PRACTICE EXAM 32 SIMULATION

1. A pilot arrives at a holding fix on a heading within the direct entry sector. What is the correct entry procedure?

A. Cross the fix and turn to follow the outbound holding course directly

B. Turn to parallel the holding course on the non-holding side, then return

C. Turn 30 degrees toward the holding side and fly the teardrop pattern

D. Continue straight ahead for two minutes before reversing the course

2. In a standard holding pattern, what is the timing of the inbound leg at or below 14,000 feet MSL?

A. Two minutes inbound to ensure adequate spacing within the pattern

B. Thirty seconds inbound to keep the aircraft within protected airspace

C. Ninety seconds inbound matching the standard outbound leg duration

D. One minute inbound, with the outbound leg adjusted to achieve it

3. A pilot in a holding pattern determines that a left crosswind on the inbound leg requires a left drift correction to track the inbound course. In which direction must the drift correction be applied on the outbound leg to stay within protected airspace?

A. No correction is applied outbound, because the inbound leg self-corrects the drift

B. The correction is applied in the same left direction as the inbound leg correction

C. The correction is removed entirely until the aircraft reaches the abeam point

D. The correction is applied into the wind, the same crab direction used inbound

4. A pilot must intercept a VOR radial of 090 while flying a heading of 360. After tuning and identifying the station, what is the first step?

