8D Examination Questions

What to do: You have 60 minutes to complete all questions and you are allowed to use the 8D book. Encircle the correct answer only. If you think you made a mistake, cross out the original incorrect answer and encircle the new answer you believe is correct. Those questions that you have unclearly encircled or marked shall be graded as incorrect. Discussion between students is not allowed!
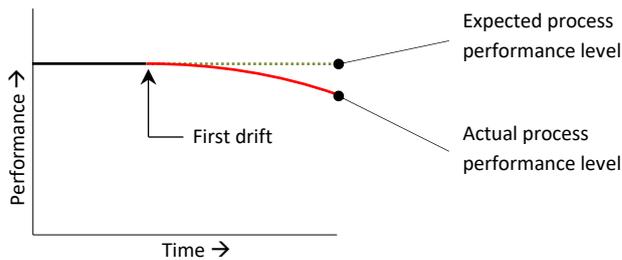
Name student   : _____

Date of exam   : _____

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1. **The 8D problem solving method is primarily used to address the following type of problems:**

   a. For resolving both special cause and common cause problems
   b. Common cause problems only
   c. Special cause problems only
   d. Neither special or common cause problems

2. **In the figure below, which form of special cause is depicted?**

   a. Sudden change
   b. Never been there
   c. Gradual change
   d. Intermitted change

3. **What is the main purpose of step D6?**

   a. Implementing the PCAs and verify their effectiveness to step D2
   b. Implementing the PCAs and validate their effectiveness to step D5
   c. Implementing the PCAs and verify their effectiveness to step D4
   d. Implementing the PCAs and verify their effectiveness to step D5
   e. Implementing the PCAs and validate their effectiveness to step D4
   f. Implementing the PCAs and validate their effectiveness to step D2

4. **What is the main purpose of step D5?**

    a. Choose the PCAs and verify their effectiveness to step D2
    b. Choose the PCAs and verify their effectiveness to step D6
    c. Choose the PCAs and validate their effectiveness to step D4
    d. Choose the PCAs and validate their effectiveness to step D6
    e. **Choose the PCAs and verify their effectiveness to step D4**
    f. Choose the PCAs and validate their effectiveness to step D2

5. **What is the difference between the ERA and the ICA?**

    a. The ERA is based on the problem description from step D2, and the ICA are based on the symptom
    b. Both the ICA and the ERA are based on the problem description from D2
    c. **The ICA is based on the problem description from step D2, and the ERA are based on the symptom**
    d. Both the ERA and ICA are based on the symptom

6. **What is the difference between validation and verification?**

    a. Validation is checking based on a set of requirements if the right steps are taken, verification whether these steps give the desired result
    b. Verification is checking if the employee has done the right things, validation if the employee delivered the right result
    c. **Verification is checking based on a set of requirements if the right steps are taken, validation whether these steps give the desired result**
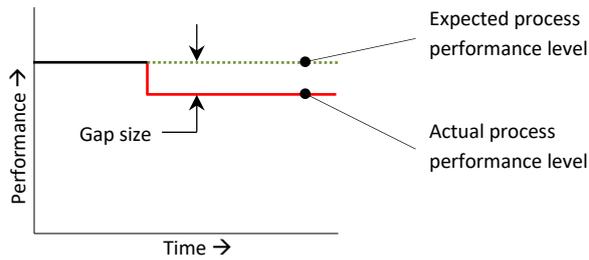   d. Verification and validation are two different words that mean the same, namely whether things are done correct

7. **Which of the following two statements is correct?**

    I. The 8D method is applied to problems whereby a multi-disciplinary approach is required and when the solution of the problem is unknown

    II. The 8D method is applied when the complexity of the problem is too big for one person or department alone to solve it.

    a. Only statement I is true
    b. **Statement I and II are correct**
    c. Both statements are false
    d. Only statement II is true

8. **Interim Containment Actions (ICA) serve the purpose of:**

    a. Restoring the output of the process as quickly as possible
    b. Buying time for the 8D team in order for them to focus on solving the problem
    c. Mapping the magnitude of the problem
    d. **All of the above answers are correct**

