

FLUID STATICS||CHAPTER3||

SAMPLE QUESTIONS||

CONTINUE....

SHORT QUESTIONS AND ANSWERS||FLUID STATICS||CHAPTER3||

1. A. Define centre of buoyancy.
B. State and explain Archimedes principle.
2. A. Define centre of buoyancy and metacentre. Why should the meta centre lie above the C.G of a floating body?
3. A. State the law of floatation.
4. Define surface tension and explain its principle.
5. Establish the relation between surface tension and surface energy.
6. Surface tension of liquid is independent of the area of the liquid surface. Why?
7. Oil spreads over the surface of the water, whereas the water does not spread over the surface of oil, why?
8. Define capillarity and angle of contact. On what factors does it depend?
9. Why are the undergarments usually made from cotton?
10. State Newton's formula for viscosity of liquid.
11. Define coefficient of viscosity of liquid. Also, write the dimension and unit of it.
12. Define terms viscosity and terminal velocity.
13. Define velocity gradient and state its unit.
14. On which factors does terminal velocity depend? If an object is moving in a liquid.
15. Explain poiseuille's formula.
16. State and explain stoke's law.
17. Derive the expression for the coefficient of viscosity of a given liquid by using stoke's law.
18. Explain equation of continuity.
19. State Bernoulli's principle. Also, write its equation. On which principle does it base?
20. When a strong wind blows, the roof of the house is lifted up. Why?
21. A. Differentiate between the streamlined and the laminar flow of liquid.
B. Describe Reynold's number.