Q1. Which one of the following is the correct definition of ***equipment monitoring***?

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|  | a. | Managing the day to day work using equipment maintenance procedures and work management systems. |
|  | b. | Managing the reliability of mechanical, electrical, process, and instrumentation equipment. |
|  | c. | Understanding the impact that equipment has on other equipment and the overall plant. |
|  | d. | Using diagnostic tools such as vibration to monitor the health of plant equipment. |

Q2. For a system of two parallel CFR components with component MTTF = 900 hours and common-mode CFR of 0.00001, find the system reliability at 1100 hours. Please round your answer to 3 decimals.

Q3. Consider a system with two parallel and identical components with CFR of 0.000353. Assume a common-mode CFR of 0.00001 in addition to the components’ independent rates. Find the MTTF. Round your answer to the nearest integer.

Q4. A system has two identical components in parallel with CFR of λ. A system reliability of Rs (1000) =0.95 is desired.  What should the component MTTF be? Please round your answer to the nearest integer.

Q5. Consider a system with two parallel and identical components with CFR of 0.000353. Assume a common-mode CFR of 0.00001 in addition to the components’ independent rates. Find RS(1000). Please round your answer to 3 decimals.