Introduction to Environmental Engineering and Science – Fundamental and Sustainability Concepts

Assignment- 1

TYPE OF QUESTION: MCQ/MSQ

Number of questions: 15 Total Marks 15 x 2 = 30

1.

How many 60 Watt Incandescent lamps are equivalent to three 15 Watt CFL (69)

a. 7
b. 22
c. 10
d. 21

Correct Answer:- b

Detailed Solution:

2.

Which of the following is a major greenhouse gas responsible for global warming?

a. Carbon dioxide (CO_2)
b. Hydrogen sulphide (H_2S)
c. Carbon monoxide (CO)
d. Oxygen (O_2)

Correct Answer:- a

Detailed Solution:

- The U.S. Environmental Protection Agency and the U.S. National Academy of Sciences release reports concluding that the build-up of carbon dioxide and other "greenhouse gases" in the Earth's atmosphere will likely lead to global warming.

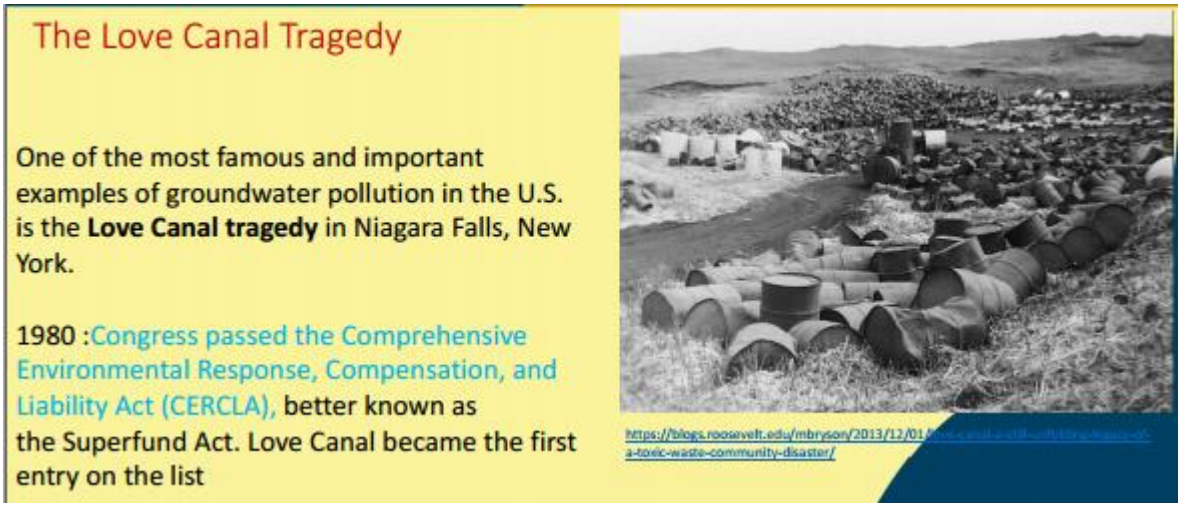
3.

One of the most famous and important examples of groundwater pollution in New York state (USA) is the _____.

a. Chernobyl Accident
b. Donora smog
c. Cuyahoga River fire
d. Love canal tragedy

Correct Answer:- d

Detailed Solution:



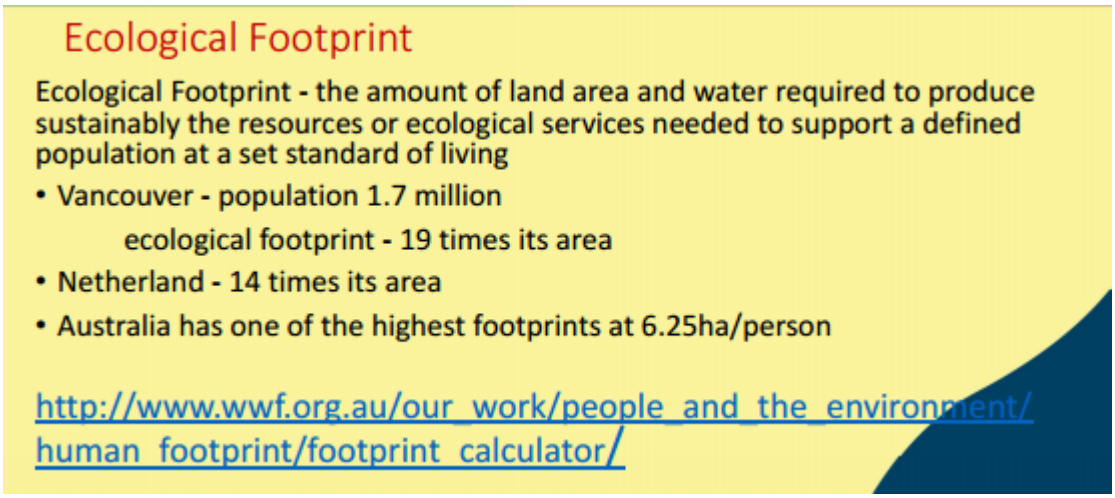
4.

The effect of a defined population on the environment, including land, water and other resources is termed as_____.

a. Ecological Fingerprint
b. Ecological History
c. Ecological Footprint
d. Sustainability

Correct Answer:- c

Detailed Solution:



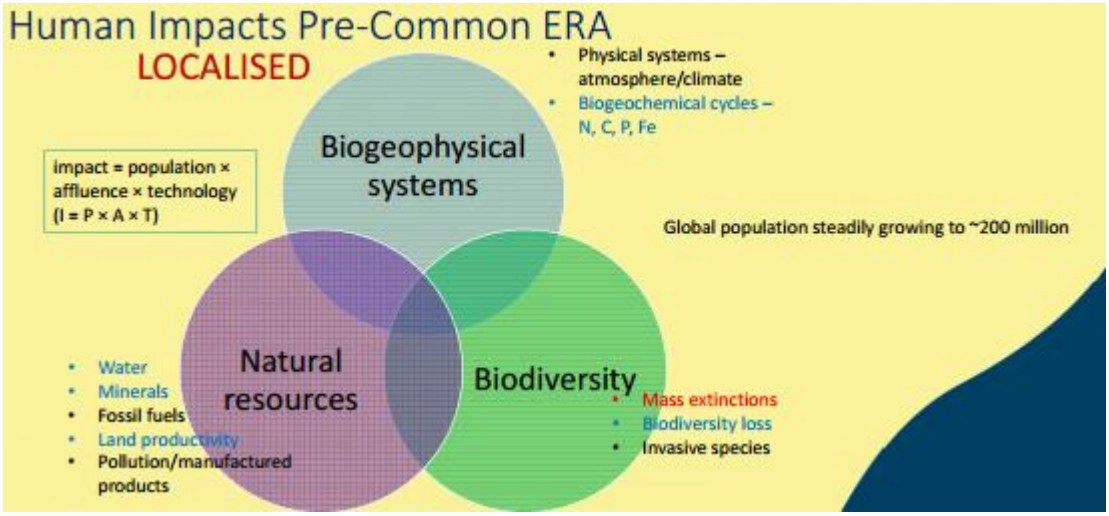
5.

Human impacts on the environmental system can be calculated by which of the following equation?

a. Population × Affluence × Time
b. Population × Affluence × Temperature
c. Population × Affluence × Technology
d. Population × Poverty × Technology

Correct Answer:- c

Detailed Solution:



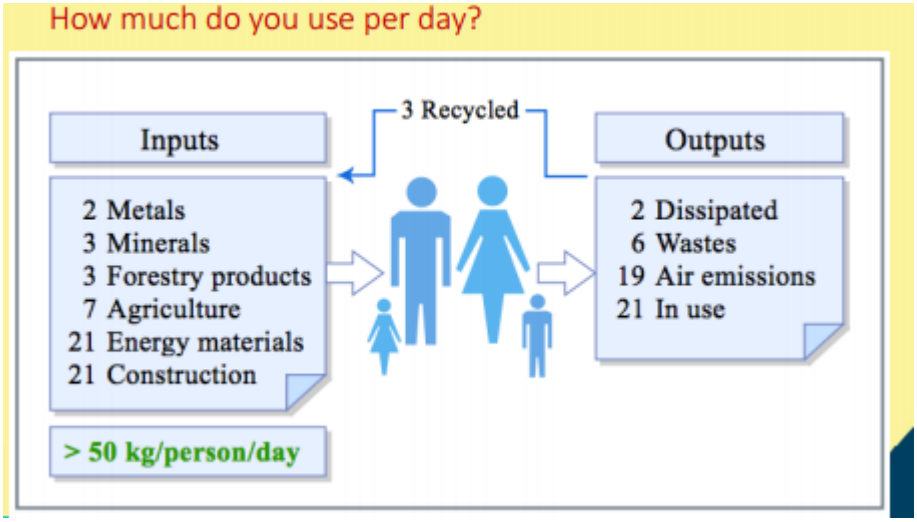
6.

How much input of resources is required per person per day on average?

a. 60 Kg
b. 100 Kg
c. 40 Kg
d. 50 Kg

Correct Answer:- d

Detailed Solution:



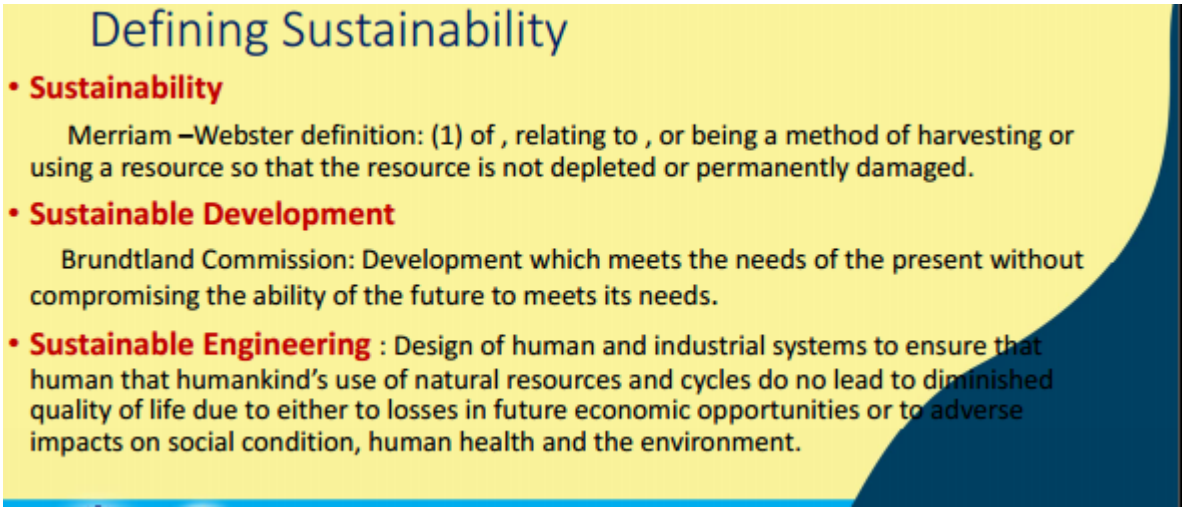
7.

Sustainable development is _____.

a. Meeting the present needs with compromising the ability of future generations
b. Meeting the present needs without compromising the ability of future generations
c. Using the material and resources at maximum levels
d. None of these

Correct Answer:- b

Detailed Solution:



8.

Match the correct options:

1.	MDG 2	A.	Improve maternal health
2.	MDG 6	B.	Global partnership for development
3.	MDG 5	C.	Combat diseases
4.	MDG 8	D.	Universal primary education

a. 1-A, 2-B, 3-C, 4-D
b. 1-B, 2-A, 3-D, 4-C
c. 1-D, 2-C, 3-A, 4-B
d. 1-C, 2-D, 3-B, 4-A

Correct Answer:- c

Detailed Solution:

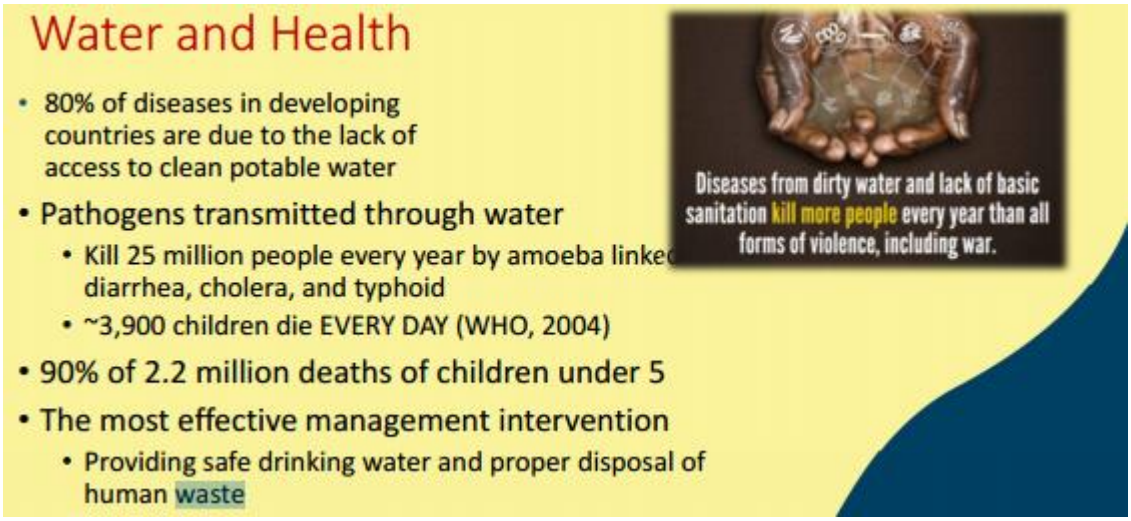
9.

The most effective management intervention of water and health are _____.

a. Provision of safe drinking water and improper disposal of human waste
b. No provision of safe drinking water and proper disposal of human waste
c. Provision of safe drinking water and proper disposal of human waste
d. No provision of safe drinking water and improper disposal of human waste

Correct Answer:- c

Detailed Solution:



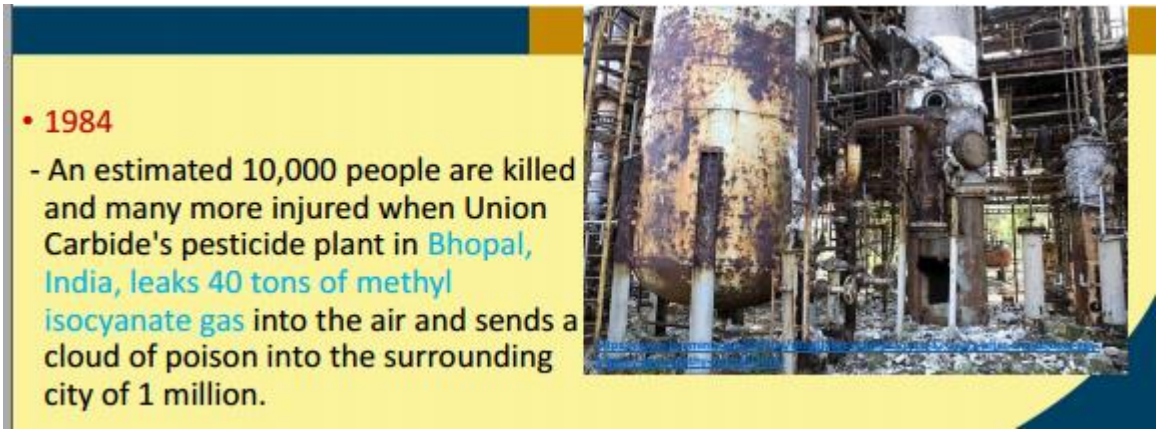
10.

