**MFCA CASE STUDY - 1**

1. What does Canon manufacture?
   1. Grass cutter
   2. Pressure pumps
   3. Camera equipment
   4. Ball bearings
2. Was Canon able to use MFCA to improve its production process?
   1. Yes
   2. No
3. Which od the following statements holds true?
   1. Canon did not use MFCA
   2. Canon introduced MFCA unsuccessfully
   3. Canon introduced MFCA in collaboration with a supplier
   4. All of the above
4. Which Canon products did we learn about in this case study?
   1. Lens for broadcast camera
   2. Camera batteries
   3. Lens for single-lens reflex camera
   4. None of the above
5. What is the major material waste generated in lens manufacturing?
   1. Steel
   2. Aluminium
   3. Plastic
   4. Glass
6. What is the focus of conventional production management?
   1. Number of machines
   2. Size of factory
   3. Number of workers
   4. Number of final products
7. According to MFCA, how much is the pressed material waste?
   1. 25%
   2. 35%
   3. 30%
   4. None of the above
8. What is the focus of Material Flow Cost Accounting or MFCA?
   1. Personnel idle time
   2. Machine breakdowns
   3. Security lapses
   4. Material loss
9. How much is the cut-out material loss when manufacturing lens for broadcast cameras?
   1. 20%
   2. 45%
   3. 50%
   4. None of the above
10. Did Canon include the glass material supplier while conducting the MFCA analysis?
    1. Yes
    2. No
11. Which of the following method was suggested to reduce material loss in the broadcast lens manufacturing process?
    1. Switching to cut-glass
    2. Switching to pressed glass lenses
    3. Using moulded lenses
    4. None of the above
12. How much reduction of material loss from the shaving process was achieved by switching to near-shaping?
    1. 10%
    2. 80%
    3. 98%
    4. 0%
13. What was the amount of reduction of energy required by the glass supplier?
    1. 88%
    2. 85%
    3. 27%
    4. 39%
14. Which of the following was recorded as added benefits of conducting MFCA analysis at the glass supplier company?
    1. Increased cost competitiveness
    2. Reduction of working hours
    3. Reduction of energy consumption
    4. All of the above
15. Which of the following were key benefits recorded at the Canon facility?
    1. Sludge volume stayed constant
    2. Sludge volume reduced by 50%
    3. Abrasive powder reduced by 50%
    4. All of the above
16. Sharing of material loss information between Canon and the glass material supplier was instrumental in reduction of waste. True or false?
    1. True
    2. False
17. Which of the following does Nitto Denko corporation manufacture?
    1. Adhesive tapes for electronics
    2. Coated films
    3. Cameras
    4. All of the above
18. Which product from Nitto Denko does the case study focus on?
    1. Adhesive tapes for electronics
    2. Coated films
    3. Adhesives
    4. None of the above
19. The adhesive tapes consists of three layers. State whether true or false.
    1. True
    2. False
20. Which two processes during manufacturing generate material loss?
    1. Coating & heating process
    2. Welding process
    3. Hammering
    4. Cutting process
21. Which of the following constitute the waste generated from the coating and heat process?
    1. Part of substrate
    2. Separators
    3. Solvent
    4. All of the above
22. The solvent used in the coating and heating process is separated, deodorized, collected and reused. State whether true or false.
    1. True
    2. False
23. By what percentage did Nitto Denko reduce material waste by implementing MFCA?
    1. 12%
    2. 9%
    3. 10%
    4. None of the above
24. Did Nitto Denko use the results from the MFCA analysis to assess future capital investments?
    1. Yes
    2. No
25. What was the percentage of positive products manufactured in the financial year 2012?
    1. 93%
    2. 98%
    3. 87%
    4. 85%
26. MFCA checks which process should be improved to show problems and measures against them. State whether true or false.
    1. True
    2. False
27. How many Japanese companies have been positively affected by Nitto Denko’s example?
    1. 210
    2. 300
    3. 450
    4. 100
28. MFCA helps point to the difference between the amount of material going into a process compared to the material output. State whether true or false.
    1. True
    2. False
29. For MFCA to work it is important that ONLY management must undergo orientation. State whether true or false.
    1. True
    2. False
30. Can MFCA be applied to various industries and along multiple entities through supply chains?
    1. Yes
    2. No

For the above questions, we have designed two formats which are as follows:

Type 1: Multiple Choice Questions or MCQs

* The question will have four possible answers to choose from
* There maybe just one, multiple or no correct answers for these questions

**Sample MCQ:**

**Q1:** Tell us which of the following is a benefit of good inventory management?

* Maintain optimum inventory levels (correct)
* Save time and energy (correct)
* Decrease efficiency and productivity (incorrect)
* Improve accuracy of the accuracy of inventory orders (correct)

**Q1:** What is the full form of DOL in manufacturing?

* Double On Time (incorrect)
* Date On Tag (incorrect)
* Direct On Line (correct)
* None of the above (incorrect)

**Sample True or False:**

**Q1:** Two bin system in manufacturing leads to over stocking of raw material. True or false?

* True
* False