PRACTICE EXAM 14 (60 QUESTIONS)

1. A WAAS receiver annunciates a downgrade from "LPV" to "LNAV" while inside the final approach fix on an RNAV approach. The correct response is to:

A. Continue to the LPV decision altitude using the existing glidepath

B. Immediately disconnect the autopilot and circle to land

C. Continue to the higher LNAV MDA without vertical guidance

D. Descend below the LPV minimums using the prior glidepath data

2. During an RNAV approach, the GPS displays "RAIM not available" prior to the final approach fix. The pilot should:

A. Discontinue the approach and use an alternate procedure or facility

B. Continue and rely on the moving map display for guidance

C. Reduce speed and proceed to the lowest published minimums

D. Switch the receiver off and back on to restore RAIM coverage

3. A pilot is cleared "direct PXT, then as filed." The aircraft's RNAV system shows PXT as a VOR/DME. Flying "direct" requires the aircraft to:

A. Intercept the nearest published airway before proceeding

B. Navigate a great-circle track to PXT using RNAV guidance

C. Request radar vectors all the way to the PXT facility

D. Track an outbound VOR radial from the departure airport

4. On a coupled approach, the flight director and autopilot are tracking the localizer when the localizer signal is flagged. The autopilot will most appropriately:

A. Continue tracking the last valid localizer course indefinitely

B. Capture the glideslope and begin a descent to the runway

C. Increase bank angle to reacquire the failed localizer signal

D. Revert to a basic mode such as heading hold and stop tracking

5. A "T" or "TAA" (Terminal Arrival Area) on an RNAV approach is divided into sectors that provide:

A. Radar vectoring areas controlled solely by approach control

B. Holding patterns required at each initial approach fix

C. Visual approach segments usable only in VMC conditions

D. Minimum altitudes and a structured transition to the approach

6. An aircraft loses primary attitude information on a glass-cockpit PFD. The pilot should transition to the:

A. Multifunction display's moving map for attitude reference

B. Engine instrument display for backup attitude data

C. Standby (backup) attitude indicator and supporting instruments

D. GPS track-up display to maintain wings-level flight

7. A pilot flying an RNP approach receives a "UNABLE RNP" alert. This indicates the:

A. Approach has been cancelled by air traffic control

B. Aircraft has exceeded the maximum holding airspeed

C. Navigation system cannot meet the required containment

D. Glideslope transmitter at the airport has failed

8. When an IFR flight plan lists "/G" or an equivalent RNAV equipment suffix, it informs ATC that the aircraft:

A. Requires radar vectors for all phases of flight

B. Is equipped with an approved GPS for IFR navigation

C. Can only accept clearances along published airways

D. Has no area navigation capability on board

9. A pilot established in a hold receives "cleared to ABCDE, climb and maintain 9,000, expect further clearance 0230." If communications are lost before reaching ABCDE, the pilot should:

A. Hold at the present position until reaching the EFC time

B. Climb to 9,000 and proceed directly to the destination at once

C. Proceed to ABCDE per the clearance and hold until the EFC time

D. Descend to the MEA and squawk 7700 for emergency handling

10. The lateral guidance scaling on an RNAV (GPS) approach typically becomes more sensitive as the aircraft:

A. Climbs to a higher en route altitude after departure

B. Crosses the initial approach fix into the en route phase

C. Transitions from en route through terminal to the final segment

D. Enters a holding pattern at the missed approach point

11. A pilot must determine whether GPS may substitute for an out-of-service ADF or DME on a conventional approach. Generally, a suitable IFR GPS may:

A. Substitute for ADF and DME to identify fixes and fly arcs

B. Substitute only for the missed approach segment guidance

C. Never substitute for any ground-based navigation aid

D. Substitute only when radar monitoring is also available

12. On a flight management system, "VNAV" coupled to the autopilot during an arrival will:

A. Provide lateral turn anticipation only at each waypoint

B. Maintain a constant indicated airspeed regardless of altitude

C. Fly a computed vertical profile honoring altitude constraints

D. Disconnect automatically at the final approach fix every time

13. A pilot encounters an unexpected total electrical failure in IMC with a battery-powered backup attitude indicator and a handheld radio. The first priority is to:

A. Attempt to restart the alternator by cycling the master switch

B. Maintain aircraft control using the available backup instruments

C. Immediately squawk 7700 before establishing aircraft control

D. Begin a rapid descent to exit the clouds without delay

14. An RNAV departure procedure (RNAV SID) requires the aircraft to have:

A. A functioning ADF receiver for the initial segment

B. RNAV equipment meeting the procedure's navigation specification

C. Dual VOR receivers tuned to the departure facility

D. A radar altimeter for the obstacle clearance computation

15. A pilot notices the GPS-derived groundspeed and the airspeed indicator differ substantially in cruise. This difference is most likely explained by:

A. A malfunction in the GPS position computation algorithm

B. An error in the pitot-static system requiring maintenance

C. The wind component acting along the aircraft's flight path

D. A magnetic compass deviation affecting the displayed track

16. When an approach chart shows the note "GPS or RADAR required" for an intermediate fix, a pilot without GPS may still fly the approach if:

A. The aircraft is equipped with a functioning ADF receiver

B. ATC is able to provide radar identification of the fix

C. The pilot estimates the fix position using dead reckoning

D. The missed approach is flown using timing from the FAF

17. A "hold-in-lieu-of-procedure-turn" (HILPT) depicted at an intermediate fix is used to:

A. Reverse course and lose altitude to align with the final approach

B. Provide a missed approach holding pattern after the runway

C. Sequence arriving traffic during periods of high congestion

D. Establish the visual descent point on the final segment

18. A pilot flying an RNAV route receives "cleared direct, resume own navigation" after vectors. The RNAV system should be set to:

A. Sequence to and navigate toward the active flight plan waypoint

B. Hold the current heading until manually overridden by the pilot

C. Revert to VOR navigation using the nearest ground station

D. Display only the moving map without active course guidance

19. The autopilot "altitude preselect" function, when armed during a climb, will:

A. Increase the climb rate continuously until fuel exhaustion

B. Disconnect the autopilot upon reaching the selected altitude

C. Capture and level the aircraft at the preselected altitude

D. Ignore the selected altitude unless VNAV is also engaged

20. A pilot flying a procedure with LNAV/VNAV minimums uses a glidepath that may be derived from:

A. A ground-based glideslope transmitter at the runway

B. Barometric VNAV or WAAS-generated vertical guidance

C. The localizer signal interpreted as a vertical reference

D. DME distance converted directly to a descent angle

21. During an approach, the pilot must cross-check the GPS distance to the runway against the altitude to ensure a stabilized descent. This practice helps detect:

A. A failure of the transponder altitude reporting function

B. An incorrectly loaded approach or a database sequencing error

C. A malfunction in the aircraft's pitot heat system

D. A discrepancy in the magnetic compass card calibration

22. When ATC issues "cross ABCDE at or above 4,000, cleared RNAV approach," the pilot must:

A. Cross ABCDE at 4,000 or higher, then continue the approach

B. Descend to the published minimums before reaching ABCDE

C. Maintain 4,000 throughout the entire approach to landing

D. Cross ABCDE at exactly 4,000 and hold for further clearance

23. A flight director command bar that remains centered while the pilot hand-flies indicates the aircraft is:

A. Deviating from the intended flight path significantly

B. In an unusual attitude requiring immediate recovery

C. Operating without any active flight director mode selected

D. Following the commanded pitch and roll guidance accurately

24. A pilot flying with a single GPS receiver loses the unit entirely in IMC on a direct RNAV route with no ground-based navaids tuned. The pilot should immediately:

A. Continue on the last known heading and hope to reacquire signal

B. Descend below the clouds to navigate by visual landmarks

C. Squawk 7600 and continue silently to the destination

D. Advise ATC and request vectors or a route using available aids

25. The "missed approach point" on an RNAV (GPS) approach is typically defined by:

A. A named waypoint coded in the GPS database for the procedure

B. A timed interval from the final approach fix in all cases

C. The point where the glideslope reaches decision height

D. Crossing the runway threshold at the touchdown zone

26. A pilot using autopilot in "NAV" mode coupled to GPS finds the aircraft fails to turn at a fly-by waypoint and overshoots. The most likely cause is:

A. A normal and expected fly-over waypoint behavior

B. Excessive groundspeed for the autopilot servo limits

C. A localizer signal overriding the GPS course guidance

D. The waypoint coded as fly-over, requiring a turn after crossing

27. When transitioning from the en route structure onto an RNAV STAR, the pilot should verify that the:

A. ADF is tuned to the destination's compass locator beacon

B. Arrival is correctly loaded and sequenced in the flight plan

C. VOR receivers are set to the en route airway frequencies

D. Transponder is squawking the VFR code of 1200

28. A pilot is cleared for an ILS approach but the aircraft's only operative navigation source is an IFR-approved GPS. The pilot should:

A. Fly the ILS using the GPS as a substitute for the localizer

B. Accept the ILS clearance and use GPS for vertical guidance

C. Continue the ILS, treating GPS course as equivalent precision

D. Advise ATC unable the ILS and request an RNAV or other approach

29. The primary benefit of an electronic flight bag (EFB) displaying an own-ship position on a geo-referenced approach chart is:

A. It replaces the requirement for any panel-mounted navigation

B. It provides certified primary navigation guidance for the approach

C. It enhances positional awareness during the approach procedure

D. It automatically flies the approach when coupled to the autopilot

30. A pilot flying a non-WAAS GPS approach to LNAV minimums must monitor RAIM and, if a RAIM annunciation occurs inside the FAF, should:

A. Execute the missed approach as the position may be unreliable

B. Continue to the MDA since the FAF was already crossed

C. Switch to the standby VOR receiver for lateral guidance

D. Disregard the alert because LNAV does not require RAIM

31. When an FMS-equipped aircraft is cleared to "descend via" a STAR, the pilot is expected to:

A. Descend immediately at maximum rate to the lowest altitude

B. Maintain the current altitude until the final approach fix

C. Request a separate clearance for each altitude on the arrival

D. Comply with all published lateral and vertical constraints on the STAR

32. A pilot observes the HSI course pointer and the GPS desired track disagree by several degrees on an RNAV leg. The most appropriate action is to:

A. Trust the HSI course pointer and disregard the GPS track

B. Verify the correct waypoint is active and the course is set properly

C. Continue without action since minor differences are normal

D. Disengage the GPS and revert to dead-reckoning navigation

33. The advantage of "radius-to-fix" (RF) legs on an RNP approach is that they allow:

A. Precisely flown curved paths around terrain or obstacles

B. Unlimited descent rates without altitude restrictions

C. Navigation without any onboard performance monitoring

D. The pilot to disregard the published lateral containment

34. A pilot flying an RNAV approach must ensure the GPS is in "approach mode" (e.g., LPV or LNAV active) before the FAF because:

A. Approach mode enables the tighter CDI sensitivity needed for the approach

B. The autopilot cannot function without approach mode engaged

C. Approach mode disables the moving map to reduce distractions

D. The transponder will not reply unless approach mode is active

35. When the clearance reads "maintain 7,000, cross BRAVO at and maintain 5,000," and BRAVO is 20 NM ahead, the pilot should plan to:

A. Descend immediately to 5,000 and disregard the BRAVO crossing

B. Maintain 7,000 until passing BRAVO, then descend to 5,000

C. Cross BRAVO at 7,000 and continue at that altitude beyond it

D. Begin descent so as to cross BRAVO at 5,000, then maintain it

36. A pilot using a GPS approach notices the database currency has expired. The aircraft may legally fly the approach only if:

A. The approach is flown entirely in visual conditions

B. The database information for that procedure is verified as current

C. The pilot loads the waypoints manually from memory

D. ATC grants a specific waiver for the expired database

37. An autopilot in "approach" mode armed for an ILS will capture the localizer first and then the glideslope; the glideslope should be intercepted:

A. Well above the glideslope from a steep descent profile

B. After descending below the published glideslope from beneath

C. At any altitude regardless of the glideslope intercept point

D. From below at the published intercept altitude, level

38. A pilot flying an RNAV route is given "cross the 30 DME fix at 10,000." Without DME, an IFR GPS may identify this fix by:

A. Computing the equivalent distance to the reference navaid

B. Estimating the position based on elapsed flight time

C. Tuning the ADF to the associated compass locator

D. Requesting the controller to call the fix crossing by radar

39. The "TO/FROM" logic on a GPS or RNAV course is best described as:

A. Identical to a VOR, flipping at every named waypoint

B. Dependent on the aircraft's magnetic heading at the time

C. Reversed compared to conventional VOR navigation

D. Always "TO" the active waypoint until it is sequenced

40. A pilot loses the glideslope on an ILS inside the FAF but retains the localizer. The safest action is to:

A. Continue descending on the last glideslope indication shown

B. Continue as a localizer-only approach to the LOC MDA if able

C. Increase the descent rate to reach the runway threshold faster

D. Immediately turn toward the missed approach holding fix

41. The benefit of "turn anticipation" in a GPS or FMS is that it:

A. Delays the turn until the aircraft passes over the waypoint

B. Eliminates the need to monitor the autopilot during turns

C. Begins the turn before the waypoint for a smooth course capture

D. Increases the bank angle beyond standard rate automatically

42. A pilot must verify the active leg and sequencing on the GPS before commencing an approach because an incorrect sequence could:

A. Cause the transponder to transmit the wrong altitude code

B. Increase the aircraft's fuel burn during the approach segment

C. Direct the aircraft along an unintended, unprotected path

D. Prevent the autopilot from holding the selected airspeed

43. A "course deviation indicator" on an RNAV approach in the final segment usually has a full-scale deflection representing:

A. A small lateral distance such as a fraction of a mile

B. Five degrees of angular deviation from the course

C. Ten nautical miles on either side of the course

D. The full width of the protected en route airway

44. When ATC clears a flight "via vectors to final, maintain 3,000 until established, cleared RNAV RWY 18," the pilot should:

A. Descend to the minimums immediately upon receiving the clearance

B. Turn directly to the runway threshold using the GPS display

C. Maintain 3,000 until established on a published segment, then descend

D. Begin the approach only after crossing the missed approach point

45. A pilot finds the GPS and the standby VOR/ILS indications conflict during an approach. With an IFR-approved GPS flying an RNAV procedure, the pilot should:

A. Average the two indications to derive the correct course

B. Always favor the VOR/ILS over the GPS information

C. Use the navigation source appropriate to the procedure being flown

D. Discontinue both and request radar vectors to the airport

46. An aircraft on autopilot in "heading" mode while being vectored will:

A. Navigate directly toward the next flight plan waypoint

B. Fly and hold the heading set in the heading bug

C. Capture the localizer automatically when it centers

D. Descend on the glidepath once the approach is loaded

47. A pilot encounters a "GPS INTEG" or integrity warning during the en route phase. The appropriate response is to:

A. Continue without concern as en route accuracy is not critical

B. Immediately execute a descent to the minimum en route altitude

C. Switch the GPS off to clear the warning and continue navigating

D. Cross-check position with other available navigation sources

48. The "expect" altitudes and routings on a STAR exist primarily to:

A. Help the pilot plan the descent and configure for the arrival

B. Replace the need for an ATC descent clearance entirely

C. Provide mandatory hard altitudes that require no clearance

D. Define the missed approach procedure for the destination

49. When a glass-cockpit aircraft suffers an Air Data Computer (ADC) failure, the affected indications typically include:

A. Airspeed, altitude, and vertical speed on the primary display

B. The magnetic heading and GPS course pointer only

C. Engine RPM and fuel flow on the multifunction display

D. The autopilot's roll servo and aileron trim function

50. A pilot flying an RNAV (GPS) approach with LP (Localizer Performance) minimums should understand that LP provides:

A. Vertical guidance equivalent to a full ILS glideslope

B. A barometric glidepath identical to LNAV/VNAV minimums

C. Course guidance only for circling maneuvers at the airport

D. Lateral guidance with angular sensitivity but no vertical guidance

51. A pilot is flying a STAR and the FMS shows a waypoint with a "250K" speed constraint. The pilot should:

A. Cross that waypoint at or below 250 knots as published

B. Maintain exactly 250 knots from departure to that waypoint

C. Disregard the constraint unless ATC restates it verbally

D. Increase to 250 knots only after passing the waypoint

52. During a missed approach on an RNAV procedure, the GPS should sequence automatically to the missed approach guidance when the pilot:

A. Crosses the final approach fix inbound on the approach

B. Reaches the decision altitude on the final segment

C. Activates the missed approach (e.g., presses the appropriate key) at the MAP

D. Begins the approach at the initial approach fix

53. A pilot encounters a discrepancy between the charted minimum altitude and the FMS-computed VNAV path altitude at a fix. The pilot must:

A. Always follow the FMS-computed path as it is more precise

B. Average the two altitudes to maintain a safe descent

C. Continue the descent and resolve the difference after landing

D. Honor the higher charted minimum altitude for obstacle clearance

54. The "active waypoint" on a GPS navigation display is the point:

A. The aircraft most recently departed from on the route

B. Toward which the aircraft is currently navigating

C. That marks the final destination of the entire flight

D. Where the missed approach holding pattern begins

55. A pilot flying an ILS notices the glideslope needle is centered but the aircraft is clearly too high on a visual cross-check near the runway. The pilot should suspect:

A. A normal indication requiring no further verification

B. A localizer back-course signal interfering with the display

C. A false glideslope lobe captured above the true glidepath

D. An air data computer failure affecting the glideslope

56. When ATC instructs "join the airway, resume own navigation" after radar vectors, the RNAV pilot should:

A. Continue on the vector heading until the destination

B. Navigate to intercept and track the specified airway

C. Proceed directly to the destination ignoring the airway

D. Request a new clearance before joining the airway

57. A pilot using autopilot during an approach must always be prepared to:

A. Allow the autopilot to complete the landing automatically

B. Disconnect and hand-fly if the autopilot misbehaves or at minimums

C. Rely solely on the flight director without monitoring instruments

D. Re-engage the autopilot repeatedly if it disconnects on final

58. A "fly-by" waypoint differs from a "fly-over" waypoint in that a fly-by waypoint:

A. Requires the aircraft to pass directly over the point before turning

B. Marks the missed approach point on every RNAV approach

C. Is used only during the en route phase of flight

D. Allows the turn to begin before reaching the waypoint for a smooth path

59. A pilot planning an RNAV approach as the only available procedure at the destination should, for legality, ensure the aircraft and crew are:

A. Equipped with a backup ADF in addition to the GPS

B. Authorized to fly only in visual meteorological conditions

C. Operating exclusively within radar coverage at all times

D. Approved and equipped for the specific RNAV procedure required

60. The principal reason to brief the missed approach procedure before beginning any instrument approach is that:

A. A missed approach may require immediate action with high workload

B. The missed approach is identical for every approach at an airport

C. ATC always issues new instructions before the missed approach

D. The missed approach point is the same as the final approach fix

+ Answer Key

1. C — If a WAAS receiver downgrades from LPV to LNAV inside the FAF, the vertical guidance is lost, so the pilot continues to the higher LNAV MDA flown laterally without a glidepath. The LPV minimums and glidepath are no longer valid. Continuing on stale glidepath data would forfeit obstacle protection.

2. A — A "RAIM not available" annunciation before the FAF means GPS integrity cannot be assured, so the pilot discontinues the approach and uses an alternate procedure or facility. Without integrity

monitoring, position errors could go undetected. The moving map is not a substitute for verified integrity.

3. B — "Direct" to a waypoint authorizes the RNAV system to navigate a great-circle track straight to PXT. No airway interception or vectors are required. The avionics compute the direct course and distance to the fix.

4. D — When the localizer being tracked is flagged, the autopilot appropriately reverts to a basic mode such as heading hold and stops tracking the invalid signal. It will not chase a failed signal. The pilot then reassesses and takes manual or alternate action.

