Assignment 7

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment.

Due on 2019-03-20, 23:59 IST.

1) The experimental technique used to measure flow properties at the point in the spray is

- PDPA
- PIV
- PLIF
- High speed imaging

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

2) Which experimental technique is non-intrusive

- PDPA
- LDV
- High speed imaging
- All the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
All the above

3) If the wavelength of the laser source used in PDPA is 532nm, what is the minimum drop size can be measured (in μm)?

- 1
- 0.1
- 5

No, the answer is incorrect.
Score: 0
Accepted Answers:
All the above
5) In the PLIF experiments, wave length of 532 nm laser is used with "Rhodamine-6G" as a dye and the fluorescence wave length will be __________ the incident wave length.

- equal to
- lesser than
- greater than
- greater or equal to

No, the answer is incorrect.
Score: 0
Accepted Answers:
 greater than

6) In the above question, which filter is used to capture the intensity of the fluorescence.

- Notch filter
- High pass filter
- Low pass filter
- Filter not required

No, the answer is incorrect.
Score: 0
Accepted Answers:
 High pass filter

7) A DSLR camera is used to capture a perfume spray. With sufficient backlighting, which among the following combinations of the camera settings is likely to produce a bright sharp (crisp) photograph of the spray?

- Low shutter speed, high aperture opening and low ISO
- Low shutter speed, low aperture opening and high ISO
- High shutter speed, low aperture opening and high ISO
- High shutter speed, high aperture opening and low ISO

No, the answer is incorrect.
Score: 0
Accepted Answers:
 High shutter speed, high aperture opening and low ISO

8) The spray exiting a flat fan nozzle flaps at 50Hz. The flapping sheet is captured by the high speed camera at 200 fps with the shutter speed of 1/1000th of a second at a full frame resolution. The total capture time is 5 second. In the entire experiment, how many frames will be captured by the camera?
9) For the above question, how many frames can be obtained for each flapping motion of the spray?

- 4
- 40
- 50
- 250

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

10) Which experimental method is used to measure the non-spherical size of the droplet?

- PDPA
- LDV
- PIV
- High speed imaging

No, the answer is incorrect.
Score: 0
Accepted Answers:
*High speed imaging*