A. Turn immediately to 090 and wait for the course needle to center slowly

B. Set the OBS to the desired radial and determine the needle deflection

C. Fly directly toward the station until the needle centers automatically

D. Reverse course to 180 and approach the radial from the opposite side

5. What determines the appropriate intercept angle when intercepting a course?

A. The published minimum altitude for the airway segment being flown

B. The aircraft's gross weight and the current center of gravity location

C. The barometric altimeter setting in use at the destination airport

D. The distance from the course and the desired rate of closure to it

6. A pilot tracking a VOR radial inbound notices the course needle drifting left. What does this indicate and require?

A. The aircraft has drifted right of course and should turn left to correct

B. The aircraft is left of course and should turn further left to recapture

C. The VOR signal has failed and the needle should be disregarded entirely

D. The aircraft has passed the station and should reverse course immediately

7. When established in a holding pattern, when does the pilot begin timing the outbound leg?

A. When crossing the holding fix at the start of the inbound leg

B. When the aircraft reaches the maximum holding airspeed for the altitude

C. When the bank into the outbound turn is first initiated at the fix

D. Abeam the holding fix, or wings-level outbound, whichever is later

8. A pilot must perform a parallel holding entry. What is the correct sequence of actions?

A. Cross the fix, turn toward the holding side, and intercept the inbound course

B. Cross the fix, turn to parallel the outbound course on the holding side, then turn back

C. Cross the fix and turn 30 degrees into the pattern for the teardrop entry

D. Continue past the fix for one minute, then turn directly to the inbound course

9. What is the purpose of the "abeam" point in a holding pattern?

A. It marks where outbound timing begins when abeam the holding fix

B. It indicates the location to begin the descent to the approach altitude

C. It defines the point where the missed approach climb must commence

D. It establishes where the maximum holding airspeed restriction begins

10. A pilot flying a DME arc must maintain a constant 15 DME from the station. What technique accomplishes this?

A. Holding a single constant heading throughout the entire length of the arc

B. Flying directly toward the station while monitoring the DME readout

C. Making small heading changes to keep the DME reading constant on the arc

D. Centering the course deviation indicator on the inbound final approach radial

11. What is the relationship between the segments of a standard instrument approach procedure?

A. The segments are flown in any order based on the pilot's discretion

B. The missed approach segment always precedes the initial approach segment

C. Initial, intermediate, final, and missed approach segments in sequence

D. Only the final and missed approach segments are required to be flown

12. A pilot crosses the initial approach fix. What does the initial approach segment accomplish?

A. It transitions the aircraft from the enroute structure toward the intermediate segment

B. It defines the final descent path aligned with the runway centerline

C. It establishes the missed approach holding pattern after a go-around

D. It marks the decision altitude for the precision approach to the runway

13. What is the function of the intermediate approach segment?

A. It positions and aligns the aircraft for the final approach segment

B. It provides the steepest descent of the entire approach procedure

C. It defines the missed approach climb gradient to the holding fix

D. It marks the point where circling minimums first become applicable

14. A pilot must determine the holding side of a pattern. The holding side is on which side of the inbound course?

A. The side opposite the direction of the turns specified in the holding instruction

B. Always the left side regardless of the direction of the holding turns

C. The same side as the direction of the turns in the holding pattern

D. Always the right side regardless of the holding instruction issued

15. When intercepting a localizer for an ILS, why is a shallow intercept angle preferred near the final approach fix?

A. A steep angle is required to capture the glideslope signal more quickly

B. A shallow angle prevents overshooting the narrow localizer course

C. The intercept angle has no effect on capturing the localizer course

D. A steeper angle reduces the time spent on the final approach segment

16. A pilot in a holding pattern must not exceed the protected airspace. What primarily keeps the aircraft within it?

A. Maintaining the maximum cruise airspeed throughout the holding pattern

B. Complying with the maximum holding airspeed and proper timing

C. Flying the outbound leg for exactly two minutes on every circuit

D. Disregarding wind correction to keep the pattern symmetrical in shape

17. What does the final approach fix mark on a nonprecision approach?

A. The point where the missed approach climb must be initiated immediately

B. The location where circling minimums first apply to the approach

C. The point where the aircraft intercepts the glideslope signal inbound

D. The point where the final descent toward the MDA begins inbound

18. A pilot tracking a course outbound from a VOR sees the needle deflect right. What correction is needed?

A. Turn right toward the needle to intercept and recapture the course

B. Turn left away from the needle since outbound tracking reverses sensing

C. Continue straight ahead since outbound needle deflection is normal

D. Reverse course immediately because the station has been passed

19. What is the purpose of a "lead radial" depicted on an approach chart with a DME arc?

A. It provides advance notice to begin the turn onto the final approach course

B. It marks the maximum distance the aircraft may fly past the approach fix

C. It defines the decision altitude for the precision approach to the runway

D. It indicates the missed approach holding pattern direction at the fix

20. A pilot must determine the entry to a hold when arriving within the teardrop sector. What is the correct entry?

A. Cross the fix and turn to parallel the outbound course on the non-holding side

B. Cross the fix and turn into the holding side at about a 30-degree offset

C. Cross the fix and turn directly to the inbound holding course immediately

D. Continue straight through the fix for two minutes before any course reversal

21. What is the standard rate of turn used in a holding pattern?

A. A turn of six degrees per second to expedite the pattern circuits

B. A turn using exactly forty-five degrees of bank in every turn

C. A turn completed in thirty seconds regardless of the airspeed flown

D. A standard-rate turn of three degrees per second, or 30 degrees bank if less

22. A pilot intercepting a VOR radial wants a 30-degree intercept. If tracking inbound on the 090 radial and currently south of it, what heading establishes this intercept?

A. A heading of about 060 to close on the radial from the south side

B. A heading of about 120 to parallel the radial without intercepting it

C. A heading of about 270 to fly directly away from the radial entirely

D. A heading of about 180 to reverse course before the interception begins

23. What does the missed approach segment of an approach procedure provide?

A. The final descent path aligned precisely with the runway centerline

B. The transition from the enroute structure toward the intermediate segment

C. A safe route and climb from the missed approach point to a holding fix

D. The point where circling minimums first become applicable on approach

24. A pilot holding with a one-minute inbound leg flies an outbound leg in calm wind. How long should the outbound leg be?

A. Two minutes to ensure the inbound leg achieves the required one minute

B. Approximately one minute, adjusted so the inbound leg equals one minute

C. Thirty seconds to keep the pattern compact within protected airspace

D. Ninety seconds regardless of the resulting inbound leg duration achieved

25. What is the primary purpose of a procedure turn in an approach?

A. To lose excess altitude rapidly before reaching the final approach fix

B. To establish two-way radio communication with the approach controller

C. To reverse course and align the aircraft inbound on the final approach

D. To verify the navigation equipment functions before the final descent

26. A pilot tracking inbound to a VOR must apply wind correction. After establishing a correction angle that holds the needle centered, what should the pilot do?

