

Task 1. Choose the correct option to complete these sentences.

- 1 I think the bearings **could/must** have broken.
- 2 I'm certain the damage **might/must** have been caused by metal fatigue.
- 3 No, lightning **mightn't/couldn't** have caused the damage.
- 4 The fire **could have/must have been** caused by a faulty wire.
- 5 A virus **must have/must have been** infected your computer.
- 6 I'm sorry, the exhaust pipe **can/couldn't** have been fitted properly.

Task 2. Read sentences (1-6) about engineering disasters. With sentences A-F make up speculations about the causes using the correct word from the list provided.

1. The construction team used materials that were not strong enough for the structure's weight.
2. The engineers skipped some tests to save time and costs during the project.
3. The builders ignored warning signs of foundation weakness.
4. There was a lack of communication between the engineering and construction teams.
5. The safety checks were not conducted as frequently as they should have been.
6. Budget cuts led to the use of lower-quality materials than initially planned.

PREVENT RAISE HELP CATCH DO CONSIDER

- a) Maybe stronger materials should _____ to prevent issues with the structure's stability.
- b) More thorough testing might _____ to ensure the project met all safety standards.
- c) It's possible that warning signs about the foundation's condition should _____ more concern.

- d) Better communication might _____ avoid certain problems during the project.
- e) More frequent safety checks should _____ any potential issues before they escalated.
- f) Sticking with the original materials might _____ some of the later problems.

Task 3. Complete the sentences using the third conditional.

1. If the design team _____ TEST the materials more thoroughly, they would _____ PREVENT the structure from collapsing.
2. If the engineers _____ GIVE more time to assess risks, they could _____ IDENTIFY potential weaknesses in the foundation.
3. If investigators had had access to better technology, they would _____ ABLE to uncover hidden flaws that contributed to the disaster.
4. If the construction team had followed the initial safety guidelines, the disaster would never _____ OCCURRE.
5. If communication between departments _____ BE clearer, they could _____ ADDRESS critical design flaws before they became catastrophic.

Task 4. Make comparison using the words in the brackets.

1. The new engine model is _____ (much efficient) than the older version, allowing it to run longer on the same amount of fuel.
2. The updated hydraulic system operates _____ (slightly fast) than the previous model, increasing productivity without significant changes in design.
3. The revised model has _____ (much great) cooling capabilities than its older counterpart, helping it operate efficiently in hotter conditions.
4. The latest turbine is _____ (far powerful) than its predecessor, reaching speeds that significantly increase energy output.
5. The new design offers a _____ (little comprehensive) safety features, ensuring better protection for operators.
6. The upgraded gearbox is _____ (twice durable) the previous design, which reduces the need for frequent maintenance.

Task 5. Fill in the gaps with the correct word.

- Corrosion
- Wear
- Metal fatigue
- Impact
- Thermal shock
- Tension
- Fracture

1. _____ can occur when a material is rapidly exposed to extreme temperature changes, causing it to crack or weaken.
2. Over time, parts of the machinery experience _____, which reduces their effectiveness and requires regular maintenance.
3. High levels of _____ in cables or beams can lead to structural stress, sometimes resulting in deformation or failure.
4. Exposure to moisture and chemicals leads to _____ of metal parts, weakening them over time.
5. A small _____ in the material might go unnoticed initially, but it can grow and lead to complete failure under stress.
6. _____ happens when repeated stress weakens a metal over time, even if each individual load is within safe limits.
7. Sudden _____ forces can damage materials and cause unexpected breaks or dents, especially if they're already under stress.

Task 6. Read the findings from the report and decide whether the recommendations provided below are true or wrong.

Findings.

1. The investigation revealed significant design flaws in the structure, which compromised its integrity under stress conditions.
2. Analysis showed that the materials used exhibited signs of metal fatigue, leading to unexpected failures during operation.
3. Regular maintenance was not performed as required, resulting in the deterioration of key components over time.
4. The machinery underwent insufficient testing before deployment, failing to identify potential weaknesses in real-world conditions.
5. Operator error contributed to the disaster, highlighting a lack of training and understanding of the machinery's limitations.
6. Extreme weather conditions exacerbated existing vulnerabilities, leading to a failure that could have been mitigated with better planning.

Recommendations.

1. _____ **Engineering designs should incorporate rigorous testing** to identify and address potential weaknesses before deployment to ensure safety.
2. _____ **Regular maintenance should be mandatory** for all machinery to prevent unexpected failures and extend their operational lifespan.
3. _____ **Quality control should not be emphasized** during the material selection process, as any material can be used without affecting safety.
4. _____ **Operators should receive comprehensive training** to minimize human error and improve their understanding of machinery limitations.
5. _____ **Testing for environmental factors should not be a priority**, as machinery can be designed to perform optimally under any conditions without specific adaptations.
6. _____ **Documentation of operational procedures should not be required**, since operators can rely on their instincts and experience without formal guidelines.
7. _____ **Regular inspections should be part of a proactive maintenance strategy** to catch issues before they lead to failures.