### Assignment 8

The deadline for submitting this assignment is passed.

Due on 2019-06-26, 23:59 IST.

<table>
<thead>
<tr>
<th>Question</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Estimate the temperature (°C) to which the oil is heated:</td>
<td>2 points</td>
</tr>
<tr>
<td>A. 45°C</td>
<td></td>
</tr>
<tr>
<td>C. 35°C</td>
<td></td>
</tr>
<tr>
<td>2. What is the overall heat transfer coefficient (W/m² K) at 0°C?</td>
<td>2 points</td>
</tr>
<tr>
<td>A. 0.111</td>
<td></td>
</tr>
<tr>
<td>C. 75.0</td>
<td></td>
</tr>
</tbody>
</table>

**Common data for question numbers 2 & 3**

Using the psychrometric chart (Link here is view the chart) and calculate the following:

3. Absolute humidity of air (kg per kilogram of dry air) which has 55% RH and a dry bulb temperature of 65°C
   - A. 0.058 | B. 0.098 | C. 0.098 | D. 0.098
   - **Answer is incorrect.**

4. Wet-bulb temperature(°C) of air at 55% RH and a dry bulb temperature of 65°C
   - A. 31.8 | B. 11.6 | C. 47.0 | D. 82.6
   - **Answer is incorrect.**

5. RH (% of air having a wet bulb temperature of 65°C and a dry bulb temperature of 95°C)
   - A. 20 | B. 30 | C. 40 | D. 50
   - **Answer is incorrect.**

6. Which of the following phytomones provides the ideal solution for "frosting" the process in the desired fruit in 35% of the area?
   - A. Akin phytomones | B. Fuji phytomones | C. Fuji phytomones | D. Apple phytomones
   - **Answer is incorrect.**

7. Which of the following phytomones are used to disperse (atomize) the liquid food as a fine droplet into very hot oil?
   - A. Akin phytomones | B. Fuji phytomones | C. Fuji phytomones | D. Apple phytomones
   - **Answer is incorrect.**

8. Identify the type of air flow in a dryer in which low final moisture content is difficult to achieve:
   - A. Parallel flow | B. Counter-current flow | C. Cross-exhaust flow | D. Parallel flow
   - **Answer is incorrect.**

9. Which of the following components is used in plate type heat exchangers to prevent leakage?
   - A. A follower | B. A ring | C. A gasket | D. A bolt
   - **Answer is incorrect.**

10. Typical order of magnitude values (in W/m² K) for overall heat transfer coefficients for various heat exchangers are:
    - A. 5-6 | B. 0.5-0.8 | C. 1000-2000 | D. 4000-6000
    - **Answer is incorrect.**