Expt 1: Emissivity expt:

1. Are the two plates – test plate and the black plate – required to be identical in shape and size for this experiment? Explain your answer in brief.
2. If the black plate is not available, can you obtain the emissivity of the test plate? If yes, describe in brief how.
3. Can you briefly justify that the emissivity that is calculated in the experiment is the total hemispherical emissivity of the surface?

Expt. 10 Condensation in drop/film

1. The manual says “steam from steam generator enters the cylinder through a separator”. Why is this separator required?
2. There is a gauge that measures the steam pressure in the experiment. Is this measurement needed? Explain your answer.
3. The manual mentions an expression for heat transfer coefficient for film condensation, and calls it “theoretical”. Is this word appropriate? Explain your answer.