CMGT 235 – Mechanical and Electrical Systems

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| --- | --- |
| Homework #4 | Due: 9/6 |

**Show all work for full credit.**

20 pts total

**Name**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Use a Psychometric Chart to answer the following questions.

1. A space at sea level is 75°F and RH = 50%

Find the other properties of the air in that space.

|  |  |
| --- | --- |
| DB | 75°F |
| RH | 50% |
| WB | °F |
| Humidity | Gr/lb |
| VP | In Hg |
| Enthalpy | Btu/lb |
| Vs | ft3/lb |
| Dew Point | °F |

1. A space at sea level has a WB = 65°F and a RH = 45%

Find the other properties of the air in that space.

|  |  |
| --- | --- |
| DB | °F |
| RH | 45% |
| WB | 65°F |
| Humidity | Gr/lb |
| VP | In Hg |
| Enthalpy | Btu/lb |
| Vs | ft3/lb |
| Dew Point | °F |

Continued on back

1. A space at sea level is 25°F and RH = 30%

Find the other properties of the air in that space.

|  |  |
| --- | --- |
| DB | 25°F |
| RH | 30% |
| WB | °F |
| Humidity | Gr/lb |
| VP | In Hg |
| Enthalpy | Btu/lb |
| Vs | ft3/lb |
| Dew Point | °F |

1. Relative humidity is ­­­­­\_\_\_\_\_\_\_\_\_\_% at the saturation line.
2. Enthalpy is the sum of latent heat and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ heat.