5. D — A Terminal Arrival Area provides minimum altitudes and a structured transition from the en route environment into the RNAV approach, divided into sectors around the IAFs. It replaces feeder routes and procedure turns on many RNAV approaches. Each sector publishes a safe minimum altitude.

6. C — Loss of primary attitude on a PFD requires transitioning to the standby (backup) attitude indicator and supporting instruments. The standby instrument is independent of the failed display. The moving map and engine displays do not provide attitude reference.

7. C — An "UNABLE RNP" alert means the navigation system cannot meet the required navigation performance (containment) for the procedure. The aircraft can no longer guarantee it will stay within the protected path. The pilot must execute the missed approach or revert to another procedure.

8. B — An RNAV equipment suffix such as "/G" tells ATC the aircraft is equipped with an approved GPS for IFR navigation. This allows ATC to assign RNAV routes and direct clearances. The suffix communicates navigation capability for clearance planning.

9. C — With a clearance limit of ABCDE and an EFC time, a lost-comm pilot proceeds to ABCDE per the clearance and holds until the EFC time before continuing. The clearance limit and EFC govern the lost-comm timing. This keeps the aircraft predictable to ATC.

10. C — RNAV (GPS) lateral CDI scaling tightens progressively as the aircraft transitions from en route (wider) through terminal to the final approach segment (most sensitive). The increasing sensitivity supports precise tracking near the runway. The receiver changes scaling automatically by phase.

11. A — A suitable IFR GPS may generally substitute for an out-of-service ADF or DME to identify fixes and fly DME arcs on a conventional approach. This is permitted under AIM substitution guidance. It expands usability when ground aids are unavailable.

12. C — FMS VNAV coupled to the autopilot on an arrival flies a computed vertical profile that honors the published altitude constraints. It manages the descent so the aircraft meets each crossing restriction. This reduces workload and improves descent precision.

13. B — With a total electrical failure in IMC, the first priority is to maintain aircraft control using the available backup instruments. Aviating precedes communicating or troubleshooting. Establishing control prevents loss of control before addressing the failure.

14. B — An RNAV SID requires RNAV equipment meeting the procedure's navigation specification (e.g., RNAV 1). The aircraft must be approved for that performance level. Lacking the required capability prohibits flying the procedure.

15. C — A substantial difference between GPS groundspeed and indicated/true airspeed is normally explained by the wind component along the flight path. A headwind lowers groundspeed below airspeed; a tailwind raises it. This is expected, not a malfunction.

16. B — A fix noted "GPS or RADAR required" can be flown by a non-GPS aircraft if ATC provides radar identification of that fix. Radar substitutes for the GPS fix definition. Without GPS or radar, the fix cannot be reliably identified.

17. A — A hold-in-lieu-of-procedure-turn reverses course and allows the aircraft to lose altitude as needed to align with the final approach. It replaces a conventional procedure turn at the fix. The pilot flies one or more circuits to get established inbound.

18. A — "Cleared direct, resume own navigation" directs the RNAV system to sequence to and navigate toward the active flight plan waypoint. The pilot resumes RNAV guidance rather than holding a heading. The system computes the course to the active fix.

19. C — An armed altitude preselect captures and levels the aircraft at the preselected altitude during a climb or descent. It automates the level-off. This prevents an altitude overshoot when the target is reached.

20. B — LNAV/VNAV glidepath guidance may be derived from barometric VNAV or WAAS-generated vertical guidance. Both can produce the advisory or approved glidepath to the DA. Ground-based glideslopes and localizers are not involved in RNAV procedures.

21. B — Cross-checking GPS distance against altitude on the descent helps detect an incorrectly loaded approach or a database sequencing error. A mismatch reveals that the procedure or active leg may be wrong. The cross-check is a defense against navigation errors.

22. A — "Cross ABCDE at or above 4,000, cleared RNAV approach" requires crossing ABCDE at 4,000 or higher, then continuing the approach as charted. The "at or above" restriction sets a floor at the fix. Descending below before the fix would forfeit obstacle clearance.