Which gas is responsible for Bhopal Gas Tragedy (1984)?

a. Ethyl Isocyanate
b. Methyl Isocyanide
c. Hydrogen Cyanide
d. Methyl Isocyanate

Correct Answer:- d

Detailed Solution:



Select all the correct answers

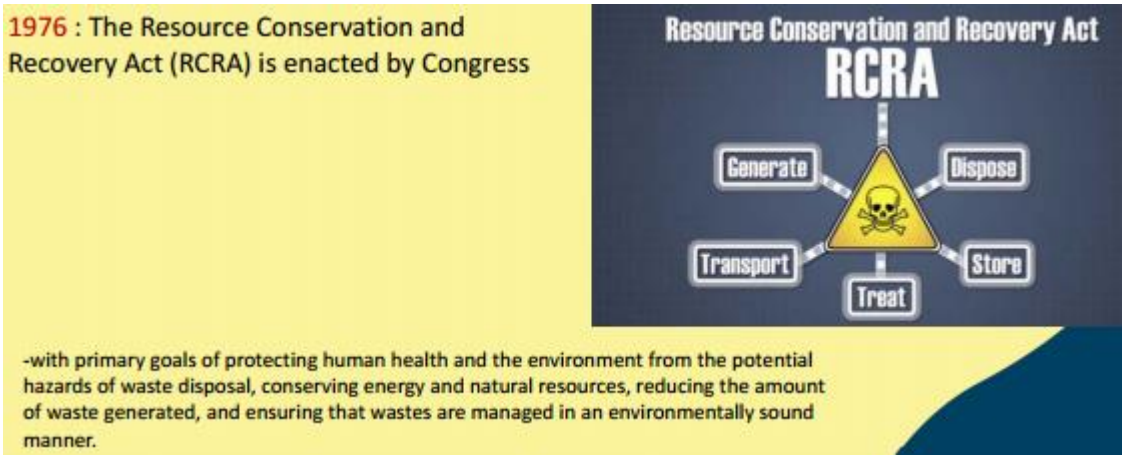
11.

Identify the correct statement/statements regarding the Resource Conservation and Recovery Act (RCRA).

a. It was enacted by Congress in 1978.
b. The primary goal of the act is to protect human health and the environment from the potential hazards of waste disposal, conserving energy and natural resources.
c. It focuses on waste management in the environment.
d. It focuses on waste maximization in the environment.

Correct Answer:- b,c

Detailed Solution:



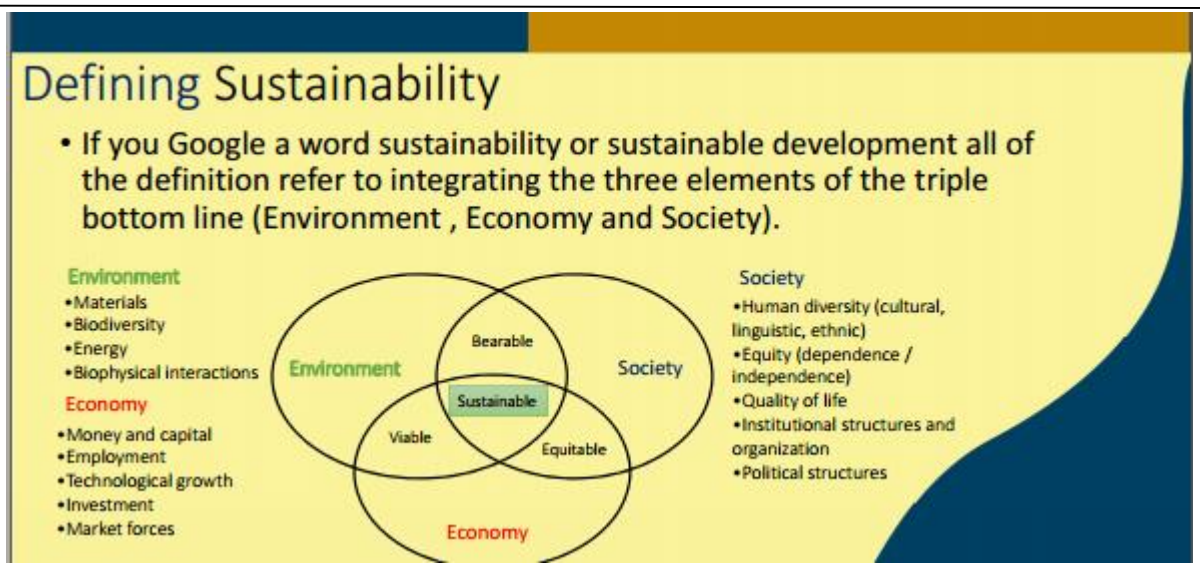
12.

