Unit 10 - Week 8: Anaerobic Digestion

Assignment 8

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

1. Proton reducing bacteria are also known as .......... and acetate oxidising bacteria are also known as .......... which catalyzes acetate conversion to CO2 and H2.
   - Homooacetogens and H2 forming bacteria
   - Hydrolysers and homoacetogens
   - H2 forming bacteria and homoacetogens
   - Methanogens and H2 forming bacteria
   No, the answer is incorrect
   Score: 0
   Accepted Answers:
   - H2 forming bacteria and homoacetogens

2. Fixed dome type biogas digester originated in .......... and it was first named as .......... in India.
   - USA, California model
   - India, Khadi model
   - China, Janta model
   - Africa, Co-ontrobu model
   No, the answer is incorrect
   Score: 0
   Accepted Answers:
   - China, Janta model

3. Simultaneous decomposition of a homogeneous mixture of two or more substrates in the absence of oxygen is known as:
   - Anaerobic digestion
   - Composting
   - Anaerobic co-digestion
   - Aerobic co-digestion
   No, the answer is incorrect
   Score: 0
   Accepted Answers:
   - Anaerobic co-digestion

4. The rate limiting stage in anaerobic digestion process is:
   - Acetogenesis
   - Methanogenesis
   - Acetogenesis
   - Hydrolysis
   No, the answer is incorrect
   Score: 0
   Accepted Answers:
   - Hydrolysis

5. How many steps are present in anaerobic digestion?
   - 1
   - 2
   - 3
   - 4
   No, the answer is incorrect
   Score: 0
   Accepted Answers:
   - 4

6. .......... contributes to around 75% of methane formation during anaerobic digestion process.
   - Acetic acid
   - Propionic acid
   - Butyric acid
   - Valeric acid
   No, the answer is incorrect
   Score: 0
   Accepted Answers:
   - Acetic acid

7. Separating an anaerobic digester as hydrolysers and methanizers changes the process dynamics of individual bacteria inside a .......... digester:
   - Two stage
   - Three stage
   - Single stage
   - Name of these
   No, the answer is incorrect
   Score: 0
   Accepted Answers:
   - Two stage

8. During anaerobic digestion, acidogenic bacteria starts to flourish, when pH .......... inhibiting growth of .......... is
   - < 5.5, methanogens
   - > 6.5, acidogens
   - Between 5.5 and 7.5, methanogens
   - > 9.5, homoacetogens
   No, the answer is incorrect
   Score: 0
   Accepted Answers:
   - < 5.5, methanogens

9. An anaerobic digester can be said to have sufficient buffering capacity when:
   - Volatile fatty acids accumulation is greater than the alkalinity present
   - Alkalinity present is greater than the volatile fatty acid accumulation
   - Alkalinity and pH in the digester diminishes
   - Name of these
   No, the answer is incorrect
   Score: 0
   Accepted Answers:
   - Alkalinity present is greater than the volatile fatty acid accumulation

10. In anaerobic co-digestion, if C/N ratio is .......... digester buffer capacity becomes poor and .......... VFAs accumulation during the fermentation process inhibits the growth of methanogens.
    - Low, Increasing
    - High, Decreasing
    - High, Increasing
    - Low, Decreasing
    No, the answer is incorrect
    Score: 0
    Accepted Answers:
    - High, Decreasing