A. Remove all correction once the needle centers and fly the raw heading

B. Double the correction angle to ensure the needle stays centered inbound

C. Apply correction only when the needle begins to deflect off center again

D. Maintain the established correction angle that keeps the needle centered

27. What does the term "protected airspace" mean in the context of holding?

A. The airspace where the maximum holding airspeed may be exceeded safely

B. The area reserved exclusively for military holding operations only

C. The zone where two holding patterns may overlap without conflict

D. The obstacle-clearance area around the holding pattern that must be respected

28. A pilot flying a DME arc must transition to the final approach course. What does the lead radial help the pilot do?

A. Identify the maximum altitude permitted on the arc before the turn

B. Determine the decision altitude for the final approach to the runway

C. Begin the turn to intercept the final course before reaching it

D. Mark the missed approach point if the runway is not in sight

29. What is the effect of a tailwind on the inbound leg of a holding pattern?

A. The inbound leg is completed faster, requiring a longer outbound leg

B. The inbound leg takes longer, requiring a shorter outbound leg to adjust

C. The tailwind has no effect on the timing of the inbound holding leg

D. The aircraft will depart the protected airspace on the inbound leg

30. A pilot must intercept and track a localizer inbound. Once the localizer needle begins to move toward center, what action is appropriate?

A. Maintain the full intercept heading until the needle reaches full deflection

B. Begin a turn to the inbound course to roll out as the needle centers

C. Increase the intercept angle to capture the localizer more aggressively

D. Reverse course since needle movement indicates the station was passed

31. What does the holding pattern's "outbound leg" accomplish?

A. It positions the aircraft to turn inbound and recross the holding fix

B. It defines the final descent path to the runway during the approach

C. It marks the location where the missed approach climb must commence

D. It establishes the decision altitude reference for the holding pattern

32. A pilot arrives at a holding fix exactly on the inbound course heading. Which entry is most appropriate?

A. A parallel entry on the non-holding side followed by a return turn

B. A teardrop entry with a 30-degree offset into the holding side

C. A direct entry, turning to fly the outbound leg in the holding direction

D. A continued straight-ahead path for two minutes before any turn

33. What is the purpose of timing on a nonprecision approach without a DME-defined missed approach point?

A. To determine the maximum holding airspeed at the missed approach point

B. To replace the requirement to track the final approach course inbound

C. To identify when the aircraft reaches the missed approach point from the FAF

D. To establish the climb gradient required for the missed approach segment

34. A pilot must determine the recommended maximum bank angle for a holding pattern turn. What is the limit?

A. Forty-five degrees of bank to keep the pattern compact and within limits

B. Sixty degrees of bank to expedite the turns at higher holding airspeeds

C. Fifteen degrees of bank regardless of the aircraft type or airspeed flown

D. The lesser of a standard-rate turn or 30 degrees of bank in the pattern

35. What does intercepting a course at too steep an angle near the fix risk?

A. Capturing the course too slowly and never reaching the centerline

B. Overshooting the course due to the high rate of closure to it

C. Losing the navigation signal entirely during the intercept maneuver

D. Exceeding the maximum holding airspeed during the intercept turn

36. A pilot must hold at an intersection defined by two VOR radials. What is required to identify the holding fix?

A. A single VOR receiver tuned to the primary station for the radial

B. The localizer and glideslope signals from a nearby ILS approach

C. A DME readout from any station within the service volume area

D. Two navigation receivers, or one with DME, to identify the intersection

37. What is the relationship between the outbound and inbound legs when correcting for wind in a hold?

A. The outbound and inbound legs always use identical timing in any wind

B. The outbound leg uses the same drift correction as the inbound leg

C. The outbound leg is adjusted in time and the turn drift is corrected

D. The inbound leg is shortened to compensate for any crosswind component

38. A pilot tracking a radial notices that small heading corrections are no longer centering the needle as the aircraft nears the station. Why does this occur?

A. The radials converge near the station, increasing the needle sensitivity

B. The VOR signal weakens and fails completely near the station overhead

C. The receiver requires retuning to a different frequency near the station

D. The aircraft has entered the glideslope capture zone near the runway

39. What is the purpose of the "holding fix" in a holding pattern?

A. It marks the runway threshold for the final landing approach segment

B. It defines the decision altitude for the precision approach to the runway

C. It establishes the maximum holding airspeed for the pattern circuits

D. It is the reference point about which the holding pattern is flown

40. A pilot must determine which way to turn when established in a standard holding pattern. Which direction are the turns?

