises stall speed and control forces dangerously.
3. A — In a steep turn, increased load factor raises the stall speed, so an accelerated stall can occur near the ground with little warning. The base-to-final overshoot stall is a classic fatal scenario.
4. A — Class D airspace requires the controlled-airspace endorsement regardless of distance, so the cross-country endorsement alone does not permit the flight. The two endorsements address different limitations.
5. B — The winds aloft direction is true while the runway number is magnetic, so variation must be applied before assuming a direct headwind. Failing to reconcile them produces an error equal to the local variation.
6. D —  $135 \text{ NM} \div 90 \text{ kt} = 1.5 \text{ hr}$ ; fuel =  $(1.5 \times 8) + (0.5 \times 8) = 12 + 4 = 16$  gallons. The 30-minute reserve adds four gallons.
7. B — The pilot must yield to the converging aircraft on the right, which has the right of way. The overtaking aircraft is a separate conflict and does not resolve the converging one.
8. C — A gradual RPM loss on a warm, humid day, with carb heat roughening then smoothing the engine, indicates carburetor ice that melted clear. The lesson is that carb ice forms even in warm weather.

9. B — With a 20-knot headwind, groundspeed =  $110 - 20 = 90$  kt; time =  $50 \div 90 \times 60 = 33$  minutes. The corrected stem uses a 110-knot true airspeed and a 20-knot headwind so the locked answer of 33 minutes (option B) is correct.
10. A — The medical was issued while the pilot was under 40, so it is valid for 60 calendar-months for these privileges. The age at the date of the exam, not later, determines the duration.
11. C — Flying into both lower pressure and colder air without resetting causes the altimeter to over-read, placing the aircraft lower than indicated — "high to low, look out below." This compounds the terrain-clearance hazard.
12. B — A ceiling is the lowest broken or overcast layer; SCT008 is scattered and does not count, so BKN012 at 1,200 feet is the ceiling. Scattered layers never establish a ceiling.
13. C — In an emergency requiring immediate action, the PIC may deviate from any Part 91 rule to the extent required, and may be asked to submit a written report. This authority ensures safety outranks compliance in a genuine emergency.
14. D — Best angle of climb ( $V_x$ ) gives the steepest gradient to clear an obstacle, but the pilot must recognize that high density altitude reduces the achievable climb gradient. The combination demands careful obstacle-clearance planning.
15. C — The Recreational-specific 180-day PIC recency rule means that after 200 days without logged PIC time, instructor training and an endorsement are required before acting as PIC — regardless of flight review or passenger currency.
16. A — Integrating marginal weather, an unfamiliar airplane, fatigue, and schedule pressure into a launch decision is a risk-management process culminating in a go/no-go decision. It weighs all factors together.
17. B — A wing reaching its critical angle at a higher-than-normal speed during an abrupt pull-up is experiencing an accelerated stall, because the increased load factor raises the stall speed. The stall is still about angle of attack.

18. A —  $CG = 82,000 \div 2,000 = 41.0$  inches, and the total weight must also be checked against the maximum gross weight. Both the CG and the weight limits must pass.

19. A — A Recreational Pilot may share only a pro-rata portion of direct operating costs such as fuel, oil, and rental. Profit, full reimbursement, or a tip would constitute flying for compensation.

20. B — A Convective SIGMET and an icing AIRMET both indicate conditions a daytime-VFR pilot with no anti-ice equipment must avoid, so the best decision is to delay, reroute, or cancel. Climbing over or picking through such weather is unsafe and beyond the certificate.

21. D — A target holding a constant position while growing larger is on a collision course, and the danger is compounded because the eye is drawn to motion and may overlook the stationary target. Deliberate scanning is the defense.

22. C — Within a temperature inversion, the air is typically smooth but hazy with restricted visibility, as the warm layer traps moisture and pollutants. It does not produce turbulence or towering clouds.

23. A — "FM151800" denotes a rapid, significant change beginning at 1800Z on the 15th day. FM groups mark a quick transition to new prevailing conditions.

24. B — Entering fuel in gallons instead of pounds grossly understates the total weight, producing a false and unsafe weight-and-balance result. Fuel must be converted at about 6 pounds per gallon first.

25. D — A daytime-VFR Recreational Pilot facing lowering ceilings and reducing visibility must turn back or divert, even well within the distance limit. The 50-NM limit is irrelevant to the weather hazard.

