* How is MTTF calculated?

Mean time to failure-Basically the average time it takes this equipment to fail. If you have 1,000,000 discs, and they all fail around the millionth hour, which ends up averaging to 1,000,001 hours, then that equipments MTTF is 1,000,001 hours.

* What happens to availability as MTTR tends towards 0?

Mean time to repair

Availability approaches 100%

* Calculate the 3-digit Hamming hex code for the byte 0x03

Page 422 error: Parity bits 2 and 10 are incorrect. Should be Parity bits 2 and 8.

0000 0011

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| p1 | p2 | d1 | p4 | d2 | d3 | d4 | p8 | d5 | d6 | d7 | d8 |
| 0 |  | 0 |  | 0 | 0 | 0 |  | 0 | 0 | 1 | 1 |
|  | 0 | 0 |  | 0 | 0 | 0 |  | 0 | 0 | 1 | 1 |
|  |  | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 | 1 | 1 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |

* The 3-digit Hamming Hex Code, 0xc99, contains a flipped bit. Identify which bit is flipped and what the original, 2-hex-digit value was.

Original

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| p1 | p2 | d1 | p4 | d2 | d3 | d4 | p8 | d5 | d6 | d7 | d8 |
| 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |

Recalculated:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| p1 | p2 | d1 | p4 | d2 | d3 | d4 | p8 | d5 | d6 | d7 | d8 |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 |

The 11th bit is flipped (7th bit of the original byte).

Original byte = 0100 1011

Original 2 digit hex = 0x4b