

TOPIC

Computers – Section IV – Question 5

QUESTION

A hard disk drive with 3.5 cm diameter platter turns at 1500 RPM. The average latency for the drive-in seconds nearly is

- (A) 0.006
- (B) 0.02
- (C) 0.04
- (D) 0.08

HINT

The average latency of a hard drive is defined as the time it takes for a hard drive to rotate one half of a revolution.

SOLUTION

The average latency of a hard drive is defined as the time it takes for a hard drive to rotate one half of a revolution. Therefore, if the hard drive makes 1500 revolutions per minute, how much time does it take it to make one-half of a revolution? Yes, 1500 revolutions per minute mean 25 revolutions per second. So the time for a hard drive to rotate *one half* of a revolution is $1/50$ seconds=0.02 seconds.

ANSWER

(B)

CONTRIBUTOR

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