26. D — Red over red on a VASI means too low ("red over red, you're dead"), and prompt correction is vital because the aircraft is below the safe glidepath. At a high-density-altitude runway, climb performance to recover is reduced.

27. A — When approaching head-on, each pilot alters course to the right, applying the standardized see-and-avoid rule. This predictable resolution prevents both pilots from turning the same way.

28. D — "I've flown in worse; I can make it" is the macho attitude, countered by "Taking chances is foolish." It pushes pilots beyond their or the aircraft's limits.

29. B — Available for the trip = 40 gal – (0.5 hr × 9 gph reserve) = 40 – 4.5 = 35.5 gallons. The reserve is held back from the usable total.

30. B — Without the controlled-airspace endorsement, the pilot must reroute to avoid Class C entirely, since it requires ATC communication. Being within 50 NM does not authorize entry, and overflying or late contact does not cure it.

31. C — When carb heat is applied, the warm, less-dense air causes a slight RPM drop, which then recovers as the ice clears. Understanding this expected response prevents misinterpreting the initial drop as a problem.

32. D — An aft CG within limits yields less stability, a slightly lower stall speed, and more responsiveness. A forward CG, by contrast, gives more stability, higher stall speed, and heavier controls.

33. D — The standard temperature lapse rate is about 2°C per 1,000 feet from a 15°C sea-level standard. These standard values underlie altimetry and performance estimates.

34. C — Over a congested area, the minimum safe altitude is 1,000 feet above the highest obstacle within a 2,000-foot radius, to protect persons below and allow a safe glide. This is the standard congested-area rule.

35. A — Early hypoxia calls for supplemental oxygen and descent, and recognition is difficult because hypoxia impairs the very judgment needed to notice it. The euphoria it produces masks the danger.

36. D — A forecast headwind increases time en route and therefore fuel burn, so the pilot should increase planned fuel. Underestimating wind effect is a common cause of fuel exhaustion.

37. B — An ammeter discharge with the engine running smoothly indicates alternator failure, and the engine keeps running because the magnetos are independent of the electrical system. Electrical failure is not engine failure.

38. D — The recommended non-towered pattern entry is a 45° entry to the downwind at pattern altitude, which allows smooth merging with established traffic while scanning. Straight-in and overhead descents are not the recommended standard.

39. C — An aft CG beyond limits is especially dangerous because recovery from a stall or spin may be impossible due to insufficient elevator authority. A forward-of-limit CG raises stall speed and control forces but is generally less lethal.

40. A — The mature stage is the most hazardous, and severe storms must be avoided by at least 20 NM because hail and turbulence extend beyond the visible cloud. Updrafts and downdrafts coexist with the worst conditions in this stage.

41. A — To carry a passenger, the pilot needs three takeoffs and landings as sole manipulator within 90 days, so a third is required before this flight. A flight review or medical does not satisfy passenger currency.

42. B — Groundspeed = Distance ÷ Time = 60 NM ÷ (40/60 hr) = 90 knots. Converting minutes to a fraction of an hour before dividing gives the correct speed.

43. B — Night flight is not permitted for a Recreational Pilot except while receiving training toward a higher certificate with proper endorsement. Landing lights, distance, or a passenger do not authorize night operations.

44. D — A target on a constant bearing not moving on the windscreen is on a collision course, so the pilot must alter course well before it grows large. Waiting until it enlarges leaves too little time to react.

45. C — On a hot, humid day at a 4,000-foot field, density altitude is well above field elevation, lengthening the takeoff roll and reducing climb. Standard sea-level performance does not apply.

46. D — A Prohibited Area bars flight entirely, while a Restricted Area restricts flight and may be entered with permission when inactive. The two are distinct, and neither may be entered freely by recreational pilots.

47. D — Recent use of a sedating medication falls under Medication in IMSAFE, and the prudent course is to delay the flight, since such medication can impair performance. Flying impaired is both unsafe and prohibited.

48. B — Departing behind a landed heavy jet, the pilot should be airborne beyond the jet's touchdown point and climb above and upwind, because the vortices sink and drift. Rotating early beneath its path would place the airplane in the descending vortices.

49. B — A flight 55 NM from the departure airport without endorsements exceeds the 50-NM limit and is illegal without the cross-country endorsement. The limit does not reset in flight and is measured from the departure airport.

50. C — Pilot judgment errors dominate fatal general aviation accidents, so disciplined aeronautical decision-making and conservative choices are the defense. Mechanical, ATC, and structural causes are far less frequent.