

Task 1. Match the words with their correct definitions.

1. bomb	a) A sudden and violent event that can cause destruction
2. thermal shock	b) A force that causes a sudden change in motion or structure
3. corrosion	c) The gradual degradation of material due to friction or stress.
4. wear	d) The breaking of a material into pieces
5. impact	e) The reaction of a material to sudden temperature changes
6. buckling	f) The weakening of a material due to repeated stress cycles
7. fracture	g) The chemical reaction that leads to the deterioration of metals
8. metal fatigue	h) The bending or deformation of a structure under load
9. tension	i) The force exerted on a material that can lead to stretching or pulling

Task 2. Complete the sentences using the appropriate vocabulary words from the list.

1. Experts also considered the possibility of ** _____ **, where the bridge components bend under excessive load.
2. There is also the potential for ** _____ **, where cracks develop in the material due to excessive stress.
3. Another factor could be ** _____ ** from heavy traffic loads, which can gradually degrade materials.
4. Furthermore, ** _____ t** from collisions or heavy impacts can create critical weaknesses in the structure.
5. In some cases, ** _____ ** can occur when a material is subjected to repeated stress, causing it to lose its strength over time.
6. One possible cause was ** _____ **, which can occur when a material is subjected to extreme temperature changes.
7. Finally, engineers noted that ** _____ ** in the design or construction of the bridge could have played a role in its collapse.
8. Additionally, ** _____ ** in the steel girders may have weakened the structure over time.

Task 3. Read the text and fill in the gaps with appropriate words.

On August 1, 2007, the I-35W bridge over the Mississippi River collapsed, resulting in tragic loss of life and injuries. Investigations into the disaster revealed several potential causes that experts speculated could have contributed to the failure of the structure.

One possible cause was 1) _____, which can occur when a material is subjected to extreme temperature changes. This can lead to unexpected stresses in the bridge components. Additionally, 2) _____ in the steel girders may have weakened the structure over time, making it more susceptible to failure.

Another factor could be 3) _____ from heavy traffic loads, which can gradually degrade materials. Experts also considered the possibility of 4) _____, where the bridge components bend under excessive load, leading to structural failure.

In some cases, 5) _____ can occur when a material is subjected to repeated stress, causing it to lose its strength over time. Furthermore, 6) _____ from collisions or heavy impacts can create critical weaknesses in the structure.

Finally, engineers noted that 7) _____ in the design or construction of the bridge could have played a role in its collapse, as well as the potential for 8) _____, where cracks develop in the material due to excessive stress.

Task 4. Answer the questions.

1. What is one possible cause of the I-35W bridge collapse?

- A) Material expansion
- B) Thermal fatigue
- C) Water damage

2. What issue in the steel girders may have weakened the bridge over time?

- A) Corrosion
- B) Vibration
- C) Overheating

3. What is a potential cause related to the bridge's exposure to heavy traffic loads?

- A) Fatigue from traffic
- B) Overheating due to friction
- C) Vibrations from nearby construction

4. **What is the term used when a structure bends under excessive load, leading to failure?**

- A) Cracking
- B) Buckling
- C) Expansion

5. **What occurs when a material loses strength after being subjected to repeated stress?**

- A) Material fatigue
- B) Rusting
- C) Expansion and contraction

6. **What might create critical weaknesses in a structure due to heavy impacts or collisions?**

- A) Expansion
- B) Fatigue cracking
- C) Impact damage

7. **What role could design or construction flaws have played in the bridge collapse?**

- A) Miscommunication
- B) Structural defects
- C) Climate conditions

8. **What is a possible effect of excessive stress on materials, leading to cracks?**

- A) Fatigue cracking
- B) Water absorption
- C) Erosion

Task 5. Label each sentence as Possible (P), Improbable (I), or Certain (C).

1. The construction materials **might not have** been strong enough.
2. There **must have** been a design flaw that contributed to the collapse.
3. The bridge **can't have** received proper maintenance.
4. The collapse **could have** occurred because of an earthquake.
5. The collapse **might have** been caused by poor construction.

Task 6. Rewrite the following sentences using the appropriate modal verbs (could, might, must, can't) to express speculations.

1. The bridge collapsed because it was old.

→ _____

2. There was no inspection done last year.

→ _____

3. The heavy traffic did not affect the bridge's stability.

→ _____

4. The engineers found a crack in the foundation.

→ _____

5. The storm caused the bridge to weaken.

→ _____