

Q 1 Web Server

$$MTBF = 8751.23 \text{ hours}$$

$$MTTR = 8.77 \text{ hours}$$

Application Server

$$MTBF = 8716.08 \text{ hours}$$

$$MTTR = 43.92 \text{ hours}$$

Database Server

$$MTBF = 8672.40 \text{ hours}$$

$$MTTR = 87.60 \text{ hours}$$

$$\text{Availability } A = \frac{MTBF}{MTBF + MTTR} \quad \text{गैर可用ता 1 घंटा = 365 दिन}$$

$$A_{\text{web}} = \frac{8751.23}{8751.23 + 8.77} = 0.999 = 99.9 \%$$

$$A_{\text{App}} = \frac{8716.08}{8716.08 + 43.92} = 0.995 = 99.5 \%$$

$$A_{\text{Data}} = \frac{8672.40}{8672.40 + 87.60} = 0.99 = 99 \%$$

$$A_{\text{web}} * A_{\text{App}} * A_{\text{Data}} = 99.4$$

$$\therefore \text{Availability} = 99.4 \approx 8619.84 \text{ Hours/year} \quad \#$$