

Lecture 26: November 22

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Question 1

Which of the following is not the requirement of any object implementing consensus?

- A. Agreement.
- B. Validity.
- C. Wait-Freedom.
- D. Deadlock-Freedom.

Solution: D

Question 2

What is the consensus number of Read and Write Objects?

- A. 0
- B. 1
- C. 2
- D. 3

Solution: B

Question 3

Which of the following objects consensus number is 2?

- A. Queue
- B. Stack
- C. Test and Set
- D. Check and Set

Solution: A B C

Question 4

Which of the following is correct about the consensus number for RMW object?

- A. Infinite
- B. At most 2
- C. At most 3

D. At least 2

Solution: B D

Question 5

What is the name of the following statement in consensus implementation: Two correct processes cannot decide different values.

- A. Agreement.
- B. Validity.
- C. Wait-Freedom.
- D. Deadlock-Freedom.

Solution: A

Question 6

What is the name of the following statement in consensus implementation: The value decided by a correct process must be one of the proposed values.

- A. Agreement.
- B. Validity.
- C. Wait-Freedom.
- D. Deadlock-Freedom.

Solution: B

Question 7

What is the name of the following statement in consensus implementation: Each correct process decides the value after a finite number of steps. This should be true without any assumption on relative speeds of processes.

- A. Agreement.
- B. Validity.
- C. Wait-Freedom.
- D. Deadlock-Freedom.

Solution: C

Question 8

What is the consensus number of 2-Write-1-Read-Object?

- A. 0
- B. 1
- C. 2

D. 3

Solution: C