X

Unit 2 - Week 1:

Assignment 1

The due date for submitting this assignment has passed. Due on 2016-09-14, 23:30 IST.
As per our records you have not submitted this assignment.

1) Multiphase flow occurs when *1 point*

- A. Two phases are present in a conduit
- B. Two phases flow independently in the conduit
- C. Two phases are interacting at the interface while flowing through the conduit
- D. All of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
C. Two phases are interacting at the interface while flowing through the conduit

2) The phenomena of phase inversion occurs in *1 point*

- A. Liquid-liquid flow
- B. Gas-liquid flow
- C. Gas-solid flow
- D. Solid-liquid flow

No, the answer is incorrect.
Score: 0

Accepted Answers:
A. Liquid-liquid flow

3) In water-lubricating oil core annular flow, the central core is *1 point*

- A. Water
- B. Lubricating oil
- C. Mixture of water and oil
- D. none of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
B. Lubricating oil

4) Heat and mass transfer is highest in *1 point*

- A. Bubbly flow
- B. Slug flow
- C. Annular flow
- D. Churn flow

No, the answer is incorrect.
Score: 0

Accepted Answers:
B. Slug flow

5) Which among the following statements are NOT TRUE? **1 point**
1. Bends enhance slug flow and increases mass transfer performance
2. Phase separation at outlet is easy for slug flow
3. Slug flow is accompanied with large diffusion distances
4. Slug flow gives rise to narrow residence time distribution and better produ quality

- A. 1
- B. 2
- C. 3
- D. 1,2,3

No, the answer is incorrect.
Score: 0

Accepted Answers:
C. 3

6) Which among the following statements are TRUE? **1 point**
1. Microchannel devices are accompanied by higher pressure drops
2. Cooling in microscale occurs mainly by phase transfer
3. Ultra clean fluids are desirable for microscale operations
4. Flow orientation plays an important role in microscale transport

- A. 1,2,4
- B. 2,3,4
- C. 1,3,4
- D. 1,2,3

No, the answer is incorrect.
Score: 0

Accepted Answers:
D. 1,2,3

7) The distribution of the two phases while flowing in a conduit depend on **1 point**

- A. Flow orientation and geometry
- B. Flow direction in vertical or inclined flows (up or down)
- C. Phase flow rates and properties
- D. All of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
D. All of the above

8) Of the following, which one is NOT a multiphase flow **1 point**

- A. Seepage of rain water through the ground
- B. Slurry transport
- C. Pneumatic transport
- D. Emptying of bottle

No, the answer is incorrect.
Score: 0

Accepted Answers:
A. Seepage of rain water through the ground

9) Stratification occurs due to the predominant effect of **1 point**

A. Viscosity
B. Surface tension
C. Gravity
D. Inertia

No, the answer is incorrect.
Score: 0

Accepted Answers:
C. Gravity

10) Choose the CORRECT statement *1 point*

A. Channel wall is always wetted by the fluid in gas-liquid flow (for both adiabatic and heated tubes)
B. Phase inversion is associated with large pressure drop and high degree of turbulence
C. Three layer flow pattern is found commonly in vertical two phase flow
D. There is a predominant effect of channel orientation in microchannel flow

No, the answer is incorrect.
Score: 0

Accepted Answers:
B. Phase inversion is associated with large pressure drop and high degree of turbulence

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