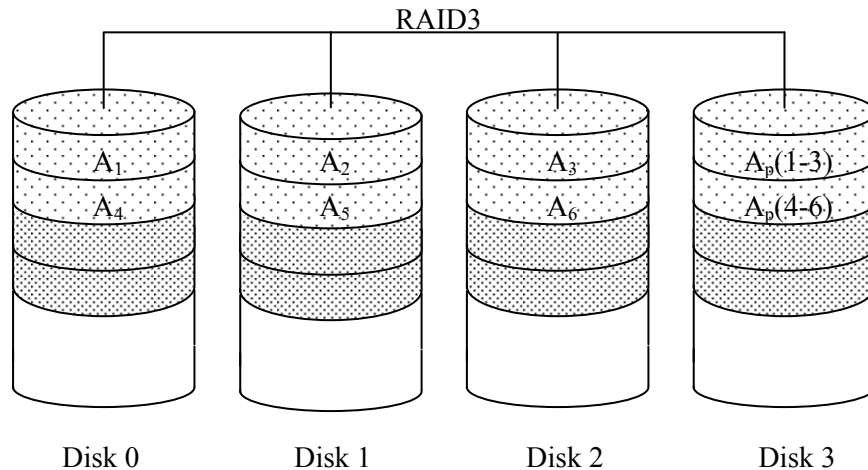


Q23. In the RAID3 system shown below, three disks (Disks 0 through 2) for byte-striped data and one dedicated parity disk (Disk 3) are used as one volume. Parity byte A_p is generated by calculating the exclusive OR (XOR) of three bytes in Disks 0 through 2. For example, $A_p(1-3)$ is calculated as follows:

$$A_p(1-3) = A_1 \text{ XOR } A_2 \text{ XOR } A_3$$

In the case of drive failure, data recovery can be accomplished by using the information recorded on the remaining three error-free drives. Which of the following operations should be executed for this data recovery?



- a) AND
- b) OR
- c) XNOR (Exclusive NOR)
- d) XOR (Exclusive OR)