23. D — A centered flight director command bar while hand-flying indicates the aircraft is accurately following the commanded pitch and roll guidance. The bars show the needed corrections, and centered bars mean no correction is needed. The pilot keeps the bars centered to fly the path.

24. D — Losing the only GPS in IMC with no ground navaids tuned requires advising ATC and requesting vectors or a route using available aids. ATC can provide radar navigation assistance. Continuing blindly or descending without coordination is unsafe.

25. A — The missed approach point on an RNAV (GPS) approach is normally defined by a named waypoint coded in the database for that procedure. The GPS sequences to it automatically. This replaces timing or glideslope-based MAP definitions.

26. D — Overshooting a waypoint the autopilot fails to turn at suggests the waypoint is coded as fly-over, requiring the turn to begin after crossing it. Fly-over waypoints produce a turn past the point rather than turn anticipation. Understanding the waypoint type explains the path flown.

27. B — Transitioning onto an RNAV STAR requires verifying the arrival is correctly loaded and sequenced in the flight plan. An incorrectly loaded arrival could route the aircraft improperly. Confirming the sequence against the chart prevents navigation errors.

28. D — With only an IFR GPS operative and no ILS receiver, the pilot must advise ATC unable the ILS and request an RNAV or other suitable approach. GPS cannot substitute for an ILS localizer and glideslope. Flying the ILS without the proper receiver is not authorized.

29. C — An EFB own-ship display on a geo-referenced chart enhances positional awareness during the approach. It is a supplemental aid, not certified primary navigation. The pilot still flies the approach using the panel-mounted navigation equipment.

30. A — A RAIM annunciation inside the FAF on a non-WAAS LNAV approach means the position may be unreliable, so the pilot executes the missed approach. Integrity can no longer be assured for the final segment. Continuing to the MDA on an unmonitored position is unsafe.

31. D — "Descend via" a STAR requires the pilot to comply with all published lateral and vertical constraints on the arrival. It is a clearance to fly the charted altitudes and speeds. The pilot manages the descent to meet every restriction.

32. B — A disagreement between the HSI course pointer and the GPS desired track should prompt the pilot to verify the correct waypoint is active and the course is set properly. The mismatch usually stems from an incorrect course or active leg. Confirming the setup resolves the discrepancy.

33. A — Radius-to-fix legs let RNP approaches follow precisely flown curved paths around terrain or obstacles. The defined radius guides the turn within tight containment. This enables procedures impossible with straight segments alone.

34. A — Approach mode must be active before the FAF because it enables the tighter CDI sensitivity needed for the approach. The scaling change is essential for precise final-segment tracking. Without it, the displayed guidance would be too coarse.

35. D — "Cross BRAVO at and maintain 5,000" requires planning the descent so as to cross BRAVO at 5,000, then maintain that altitude. The crossing restriction must be met at the fix. The pilot begins descent early enough to comply.

36. B — With an expired database, the approach may be flown only if the data for that specific procedure is verified as current against an official source. The waypoints and altitudes must match the current chart. Otherwise the procedure cannot legally be flown by GPS.

37. D — On an ILS, the glideslope should be intercepted from below at the published intercept altitude in level flight. Capturing from below prevents locking onto a false upper lobe. Level intercept at the charted altitude ensures the correct glidepath.

38. A — Without DME, an IFR GPS can identify a DME fix by computing the equivalent distance to the reference navaid. The GPS substitutes distance information for the missing DME. This allows the fix to be identified for the crossing restriction.

39. D — GPS/RNAV course logic is always "TO" the active waypoint until that waypoint is sequenced, unlike a VOR's TO/FROM flip at the station. The display points toward the active fix continuously. After sequencing, the next waypoint becomes the active "TO" point.

40. B — Losing the glideslope inside the FAF while retaining the localizer allows continuing as a localizer-only approach to the LOC MDA if able. The localizer still provides valid lateral guidance. Descending on a lost glideslope or diving for the runway would be unsafe.

41. C — Turn anticipation begins the turn before reaching a fly-by waypoint so the aircraft smoothly captures the next course. It avoids overshooting the leg. This produces a more efficient, stabilized track change.