A. Left turns in a standard holding pattern at all altitudes and airspeeds

B. Right turns in a standard holding pattern as the default configuration

C. Either direction depending on the pilot's discretion at the holding fix

D. Alternating left and right turns on successive circuits of the pattern

41. What does a "DME arc" approach segment require the pilot to maintain?

A. A constant heading toward the station throughout the entire arc segment

B. A centered course deviation indicator on the final approach radial

C. A constant distance from the station by making small heading changes

D. A constant rate of descent along the curved path to the runway

42. A pilot intercepting a course must choose between a 20-degree and a 45-degree intercept. When is the larger angle more appropriate?

A. When the aircraft is already established very close to the course centerline

B. When the navigation signal is weak and requires a slower interception

C. When the maximum holding airspeed must be maintained during the turn

D. When the aircraft is far from the course and a faster closure is desired

43. What is the function of the "final approach segment" in an instrument approach?

A. It transitions the aircraft from the enroute structure to the approach

B. It positions and aligns the aircraft for the intermediate segment ahead

C. It guides the aircraft to a point from which a landing can be made

D. It provides the climb route from the missed approach point to a hold

44. A pilot holding must adjust for a headwind on the outbound leg. What is the effect of the headwind outbound?

A. The outbound leg covers more distance, requiring a shorter outbound time

B. The outbound leg covers less distance, possibly requiring more outbound time

C. The headwind has no effect on the outbound leg of the holding pattern

D. The aircraft will exit protected airspace on the outbound leg of the hold

45. What does intercepting and tracking a course require a pilot to compensate for?

A. The maximum holding airspeed permitted at the current altitude flown

B. The barometric altimeter setting in use at the destination airport

C. Wind drift, by establishing a heading correction to hold the course

D. The decision altitude published for the precision approach procedure

46. A pilot crossing the holding fix inbound completes one circuit. What marks the completion of a standard holding circuit?

A. Returning to the holding fix after the inbound leg following the outbound turn

B. Reaching the abeam point on the outbound leg of the holding pattern

C. Completing the outbound turn at the end of the outbound holding leg

D. Establishing the maximum holding airspeed for the altitude being flown

47. What is the purpose of the published holding pattern depicted on an approach chart?

A. It defines the final approach descent path to the runway threshold

B. It marks the decision altitude reference for the precision approach

C. It specifies the direction and shape of the hold to be flown at the fix

D. It establishes the climb gradient required for the missed approach

48. A pilot must intercept a localizer back course inbound. Without reverse-sensing equipment, how should the pilot interpret the needle?

A. The needle senses normally exactly as on the front course inbound approach

B. The needle provides no usable course information on the back course at all

C. The needle displays only glideslope information on the back course descent

D. The needle senses in reverse, requiring corrections opposite the deflection

49. What does the "intermediate fix" mark on an instrument approach procedure?

A. The point where the missed approach climb must be initiated immediately

B. The runway threshold location for the final landing flare maneuver

C. The decision altitude reference for the precision approach to the runway

D. The beginning of the intermediate segment between initial and final approach

50. A pilot flying a holding pattern with a one-minute inbound leg encounters a strong headwind inbound. What adjustment is needed?

A. Shorten the outbound leg time to compensate for the slower inbound leg

B. Lengthen the outbound leg time so the inbound leg achieves one minute

C. Maintain the same outbound time regardless of the headwind inbound

D. Exit the holding pattern since the headwind prevents proper timing

51. What is the primary reference for determining holding pattern entry?

A. The aircraft's current groundspeed at the time of crossing the fix

B. The barometric altimeter setting at the nearest reporting station

C. The maximum holding airspeed permitted at the holding altitude

D. The aircraft heading relative to the holding course at the fix

52. A pilot tracking a VOR course must keep the needle centered. What does a centered needle with a TO indication mean?

A. The aircraft is on the selected course tracking toward the station

B. The aircraft has passed the station and is now tracking away from it

C. The VOR signal is unreliable and the indication should be disregarded

D. The aircraft is positioned exactly over the VOR station ground point

53. What does the term "no-wind" outbound timing assume in a holding pattern?

A. The outbound leg should always be flown for exactly two minutes

B. The outbound leg equals the inbound leg time in the absence of wind

C. The outbound leg should be shortened to thirty seconds for spacing

D. The outbound timing has no relationship to the inbound leg at all

54. A pilot intercepting a final approach course from a DME arc must time the turn correctly. What happens if the turn is started too late?