9. In the figure below, which form of special cause is depicted?

Performance → / Time → / Gap size / Expected process performance level / Actual process performance level

    a. Sudden change
    b. Never been there
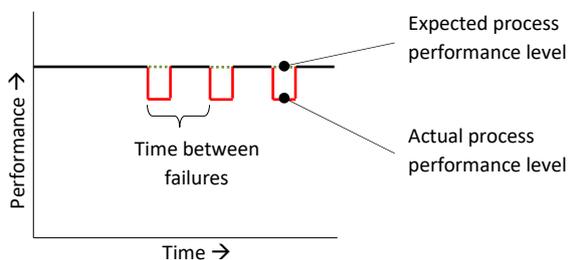   c. Gradual change
    d. Intermitted change

10. In which 8D step will you validate the selected PCAs, and to what will these be validated against?

    a. At step D4, and against the problem statement (D2)
    b. At step D5, and against the Root Cause Analysis from D4
    c. At step D6, and against the Root Cause Analysis from D4
    d. At step D4, and against the Root Cause Analysis from D4
    e. At step D6, and against the problem statement (D2)
    f. At step D5, and against the problem statement (D2)

11. In which 8D step will you verify the selected PCAs, and to what will these be verified against?

    a. At step D4, and against the problem statement (D2)
    b. At step D5, and against the Root Cause Analysis from D4
    c. At step D6, and against the Root Cause Analysis from D4
    d. At step D4, and against the Root Cause Analysis from D4
    e. At step D6, and against the problem statement (D2)
    f. At step D5, and against the problem statement (D2)

12. In the figure below, which form of special cause is depicted?

Performance → / Time → / Time between failures / Expected process performance level / Actual process performance level

    a. Sudden change
    b. Never been there
    c. Gradual change
    d. Intermitted change

13. Who determines if the 8D investigation is executed properly and ready for closure?

    a. The Champion, because he is the owner of the problem
    b. The 8D team leader, as he is leading the 8D investigation
    c. The 8D team itself, because they are perfectly capable to make such a decision
    d. The boss of the company

14. During Interim Containment Actions (ICA), sorted products are uniquely marked for the purpose of:

    a. Offering these products to customers at a reduced price
    b. To prevent that good and bad product get mixed
    c. To indicate that these products are sorted and whether they are conforming or non-conforming to the specifications set.
    d. All of the above answers are correct

15. Which of the following two statements is correct?

    I. Within the 8D method, the steps D4, D5 and D6 split an Occurrence pat hand an Escape path because it is very likely that both have a different root cause

    II. Occurrence is about where in the process the problem occurred, Escape is about where in the process the problem should have been detected

    a. Only statement I is true
    b. Statement I and II are correct
    c. Both statements are false
    d. Only statement II is true

16. The 8D report as drafted by the 8D team serves the purpose of:

    a. A means of communication between the 8D team and its stakeholders, including the (internal) customer and the Champion
    b. Is a reflection of the 8D investigation, supported by factual data and evidence
    c. Serves as a reference when in the future the same or similar problems occur
    d. All of the above answers are correct

17. What is the difference between Occurrence and Escape in step D4?

    a. Occurrence focusses on the creation of the problem, Escape on why the operator did not pay (more) attention
    b. Escape focusses on the non-detection of the problem, Occurrence on how the problem could occur in the process
    c. Occurrence focusses on why the operator created the problem, Escape why the system did not detect the problem
    d. Escape focusses on why the operator did not detect the problem, Occurrence why the operator created the problem

18. **What is the key purpose of step D8?**

   a. To thank the 8D team for their contribution in the investigation of the problem and to let the individual team members know that they can resume their normal work again

   b. To let the 8D team know that all the work is done and that their services are no longer required

   c. To celebrate the successful completion of solving the problem, for example with coffee and cake

   d. To check that the 8D team has completed all actions, that all the applicable data and evidence is properly archived before celebrating that the problem is solved at the root

