Chemical Engineering Heat Transfer Objective Questions & Answers Pdf

Question: 1

Radiator of an automobile engine is a _____ type of heat exchanger.

- (A) cross-current
- (B) direct contact
- (C) counter-current
- (D) co-current

Ans: B

direct contact

Question: 2

In film type condensation over a vertical tube, local heat transfer coefficient is

- (A) independent of local film thickness
- (B) equal to local film thickness
- (C) directly proportional to local film thickness
- (D) inversely proportional to local film thickness

Ans: D

inversely proportional to local film thickness

Question: 3

Heat transfer occurs by natural convection because change in temperature causes difference in

(A) heat capacity

(B) thermal conductivity

(C) density

(D) viscosity

View Answer

Ans: C

density

Question: 4

The film thickness for laminar film condensation on vertical surface _____ from top to bottom.

- (A) remains constant
- (B) and the surface conductance increase
- (C) cumulatively decreases
- (D) cumulatively increases

View Answer

Ans: D

cumulatively increases

Question: 5

Maximum heat transfer rate is obtained in _____ flow.

- (A) transition region
- (B) creeping
- (C) laminar
- (D) turbulent

View Answer

Ans: D

turbulent

Question: 6

The main purpose of providing fins on heat transfer surface is to increase the

(A) heat transfer co-efficient

(B) heat transfer area

(C) mechanical strength of the equipment

(D) temperature gradient

View Answer

Ans: B

heat transfer area

Question: 7

For a body with very high thermal conductivity,

(A) there will be no heat transfer at all

(B) heat transfer will be very rapid

(C) heat transfer will be very slow

(D) none of these

View Answer

Ans: B

heat transfer will be very rapid

Question: 8

With an increases in the thickness of insulation around a circular pipe, heat loss to surroundings due to

(A) convection and conduction increases

(B) convection and conduction decreases

(C) convection decreases, while that due to conduction increases

(D) convection increases, while that due to conduction decreases

View Answer

Ans: D

convection increases, while that due to conduction decreases

Question: 9

With increase in temperature, the thermal conductivity of a gas

(A) may increase or decrease depending on the type of gas

(B) increases

(C) decreases

(D) remains same

View Answer

Ans: B

increases

Question: 10

Economy of a multiple effect evaporator is not influenced much by the

(A) ratio of the weight of the thin liquor to thick liquor

(B) rate of heat transfer

(C) temperature of the feed

(D) boiling point elevations

Ans: D

boiling point elevations

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