A. The aircraft captures the course early and overshoots toward the station

B. The aircraft never reaches the final approach course at the proper point

C. The glideslope captures before the localizer course is intercepted

D. The aircraft overshoots the final approach course and must correct back

55. What is the purpose of identifying the holding direction in a holding clearance?

A. To establish the maximum holding airspeed permitted at the altitude

B. To define the decision altitude for the approach following the hold

C. To specify which side of the holding course the pattern is flown on

D. To determine the climb gradient required for the missed approach

56. A pilot must determine outbound leg timing when holding above 14,000 feet MSL. What is the standard inbound leg time at those altitudes?

A. One minute inbound, the same as at lower altitudes in the pattern

B. Thirty seconds inbound to keep the aircraft within protected airspace

C. One and one-half minutes inbound at altitudes above 14,000 feet MSL

D. Two minutes inbound regardless of the altitude being flown in the hold

57. What does tracking a course "inbound" versus "outbound" change about VOR needle sensing?

A. The needle sensing reverses completely when tracking a course outbound

B. With the OBS set to the course, the needle indicates correctly either way

C. The needle provides no usable guidance when tracking a course outbound

D. The needle becomes twice as sensitive when tracking outbound from a station

58. A pilot flying a holding pattern must begin the inbound turn at the correct point. When is the inbound turn started?

A. At the completion of the outbound leg timing in the holding pattern

B. Immediately upon crossing the holding fix at the start of the entry

C. At the abeam point regardless of the outbound leg timing achieved

D. Upon reaching the maximum holding airspeed for the current altitude

59. What is the purpose of the "course deviation indicator" during course tracking?

A. It shows the aircraft's lateral position relative to the selected course

B. It indicates the vertical descent rate during the final approach segment

C. It displays the distance remaining to the tuned navigation station

D. It confirms the maximum holding airspeed for the current altitude

60. A pilot must intercept a radial and track it to a station. After the needle centers on the intercept, what is the next action?

A. Continue the full intercept heading until the needle deflects to the other side

B. Turn to the course heading and apply wind correction to keep the needle centered

C. Reverse course since a centered needle indicates the station was passed

D. Maintain the intercept angle indefinitely until reaching the station overhead

Answer Key

1. A. Direct entry — Cross the fix and turn to follow the outbound holding course in the holding direction.

2. D. Inbound timing — At or below 14,000 ft, the inbound leg is one minute; the outbound leg is adjusted to achieve it.

3. D. Outbound wind correction direction — The drift correction is always applied into the wind throughout the pattern, the same crab direction used on the inbound leg. Because the wind acts in the same direction on both legs, the pilot crabs into it on both the inbound and outbound segments to keep the pattern aligned and stay within protected airspace. (The "triple the inbound drift" guidance is a separate magnitude refinement for the outbound timing rollout, not a change in direction.) Option A wrongly assumes self-correction, option B mislabels the crab as "left" rather than into-the-wind, and option C abandons the correction entirely.

4. B. Course intercept — After tuning/identifying, set the OBS to the desired radial and read the needle deflection.

5. D. Intercept angle — Determined by the distance from the course and the desired rate of closure.

6. A. Inbound tracking — A left-drifting needle means the aircraft drifted right of course; turn left to recapture.

7. D. Outbound timing start — Begin timing abeam the fix, or wings-level outbound, whichever occurs later.

8. B. Parallel entry — Cross the fix, parallel the outbound course on the holding side, then turn back to intercept inbound.

