**ENVIRONMENTAL MANAGEMENT**

1. Environmental management is about controlling the environment. State whether true or false.
   1. True
   2. False
   3. Toxic waste
   4. Green house gases
   5. Depletion of natural resources
   6. All of the above
2. Using convention source of energy is causing accelerated global warming. State whether true or false.
   1. True
   2. False
3. What is one of the main energy related problems plaguing countries in Asia?
   1. Abundance of energy
   2. Cheap renewable energy
   3. Frequent power outages
   4. None of the above
4. How energy ca be saved for lighting by switching to LED bulbs from incandescent bulbs?
   1. 10%
   2. 99%
   3. 80%
   4. 33%
5. According to the European commission, what is the energy savings potential of the transport sector?
   1. 19%
   2. 26%
   3. 89%
   4. None of the above
6. Energy prices are directly linked to the rise and fall of fuel prices like petrol, diesel and Autogas. State whether true or false.
   1. True
   2. False
7. Which of the following is a great way to stabilize the price of their energy?
   1. Relying only on fossil fuels
   2. Discarding all machinery
   3. Diversifying sources of energy
   4. None of the above
8. Why are small businesses not keen on adopting energy efficient measures?
   1. Poor long term planning
   2. Lack of financial and human resources
   3. Lack of awareness
   4. All of the above
9. Saving energy helps in reducing operating costs and increasing energy security of an SME. State whether true or false.
   1. True
   2. False
10. Which of the following are advantages of saving energy?
    1. Improved equipment reliability
    2. Improved environmental safety
    3. Increased dependence on fossil fuels
    4. All of the above
11. What should be the first step during the implementation of an energy efficiency prgramme?
    1. Benchmark consumption
    2. Record load profile
    3. Collect data
    4. None of the above
12. The final step of any energy efficiency plan should be to consider all possible improvement options. State whether true or false.
    1. True
    2. False
13. Weekly energy consumption and cost data should be collected for each type of energy source. State whether true or false.
    1. True
    2. False
14. Which additional details should also be collected to correctly assess electricity bills?
    1. Peak loads
    2. Power factor
    3. Hydraulic loads
    4. All of the above
15. A site-side energy audit should be conducted to catalog every piece of equipment based on their energy usage. State whether true or false.
    1. True
    2. False
16. Which key metric can help efficiently manage the energy usage of a manufacturing unit?
    1. Total liquid discharge
    2. Average solid waste discharge
    3. Load profile
    4. None of the above
17. Accurate prediction of demand can help reduce energy usage spikes in the factory. State whether true or false.
    1. True
    2. False
18. Where in the manufacturing unit can we bring about the largest energy reduction gains?
    1. Waste disposal
    2. Raw material procurement
    3. Manufacturing processes
    4. Sales
19. Which of the following can help reduce energy consumption in an office?
    1. Turning off appliances after work
    2. Servicing air-conditioners regularly
20. How much energy can we save by increasing the air-conditioning target temperature by one degree Celsius?
    1. 3%
    2. 19%
    3. 6%
    4. 23%
21. Which of the following are ways to reduce energy consumption in the cafeteria?
    1. Using copper bottom vessels
    2. Cleaning and maintaining vessels
    3. Matching vessels size to burner size
    4. All of the above
22. Why do utilities go overlooked when it comes to checking for energy leakages?
    1. They are easy to monitor
    2. Simple architecture
    3. They require site-wide audits
    4. None of the above
23. A higher supply voltage can increase bulb life by 10%. State whether true or false.
    1. True
    2. False
24. Which of the following are easy methods to reduce energy use for lighting?
    1. Painting walls and ceilings white
    2. Switch off unnecessary lights
    3. Replace CFLs with LED bulbs
    4. All of the above
25. What happens with every 10 degree Celsius rise in operating temperature of motors?
    1. Rated life doubles
    2. Rated life halves
    3. Rated life remains unchanged
    4. None of the above
26. MFCA reduces material cost and the environmental impact associated with production. State whether true or false.
    1. True
    2. False
27. What does MFCA stand for?
    1. Modular Frame Crank Adjustment
    2. Material Flow Cost Accounting
    3. Material & Financial Chartered Accountant
    4. None of the above
28. What does MFCA help improve?
    1. Material productivity
    2. Efficiency of the human resources department
    3. Marketing outreach
    4. None of the above
29. MFCA help in the decision making process for whom?
    1. Business executives
    2. On-site managers
    3. Procurement managers
    4. All of the above
30. Which of the following are advantages of MFCA
    1. Improves material productivity
    2. Visualises emissions in the production process
    3. Helps reduce environmental burden
    4. All of the above
31. Material waste includes wastewater, raw material rejection waste, emissions to air and emissions to soil. State whether true or false.
    1. True
    2. False
32. MFCA promotes recycling of waste rather than reduction of waste in the first place. State whether true or false.
    1. True
    2. False
33. Which aspects of the production line does MFCA change?
    1. Product design and raw materials
    2. Decision making in capital investment
    3. Improving efficiency of supply chains
    4. None of the above
34. Should MFCA be applied to all the companies along the supply chain for better results?
    1. Yes
    2. No
35. Industrial engineering and total productive maintenance help visualise ‘time loss’. State whether true or false.
    1. True
    2. False
36. What aspect of production does MFCA help visualise?
    1. Material loss
    2. Cost of hiring personnel
    3. Security of the premises
    4. Environmental impact
37. MFCA can be categorised at which level when it comes to production management methods?
    1. Basic
    2. Intermediate
    3. Advanced
    4. None of the above
38. Can MFCA be applied alongside other production management methods?
    1. Yes
    2. No
39. What does EMA stand for?
    1. Environmental Maintenance Association
    2. Environmental Management Accounting
    3. Energy Management Access
    4. None of the above
40. State which statements are true from the following.
    1. Project team must have direct access to the accounting system
    2. Protocols aren’t important to improve the information system
    3. Never rely on estimates, only accurate data
    4. Project team must include accounting & engineering competences
41. How many days should the EMA assessment workshop be conducted for?
    1. 5-6 days
    2. 1-2 days
    3. 10-12 days
    4. None of the above
42. Which of the following personnel should be a part of the EMA assessment workshop for the previous business year?
    1. Building security
    2. Accountants
    3. Process engineers
    4. Housekeeping
43. Byproducts do not generate any income. State whether true or false.
    1. True
    2. False
44. Which of the following are suitable examples of byproducts?
    1. Auto parts manufactured for clients
    2. Sale of waste heat to municipal heat systems
    3. Sale of scrap
    4. All of the above
45. Byproducts may be generating income, but it may be better to reduce the amount of losses in production. State whether true or false.
    1. True
    2. False
46. Can material losses occur even before the production has started?
    1. Yes
    2. No
47. What kind of material losses occur after the production process is complete?
    1. Defective items
    2. Extra units produced due to change in demand
    3. Rejected raw material
    4. All of the above
48. Material flow can reveal the flow of money throughout the production process. State whether true or false.
    1. True
    2. False
49. Which of the following are costs associated with EMA?
    1. Environmental protection related costs
    2. Energy costs
    3. Waste and emission control costs
    4. All of the above
50. MFCA and EMA should be implemented simultaneously to make production cleaner and leaner. State whether true or false.
    1. True
    2. False
51. Which of the following can help reduce material wastage as well as increase profit margins in a production line?
    1. Proper optimisation
    2. Better communication between sales and procurement departments
    3. Continuous improvement throughout the production line
    4. All of the above
52. Should the management and production teams work together to identify losses occurring at various stages of the production?
    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