19. **Why is the role of a Champion important in the 8D method?**

   a. This person determines who will be part of the 8D team

   b. This person is a manager that oversees the 8D team and the progression

   c. This person is the problem owner, and is responsible for allocating the required resources to get the problem solved

   d. This person helps guiding the 8D team in what needs to be done
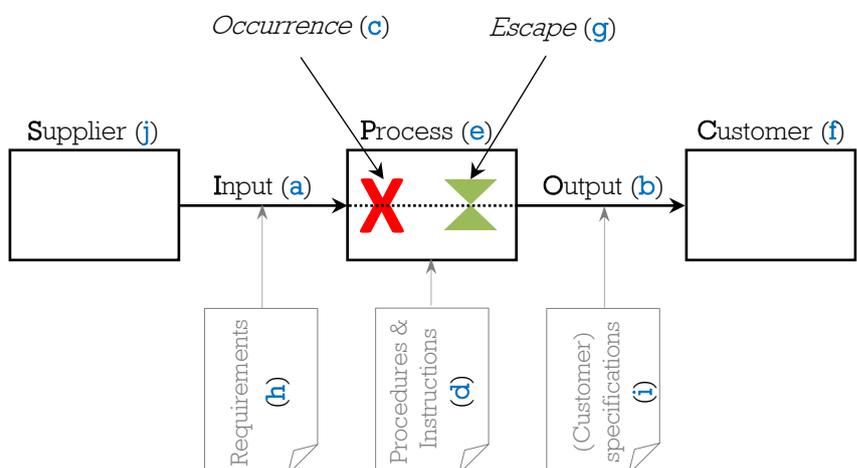
20. **What is a permanent corrective action?**

   a. A measure that corrects the output of a process

   b. A measure that improves the process

   c. A measure that removes the root cause(s) of a problem

   d. A measure that removes the root cause(s) of the symptom

21. **What is the difference between active and passive validation?**

   a. With active validation, you implement the PCA and you wait and see if it works. With passive validation you will test in a safe environment if the PCA solved the problem

   b. With active validation, you observe the process to see if the PCA is effective. With active validation, you just continue with your regular work or socialize with your colleagues.

   c. There is no difference, as both validate the PCA.

   d. With active validation, you will test if the PCA solves the problem before you implement it. With passive validation, you implement the PCA and wait if it solved the problem.

22. **Complete the figure below by writing the correct answers on the line (you may reference with an "a" or "b" as well)**

   a. Input
   b. Output
   c. Occurrence
   d. Procedures & instructions
   e. Process
   f. Customer
   g. Escape
   h. Requirements
   i. (Customer) specifications
   j. Supplier

   Occurrence (c)   *Escape* (g)

   Supplier (j)   Process (e)   Customer (f)

   Input (a)   **X** ▼▲   Output (b)

   Requirements (h)   Procedures & Instructions (d)   (Customer) specifications (i)

23. **Why is the ICA active until step D6, and sometimes even up to step D7?**

    a. When the ICA is implemented, the 8D team needs to verify between each transition to the next 8D step if the ICA is still effective in protecting the (internal) customer from non-conforming products.

    b. The ICA is the interim solution for the symptom, until you have implemented and validated the PCA.

    c. Because this is the only step that guards the process while the investigation takes place, until you have implemented and validated the PCA

    d. All the above answers are correct

24. **Which of the following two statements is correct?**

    I. Problem usually have only one root cause, but always two investigational directions being the Occurrence and Escape path

    II. A properly executed 8D investigation will prevent re-occurrence of the problem by removing the root causes of both the Occurrence and escape

    a. Only statement I is true

    b. Statement I and II are correct

    c. Both statements are false

    d. Only statement II is true

25. **Complete the table below by putting each level of securing the process as listed below from "a" to "h" in the right order from low to high.**

    a. Poka Yoké (error proofing)

    b. Warning

    c. Built in Quality / Jidoka

    d. Detection

    e. Design change

    f. Training / instructing

    g. Inspection

    h. Repair / rework

Degree	Type
↑	**B – Warning**
	F – Training / instructing
	G – Inspection
	H – Repair / Rework
	D – Detection
	E – Design change
	A – Poka Yoké (error proofing)
↓	**C – Built in quality / Jidoka**