

CE 3305 Water Systems Design
Quiz 7
Spring 2014

The video "Flow Visualization" presented examples of pathlines and streaklines, as well as a way to approximate a streamline. Using your notes from watching the video, and the textbook answer the following:

1. What is the definition of a pathline?

PATH A FLUID PARTICLE TRAVERSES (FOLLOWS) IN A FLOW
(VELOCITY) FIELD

2. What is the definition of a streakline?

LINE GENERATED BY A TRACER INJECTED INTO FLOW
FIELD AT SOME STARTING POINT

3. If you could attach a light to a fluid particle and take a time exposure photograph, would the image you obtain be a pathline or streakline?

PATHLINE

4. Is the pattern produced by smoke rising from a chimney on a windy day analogous to a pathline or streakline?

STREAKLINE

5. What is your favorite color?

ENGLISH OR AFRICAN SPARROW?

OK, ~~THE~~ BLUE