

# MCQ Question Solving Session-5

Subject: Energy Conservation and  
Management

Subject Code: 2181916

Prof. Krunal Khiraiya

61. The objective of energy management is

- a) To minimize energy costs ✓
- b) To minimize environmental effects ✓
- c) a & b
- d) None of the above

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62. Capital costs are the costs associated with

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b) Installation & Commissioning of project

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63. Which of the following is not an external source of fund

- a) Bank loans
- b) Leasing arrangement
- c) Revenue budget
- d) Private Finance

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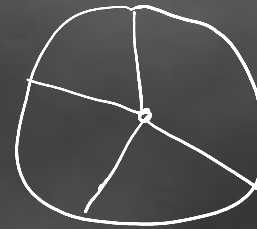
64. Percentage share of different energy consumption in an industry can be best shown by a

a) Pie Chart

b) Bar Chart

c) Line Diagram

d) None of the above





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65. "The judicious and effective use of energy to maximize profits and enhance competitive positions". This can be the definition of:

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- b) Energy management
- c) Energy policy
- d) Energy Audit

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66. Energy manger should be well versed with

a) Manufacturing and processing skills

b) Managerial and technical skills

c) Technical and marketing skills

d) Managerial and commercial skills

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67. An energy policy does not include

- a) Target energy consumption reduction
- b) Time period for reduction
- c) Declaration of top management commitment
- d)  Future production projection

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68. The tool used for performance assessment and logical evaluation of avenues for improvement in Energy management and audit is

- a) Fuel substitution
- b) Monitoring and verification
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69. The various types of the instruments, which requires during audit need to be

- a) easy to carry
- b) easy to operate
- c) inexpensive
- d) all (a) to (c)

✓

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70. Energy monitoring and targeting is built on the principle of "\_\_\_\_\_".

a) "production can be reduced to achieve reduced energy consumption"

b) "Consumption of energy is proportional to production rate"

✓ c) "You cannot manage what you do not measure"

d) None of the above.

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71. One of the following is not the element of energy monitoring & targeting system

- a) Recording the energy consumption
- b) comparing the energy consumption
- c) Controlling the energy consumption
- d) Reducing the production

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72. Data required to plot a moving annual total is \_\_\_\_\_.

- a) production ]
- b) energy ]
- c) both the above ✓
- d) none the above



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a) production

b) energy

**c) both the above**

d) none the above

73. The number of major green house gases covered for their reduction by the Kyoto protocol are

a) 10

b) 2

c) 6 ✓

d) 1

→ 6 GHG  
CO<sub>2</sub>, CH<sub>4</sub>, PFC  
HFC, SF<sub>6</sub>, NO<sub>x</sub>

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74. The name of the world commission on Environment and development is \_\_\_\_\_

- ✓ a) Brundtland Commission
- b) Zakaria Commission
- c) Planning Commission
- d) None of the above

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75. Steam is preferred medium for heating applications because:

- a) high latent heat ✓
- b) temperature break down is easy ✓
- c) Easy to control and distribute ✓
- d) all the above ✓

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76. In a plant a boiler is generating a saturated steam of 2 tonnes/hour at a pressure of 7.0 kg/cm<sup>2</sup>g. The feed water temperature is 70 °C and furnace oil consumption is 138 kg/h. What is the efficiency of the boiler by using direct method of efficiency evaluation? (calorific value of FO is 10,000 kCal/kg, enthalpy of steam is 660 kCal/kg.)

a) 65

b) 75

c) 85 ✓

d) 95

$$\eta = \frac{m_s (H_s - h_f)}{m_f \times CV} \times 100\%$$

$$= \frac{2 \times 10^3 (660 - 70)}{138 \times 10,000} \times 100\%$$

$$= 85.55\%$$

$$m_s = 2 \text{ TPH} = 2 \times 10^3 \text{ kg/hr}$$

$$H_s = 660 \text{ kcal/kg}$$

$$h_f = 70 \text{ kcal/kg}$$

$$m_f = 138 \text{ kg/hr}$$

$$CV = 10,000 \text{ kcal/kg}$$



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a) 65

b) 75

c) 85

d) 95

77. Approximate percentage reduction in power consumption with 1 °C rise in evaporator temperature in refrigerating systems is \_\_\_\_\_.

a) 2%

b) 3% ✓

c) 1%

d) 4%

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78. Replacement of steam based hot water generation by solar system is an example of

- a) matching energy usage to the requirement ✗
- b) maximising system efficiency ✗
- c) Energy substitution ✓
- d) Performance improvement ✗

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79. The energy manager has to perform the function of \_\_\_\_\_.

1) Organizer 2) Planner 3) Decision Maker 4) Team leader

a) 1, 2 & 3

b) 1 & 2 only

c) 1, 2 & 4

d) All the four above ✓

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80. Providing information to BEE is the role of energy manager as per

- a) Energy Conservation Act 2003
- b) Energy Conservation Act 2004
- c) Energy Conservation Act 2002
- d) Energy Conservation Act 2001 ✓



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- a) Energy Conservation Act 2003
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Thank  
you

