Week 10 : Assignment 10

The due date for submitting this assignment has passed.

Due on 2021-10-06, 23:59 IST.

As per our records you have not submitted this assignment.

1) **All data that are presented in a steam table are based on the following assumption:** 2 points

(A) Specific internal energy and specific enthalpy of liquid water at T=0.01^{0}C and P = 1 atm is = 0.
(B) Specific internal energy and specific enthalpy of steam at T= 0.01^{0}C and P = 0.6113 kPa, is = 0.
(C) Specific internal energy and specific enthalpy of liquid water at T= 0.01^{0}C and P = 0.6113 MPa is = 0.
(D) Specific internal energy and specific enthalpy of liquid water at T= 0.01^{0}C and P = 0.6113 kPa is = 0.

A) B) C) D)

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

2) **Water/steam at P = 0.200 MPa and T = 150^{0}C is** 2 points

(A) Saturated steam
(B) Subcooled liquid
(C) Super-heated steam.
(D) Saturated liquid.

A) B) C) D)

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

3) **The specific enthalpy of liquid water at T = 151.86^{0}C and P = 0.50 MPa is** 2 points

(A) 639.66 KJ/ KG
(B) 640.21 KJ/ KG
(C) 2748.7 KJ/ KG
(D) 623.24 KJ/ KG

A) B) C) D)

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

4) **The latent heat of condensation of saturated steam at P = 11.0 MPa is** 2 points

(A) 1450.5 KJ/ KG
(B) 2705.6 KJ/ KG
(C) 1096.1 KJ/ KG
(D) 1255.5 KJ/ KG

A) B) C) D)

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

5) **Steam at P = 7 MPa and T = 350^0 C has specific internal energy** 2 points

(A) 3016.0 KJ/ KG
(B) 2580.5 KJ/ KG
(C) 2772.1 KJ/ KG
(D) 2769.3 KJ/ KG

A) B) C) D)

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

6) **What is the change in enthalpy when 2 Kg of super-heated steam at P = 8 MPa and T = 425^{0}C is cooled to liquid water at 0.101325 MPa at 100^{0}C?** 2 points

(A) 5617.26 KJ
(B) 551.65 KJ
(C) 2808.63 KJ
(D) 1103.3 KJ

A) B) C) D)

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

7) **What is the specific internal energy of super-heated steam at P = 45 MPa and T = 500°C?** 2 points

(A) 2678.40 KJ/ KG
(B) 2601.95 KJ/ KG
(C) 2525.50 KJ/ KG
(D) 2000.00 KJ/ KG

A) B) C) D)

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

8) **A mixture of water and steam at T = 100°C and P = 0.101325 MPa has specific volume = 0.1 m^3/ Kg. The percentage of steam in the mixture is:** 2 points

(A) 50 %
(B) 94.08%
(C) 5.91 %
(D) 100 %

A) B) C) D)

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

9) **Steam /water at P = 0.275 MPa has specific enthalpy = 1000 KJ/Kg. The temperature of the mixture is** 2 points

(A) 100.00°C
(B) 200.00°C
(C) 230.80°C
(D) 130.60°C

A) B) C) D)

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

10) **The specific enthalpy of the super-heated steam at T = 475^{0}C and P = 300 KPa is** 2 points

(A) 3327.75 KJ/KG
(B) 3433.25 KJ/KG
(C) 3486.0 KJ/KG
(D) 3275.0 KJ/KG

A) B) C) D)

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