Sustainable development is an integration of which of the following elements:

a. Environment
b. Society
c. Energy
d. Economy

Correct answer:- a,b,d

Detailed Solution:



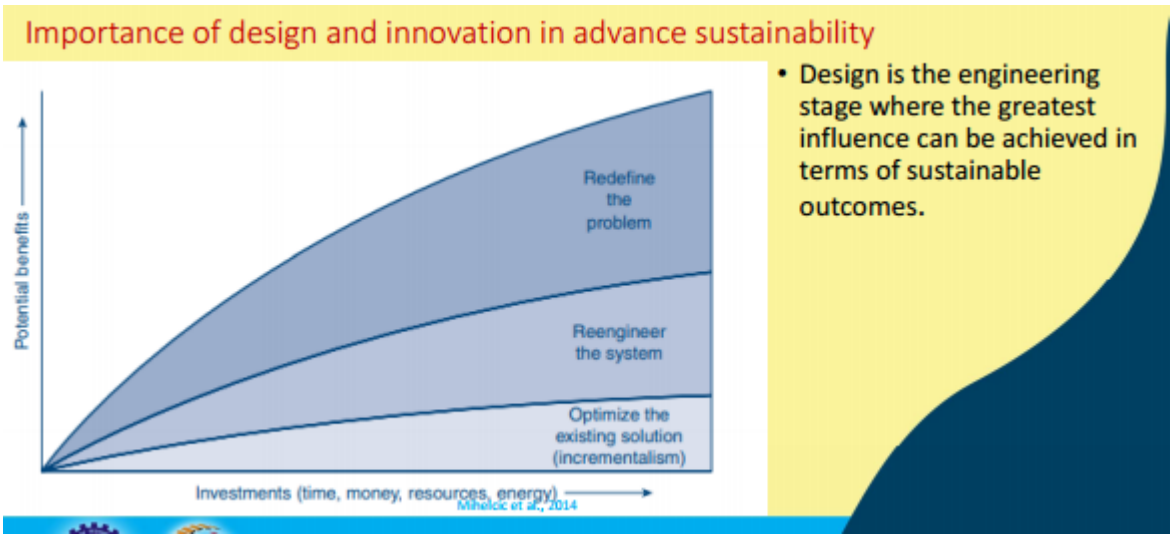
13.

What is the potential benefit of design and innovation in advanced sustainability?

a. Existing solution can be optimized
b. The problem can be redefined
c. The existing system can be interrupted
d. A new system can be corrupted

Correct Answer:- a, b

Detailed Solution:



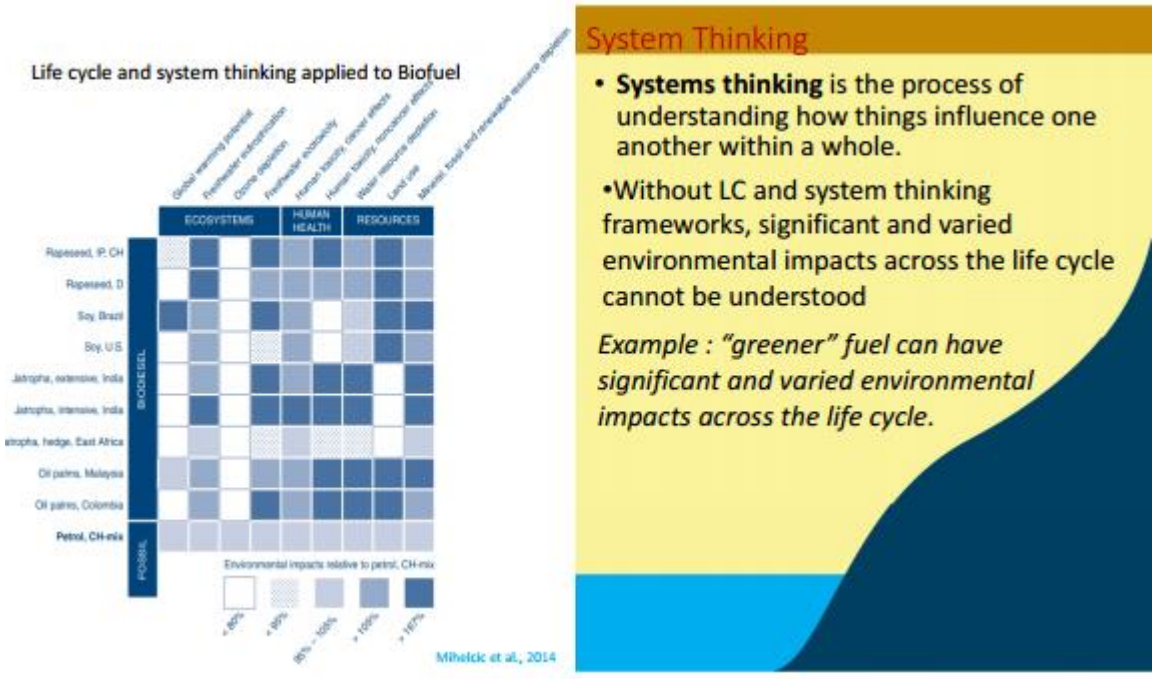
14.

Which of the following statements is/are correct?

a. Systems thinking is the process of understanding how things influence one another within a whole
b. In the circular economy, materials flow in a linear system
c. Without LifeCycle and system thinking frameworks, significant and varied environmental impacts across the life cycle cannot be understood
d. In the circular economy, materials flow in a closed-loop system

Correct Answer:- a, c, d

Detailed Solution:



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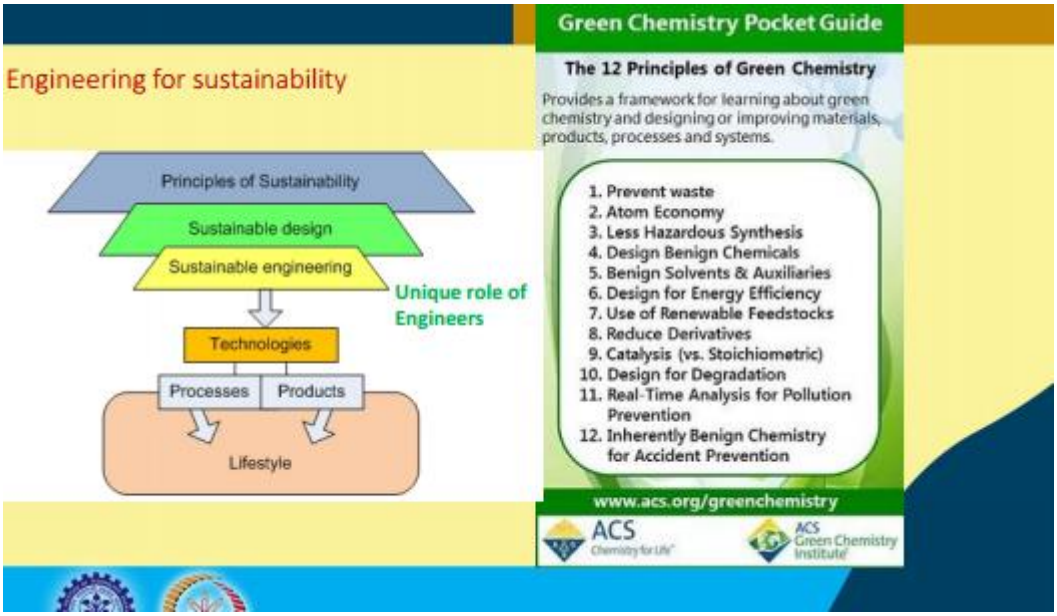
15.

Which of the following is a principle of Green Chemistry?

a. Increased use of derivatives
b. Use of Renewable feedstock
c. Overdue analysis for pollution prevention
d. Less hazardous synthesis

Correct Answer:- b, d

Detailed Solution:



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