

Chapter 14	
1. The fluid has a constant density throughout	Incompressible fluid
2. A situation at which layers of fluid slide smoothly past each other It is characteristic of lower fluid velocity	Laminar flow
3. The flow is irregular and complex, with mixing and eddies	Turbulent flow
4. A family of curved lines that are tangential to the velocity vector of the flow.	streamlines
5. Conservation of mass of the fluids The rate at which mass enters a system is equal to the rate of the liquid that leaves the system	Continuity equation
6. The speed of the efflux through an outlet pipe is proportional to the square root of the head height	Torricelli's equation
7. Ex 14.1 page 88	
8. Ex 14.2 page 90	
9. The number of cubic meters of a fluid collected in ----- is called volume flow rate.	one second
10. The velocity of a fluid multiplied by the area gives ----- of the fluid	volume flow rate
11. $A_1v_1 = A_2v_2$ is the	equation of continuity
12. A water pipe carries 4150 L of water in 33 s. If the speed of the water is 2 ms ⁻¹ , what is the radius of the pipe?	0.14 m
13. According to Bernoulli's equation, if the pressure decreases the velocity of the liquid -----	increases
14. Water flows through a pipe of area 'A' with a speed 'v'. If the area of pipe increases to '2A', what will be the speed of water now?	v/2
Chapter 15	
15. The effect of friction between the layer of fluid is considerable	Viscus fluid
16. A measure of the internal friction of a liquid	viscosity
17. The volume flow rate of the viscus fluid along a pipe is poroportional to the pressure difference and the pipe radius to the power of four and inversity proportional to the viscosity and pipe length.	Poiseuille's law
18. A dimensionless quantity that allows us to distinguish between laminar and turbulent flow	Reynolds number
19. Ex 15.1 page 96	
20. Ex 15.2 page 97	
21. The unit of viscosity is	Pa.s ⁻¹
22. The resistance of fluid to flow, is called...	viscosity
23. The drug is being delivered into a patients arm at the rate of 15mLmin ⁻¹ . The flow rate in m ³ s ⁻¹ is	2.5x10 ⁻⁷
24. If the flow of the liquid is irregular and complex, the flow is called ----- flow	turbulent
25. According to Poiseuille's law, if the length of the pipe increases the flow rate	decreases
26. If the Reynolds number is less than 2000, the flow is	laminar
27. A fluid is flowing in a narrow pipe at a rate of 6.5x10 ⁻⁶ m ³ s ⁻¹ . The internal diameter of the pipe is 1mm. if the density of the fluid is 1020 kgm ⁻³ , the flow will be? ($\eta = 8.90 \times 10^{-4}$ Pas)	