Week 7 Assignment 7
The due date for submitting this assignment has passed. As per our records you have not submitted this assignment. Due on 2018-09-19, 23:59 IST.

1) Which among the following is not a favorable condition for hydrate formation?  
   - a) Low pressure  
   - b) Low temperature  
   - c) Presence of seed crystals  
   - d) Agitation  
   
   No, the answer is incorrect.  
   Score: 0  
   Accepted Answers:  
   a) Low pressure

2) Addition of which of the following components raises the hydrate formation temperature
   - a) \(O_2\)  
   - b) \(N_2\)  
   - c) \(H_2\)  
   - d) \(CO_2\)  
   
   No, the answer is incorrect.  
   Score: 0  
   Accepted Answers:  
   d) \(CO_2\)

3) Addition of which of the following components lowers the hydrate formation temperature 
   - a) \(O_2\)  
   - b) \(N_2\)  
   - c) \(H_2\)  
   - d) \(CO_2\)  

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c) $N_2$

No, the answer is incorrect.
Score: 0
Accepted Answers:
c) $N_2$

4) Which among the following processes is not used for nitrogen removal in a natural gas system

- a) Distillation
- b) Absorption
- c) Membrane separation
- d) Cryogenic leaching

No, the answer is incorrect.
Score: 0
Accepted Answers:
d) Cryogenic leaching

5) Separation due to the difference in size of the components is discussed in which of the following adsorptive mechanisms

- a) Thermodynamic equilibrium mechanism
- b) Steric mechanism
- c) Kinetic mechanism
- d) None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
b) Steric mechanism

6) Membranes used for the separation of nitrogen from natural gas lose its separation performance with time due to the swelling of the membrane polymer due to $CO_2$, water and certain aromatic hydrocarbons. This phenomenon is called

- a) Cryogenic desublimation
- b) Plasticization
- c) Agglomeration
- d) Priming

No, the answer is incorrect.
Score: 0
Accepted Answers:
b) Plasticization

7) Which of the following solvents is used for bulk removal of $CO_2$ from natural gas?

- a) Methylaldehyde
- b) Methyldiethanolamine
- c) Methanol
- d) Ethanol

No, the answer is incorrect.
8) Out of the following, which is not a physical solvent?

- a) Selexol
- b) Amisol
- c) Rectisol
- d) Purisol

No, the answer is incorrect.

Score: 0

Accepted Answers:
- b) Methyldiethanolamine

9) Which of the following compressor parameters does not affect overall efficiency of the compressor?

- a) Suction pressure
- b) Speed of the compressor
- c) Delivery pressure
- d) Compression ratio

No, the answer is incorrect.

Score: 0

Accepted Answers:
- b) Amisol

10) Which of the following statements are correct about polytropic efficiency of compression?

- a) It is the ratio of the isentropic work to polytropic work.
- b) It is always greater than isentropic efficiency.
- c) It is always less than isentropic efficiency.
- d) It is the ratio of the polytropic work to isentropic work.

No, the answer is incorrect.

Score: 0

Accepted Answers:
- a) It is the ratio of the isentropic work to polytropic work.
- c) It is always less than isentropic efficiency.