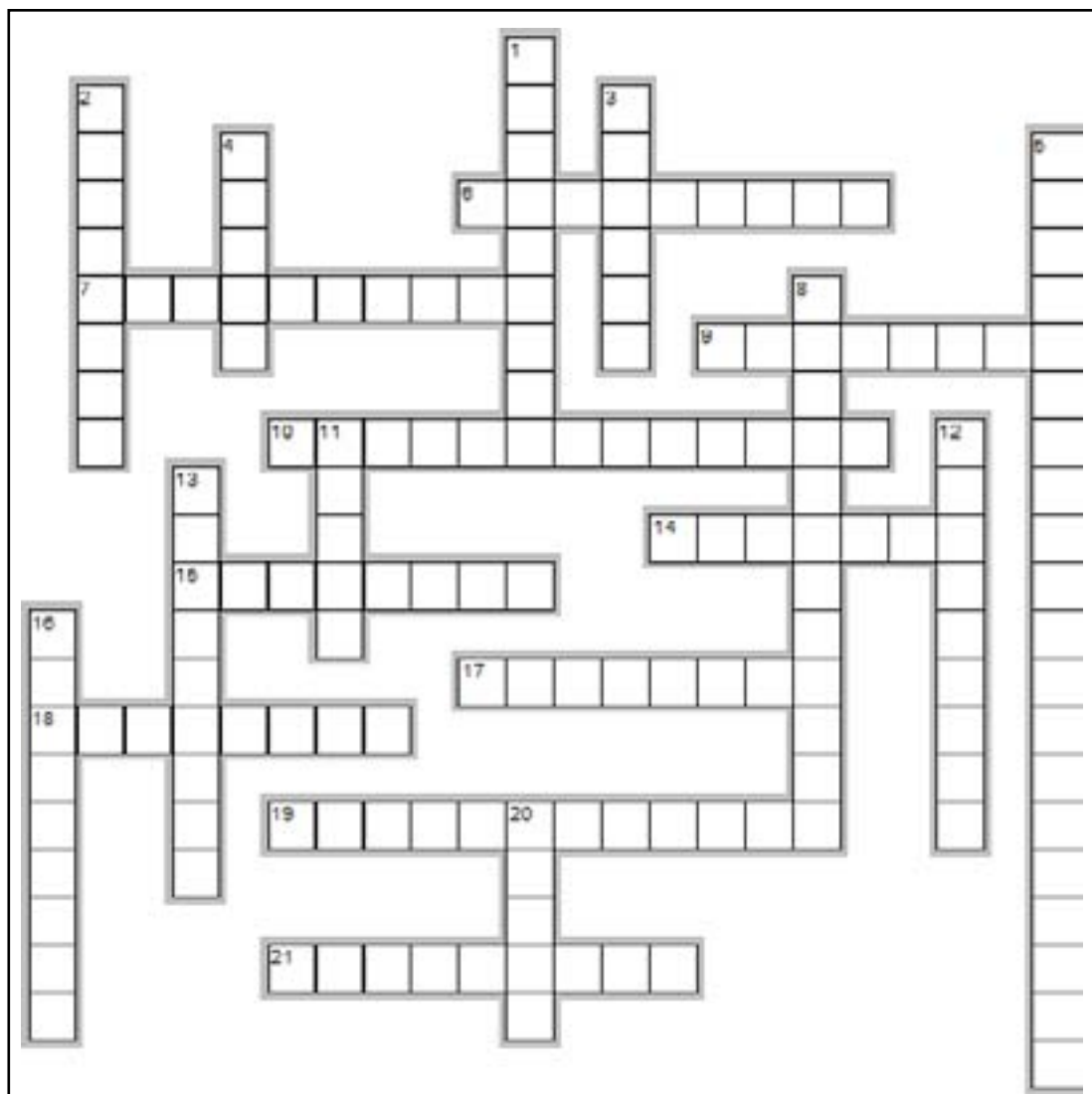


Fluid and Particle Mechanics Crossword Puzzle

Since crossword puzzles bring out our curiosity, they can enliven student interest and help promote effective learning in a classroom. Sometimes students lose interest in topics because of the elaborate theories required. Since most students are familiar with crossword puzzles, a crossword puzzle specific to the topic can really help engage the students. Further, there are always some students who moan that they understand the subject but don't do well in conventional exams. Crosswords can be used for a minor in-class quiz that tests the students' knowledge of technical terms, and all the students really enjoy doing it. This crossword puzzle was developed for a second-year course in Fluid & Particle Mechanics.

Across

6. incompressible flow with no shear
7. type of liquids separated by decanters
9. fraction of the voids
10. type of pump employing check valves
14. flow with no lateral mixing
15. flow observed in case of small objects moving in viscous fluids
17. type of fluid if flow behavior index is > 1
18. dimensionless number: ratio of inertial to viscous forces
19. density is not constant
21. diameter = flow cross-sectional area / wetted perimeter



Down

1. used to measure pressure difference
2. velocity of an object falling in air, with no acceleration
3. independent of time
4. substance that does not resist distortion permanently
5. constant velocity profile (3 words; space between words)
8. type of noninvasive flow meter (2 words)
11. equation of motion for inviscid and incompressible flow
12. the principle of conservation of mechanical energy
13. physics of the behavior of objects under application of force
16. velocity profile of Newtonian fluid in laminar flow in a circular pipe
20. mathematical model for packed beds

Answer key is on page 188.

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