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Continuing Education Course #417  
Airport Engineering  
Part II - Runway & Taxiway Design

1. In airport terminology, RDC stands for...

- a. Runway Designation Criteria
- b. Road Design Code
- c. Runway Delineation Color
- d. Runway Design Code
- e. Runways Don't Curve

2. What is the flight visibility minimum of a runway with an RVR of 2400 ft?

- a. Greater than 1 mile
- b. Lower than 1/4 mile
- c. Lower than 1 mile but not lower than 3/4 mile
- d. Lower than 1/2 mile but not lower than 1/4 mile
- e. Lower than 3/4 mile but not lower than 1/2 mile

3. Which of the following declared distances are not generally specified?

- a. TODA
- b. LDA
- c. MODA
- d. TORA
- e. ASDA

4. True or false: a runway classified as Non-Precision Approach (NPA) can support IFR operations in any visibility condition.

- a. False
- b. True

5. Regarding the RSA, which statement is false?

- a. Projecting obstacles within the RSA must be less than 3 inches above grade.
- b. The RSA does not include runway shoulders.
- c. NAVAIDs within the RSA must be mounted on frangible connections.
- d. The RSA must be clear of debris.
- e. Blast pads, if present, are located within the RSA.

6. The RPZ begins how far from the end of the runway structural pavement?

- a. 250 ft
- b. 300 ft
- c. 200 m

- d. 61 ft
  - e. 200 ft
7. Which statement is true about runway width?
- a. All commercial runways must be wide enough to land Air Force One in case of a national emergency.
  - b. Runway width depends on both ADG and TDG.
  - c. A runway must be three times as wide as the connecting taxiway.
  - d. Constructing a displaced threshold requires the runway width to change.
  - e. The number of parallel stripes at a runway threshold corresponds to its width.
8. A displaced threshold ...?
- a. Is always located at the very end of the runway.
  - b. Is recommended by the FAA in most cases.
  - c. Reduces the available length of a runway for landings.
  - d. Can normally be constructed without changes to lighting, markings, or hold lines.
  - e. Prevents an aircraft from landing at the beginning of the runway.
9. The approach surface slope for a runway where the approach end is expected to accommodate instrument approaches having visibility minimums less than 3/4 mile is:
- a. 34:1
  - b. 20:1
  - c. 15:1
  - d. 40:1
  - e. 44:1
10. Which federal regulation dictates the safe, efficient use, and preservation of navigable airspace?
- a. 14 CFR Part 67
  - b. 14 CFR Part 777
  - c. 14 CFR Part 7460
  - d. 14 CFR Part 27
  - e. 14 CFR Part 77
11. The maximum longitudinal gradient for AAC A&B runway pavement is... ?
- a. 2.00%
  - b. 2.5%
  - c. 1.0%
  - d. 3.00%
  - e. 1.5%
12. True or false: the transverse pavement slope range for a S-1 // A&B approach category runway is 1.5% - 5.0%?
- a. True
  - b. False
13. Cockpit to main gear (CMG) refers to... ?
- a. The height from the runway surface to the cockpit
  - b. Horizontal distance from the cockpit to the rear landing gear.
  - c. The length of the aisle between the cockpit and the forward lavatory.
  - d. The width of the rear landing gear spacing.
  - e. The time it takes for a taxiing aircraft to travel the length of the aircraft.
14. Nose gear steering angle should be limited to how many degrees when possible?

- a. 45
- b. 35
- c. 50
- d. 90
- e. 15

15. What is the proper taxiway edge safety margin for a TDG 5 aircraft?

- a. 5 ft
- b. 15 ft
- c. 25 ft
- d. 10 ft
- e. 40 ft

16. Which is the correct taxiway OFA for ADG II aircraft ?

- a. 131ft
- b. 79 ft
- c. 115 ft
- d. 162 ft
- e. 186 ft

17. A taxiway fillet incorporates three radii: the fillet, centerline, and outer. What are these dimensions in feet, respectively, for a TDG 1A design aircraft on a 90 degree turn?

- a. 0,50,62
- b. 0,25,62
- c. 0,25,37
- d. 12.5,21,21
- e. 53,0,21

18. High speed runway exits serve what main purpose?

- a. Increase airport capacity and efficiency
- b. Permit aircraft to arrive at the gate ahead of schedule
- c. Improve pilots' taxiing ability
- d. Reduce runway and taxiway construction costs
- e. Create more time for food trucks to restock aircraft kitchens

19. What is the maximum longitudinal grade change for a taxiway?

- a. 2.0%
- b. 1.0%
- c. 0.40%
- d. 3.0%
- e. 1.5%

20. What is the proper transverse TSA grade range (beyond the taxiway shoulders) for an AAC A&B ?

- a. 1.0-2.0%
- b. 1.5-5.0%
- c. 1.0-1.5%
- d. 1.5-3.0%
- e. 1.0-3.0%

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