9. A. Abeam point — Where outbound timing begins when abeam the holding fix.

10. C. DME arc technique — Small heading changes keep the DME distance constant.

11. C. Approach segments — Initial, intermediate, final, and missed approach in sequence.

12. A. Initial approach segment — Transitions the aircraft from enroute toward the intermediate segment.

13. A. Intermediate segment — Positions and aligns the aircraft for the final approach segment.

14. C. Holding side — On the same side as the direction of the holding turns.

15. B. Shallow localizer intercept — Prevents overshooting the narrow localizer course.

16. B. Protected airspace — Maintained by complying with maximum holding airspeed and proper timing.

17. D. Final approach fix — Where the final descent toward the MDA begins inbound.

18. A. Outbound tracking — With the OBS set to the outbound course, the needle senses normally; turn toward the needle to recapture.

19. A. Lead radial — Provides advance notice to begin the turn onto the final approach course (from a DME arc).

20. B. Teardrop entry — Cross the fix and turn into the holding side at about a 30-degree offset.

21. D. Holding turn rate — Standard-rate (3°/sec) or 30° bank, whichever requires less bank.

22. A. 30-degree intercept — Tracking inbound on the 090 radial from south, a heading of ~060 closes at 30°.

23. C. Missed approach segment — Provides a safe route and climb from the MAP to a holding fix.

24. B. Outbound timing (calm) — Approximately one minute, adjusted so the inbound leg equals one minute.

25. C. Procedure turn — Reverses course to align the aircraft inbound on the final approach.

26. D. Wind correction inbound — Maintain the established correction angle that keeps the needle centered.

27. D. Protected airspace — The obstacle-clearance area around the holding pattern that must be respected.

28. C. Lead radial use — Begin the turn to intercept the final course before reaching it.

29. A. Tailwind inbound — The inbound leg completes faster, requiring a longer outbound leg.

30. B. Localizer capture — Begin the turn to the inbound course to roll out as the needle centers.

31. A. Outbound leg — Positions the aircraft to turn inbound and recross the holding fix.

32. C. Direct entry on course — Arriving on the inbound course heading, a direct entry (turn outbound in the holding direction) is appropriate.

33. C. Timing on approach — Identifies when the aircraft reaches the MAP from the FAF (no DME).

34. D. Holding bank limit — The lesser of a standard-rate turn or 30° of bank.

35. B. Steep intercept near fix — Risks overshooting the course due to the high rate of closure.

36. D. Intersection fix — Requires two receivers, or one with DME, to identify the intersection.

37. C. Wind correction in hold — The outbound leg time is adjusted and the turn drift is corrected.

38. A. Radial convergence — Radials converge near the station, increasing needle sensitivity.

39. D. Holding fix — The reference point about which the holding pattern is flown.

40. B. Standard hold — Right turns are the default standard configuration.

41. C. DME arc — Maintain a constant distance from the station via small heading changes.

42. D. Larger intercept angle — Appropriate when far from the course and faster closure is desired.

43. C. Final approach segment — Guides the aircraft to a point from which a landing can be made.

44. B. Headwind outbound — The outbound leg covers less distance, possibly requiring more outbound time.

45. C. Course tracking — Requires compensating for wind drift with a heading correction.

46. A. Holding circuit — Completed by returning to the fix after the inbound leg following the outbound turn.

47. C. Published hold — Specifies the direction and shape of the hold to be flown at the fix.

48. D. Back course sensing — Without correction, the needle senses in reverse; correct opposite the deflection.

49. D. Intermediate fix — Marks the beginning of the intermediate segment between initial and final approach.

50. B. Headwind inbound — Lengthen the outbound leg time so the inbound leg achieves one minute.

51. D. Entry determination — Based on the aircraft heading relative to the holding course at the fix.

52. A. Centered TO — The aircraft is on the selected course tracking toward the station.

53. B. No-wind timing — The outbound leg equals the inbound leg time absent wind.

54. D. Late DME-arc turn — Starting the turn too late overshoots the final course, requiring correction back.

55. C. Holding direction — Specifies which side of the holding course the pattern is flown on.

56. C. High-altitude inbound timing — Above 14,000 ft, the inbound leg is one and one-half minutes.

57. B. Inbound vs. outbound sensing — With the OBS set to the course being flown, the needle indicates correctly either way.

58. A. Inbound turn start — At the completion of the outbound leg timing.

59. A. CDI purpose — Shows the aircraft's lateral position relative to the selected course.

60. B. Post-intercept tracking — Turn to the course heading and apply wind correction to keep the needle centered.