42. C — An incorrect active leg or sequence could direct the aircraft along an unintended, unprotected path lacking obstacle clearance. Verifying sequencing before the approach guards against this. It is a critical pre-approach check.

43. A — On the final segment of an RNAV approach, full-scale CDI deflection represents a small lateral distance, often a fraction of a mile, providing high sensitivity. This is much tighter than en route scaling. The fine scale supports precise final tracking.

44. C — "Maintain 3,000 until established, cleared RNAV RWY 18" requires staying at 3,000 until established on a published segment, then descending as charted. Descending early or turning direct forfeits obstacle protection. The altitude is tied to lateral establishment.

45. C — When GPS and VOR/ILS conflict, the pilot uses the navigation source appropriate to the procedure being flown — GPS for an RNAV procedure. Mixing or averaging sources is incorrect. Matching the source to the procedure ensures proper guidance.

46. B — In heading mode, the autopilot flies and holds the heading set in the heading bug, as used during vectors. It does not navigate to waypoints or capture the localizer on its own. The pilot adjusts the bug to comply with ATC headings.

47. D — A GPS integrity warning en route should prompt the pilot to cross-check position with other available navigation sources. The warning means the GPS position may be unreliable. Verifying against VOR/DME or radar maintains safe navigation.

48. A — "Expect" altitudes and routings on a STAR help the pilot plan the descent and configure for the arrival. They are planning information, not mandatory hard altitudes without clearance. The pilot descends only when ATC issues the actual clearance.

49. A — An Air Data Computer failure typically affects airspeed, altitude, and vertical speed on the primary display, since the ADC derives these from pitot-static inputs. Heading and GPS course come from other systems. Recognizing the affected parameters guides the use of backups.

50. D — LP (Localizer Performance) minimums provide lateral guidance with angular sensitivity similar to a localizer but no vertical guidance. It is a non-precision line of minima used where terrain prevents LPV vertical guidance. The pilot descends by step-down to the MDA.

51. A — A "250K" speed constraint at a waypoint directs the pilot to cross that waypoint at or below 250 knots as published. The FMS honors the constraint in its speed profile. Meeting it maintains the planned arrival sequencing.

52. C — On an RNAV procedure, the GPS sequences to the missed approach guidance when the pilot activates the missed approach (such as pressing the appropriate key) at the MAP. It does not auto-sequence past the MAP without activation. This prevents premature sequencing during the final segment.

53. D — When the charted minimum altitude is higher than the FMS-computed VNAV path altitude at a fix, the pilot must honor the higher charted minimum for obstacle clearance. The published minimum is the controlling altitude. The VNAV path must not lead the aircraft below it.

54. B — The active waypoint is the point toward which the aircraft is currently navigating. The GPS provides guidance to that fix until it sequences to the next. Identifying the active waypoint confirms where the system is taking the aircraft.

55. C — A centered glideslope while clearly too high near the runway suggests a false glideslope lobe captured above the true glidepath. False lobes occur at higher angles above the real path. Cross-checking altitude versus distance reveals the error before descending incorrectly.

56. B — "Join the airway, resume own navigation" directs the RNAV pilot to navigate to intercept and track the specified airway. The pilot leaves the vector heading to capture the airway. The system then provides guidance along the route.

57. B — A pilot using the autopilot on approach must always be prepared to disconnect and hand-fly if the autopilot misbehaves or at minimums. Continuous monitoring is required. The pilot remains the final authority and ready to take manual control.

58. D — A fly-by waypoint allows the turn to begin before reaching the waypoint so the aircraft smoothly intercepts the next leg. A fly-over waypoint, by contrast, must be crossed before turning. The distinction affects how the path is flown.

59. D — To legally fly an RNAV approach as the only procedure, the aircraft and crew must be approved and equipped for that specific RNAV procedure. The required navigation capability and authorization must be in place. Lacking them would make the approach unavailable.

60. A — Briefing the missed approach beforehand matters because a missed approach may require immediate action during a high-workload moment. Knowing the climb, heading, and altitude in advance reduces errors. Preparation supports a safe, prompt go-around.