Outcome 8 Self Help Questions

1. A bottle has a mass of 35.00 g when empty and 98.44 g when filled with water. When filled with another fluid, the mass is 88.78 g. What is the specific gravity of the second fluid
   a. 0.75
   b. 0.85
   c. 0.95

2. What is the mass of the ethyl alcohol that exactly fills a 200.0 mL container? The density of ethyl alcohol is 0.789 gm/mL
   a. 1.578gm
   b. 15.78gm
   c. 157.8gm

3. Viscosity is
   a. The resistance of a fluid which is being deformed by stress forces
   b. How easy it is to slide over a surface
   c. How a fluid deforms under stress

4. Viscosity is increased when
   a. The temperature is increased
   b. The temperature is decreased
   c. Temperature doesn't matter viscosity remains constant

5. Resistance to fluid flow by contact with the pipe or duct walls is
   a. Static friction
   b. Normal friction
   c. Fluid friction

6. The purpose of streamlining is
   a. Make the aircraft look good
   b. Reduce the aircraft weight
   c. Reduce the drag of the aircraft

7. An incompressible fluid
   a. Is a fluid that is compressible
   b. Is a fluid that cannot be compressed
   c. Is a fluid that can be both compressible and incompressible

8. Most liquids
   a. Are compressible
   b. Can be compressible and incompressible
   c. Are incompressible

9. Water contamination in an hydraulic system can cause
   a. Corrosion of internal parts
   b. Corrosion and fatigue of internal parts
   c. Has no major detrimental impact on the system

22. The inertia of a body is
    a. a force that is acting on it causing it to accelerate
    b. a result of its mass which causes it to be reluctant to change its velocity
    c. the product of its mass and velocity

23. The linear momentum of a body depends on
    a. Its mass and its velocity
    b. How fast it is spinning
    c. Its mass and its acceleration due to gravity

24. The moment of inertia of a rotating body depends on
    a. Its angular velocity
    b. How its mass is distributed about the point of rotation
    c. Its mass and the acceleration due to gravity

25. Which of the following safety precautions must be applied when working with equipment containing gyroscopes
    a. Make sure gyroscopes are running before moving the equipment
    b. Always wear protective lenses when working on the equipment
    c. Switch off and allow the gyroscopes to run down for the specified time before moving the equipment

26. Gyroscopes are used in aircraft to
    a. To keep the aircraft at a constant speed
    b. As an aid to keep the aircraft level and on course
    c. To make sure the engines are running smoothly

27. The pivots that support the spinning mass of a gyroscope are known as the
    a. Swivels
    b. Gimbals
    c. Pivots

28. Precession in a gyroscope is
    a. Is the tilting or turning of a gyroscope in response to pressure
    b. Is the natural tilting of a gyroscope
    c. Is the rotational movement of the gyroscope

29. How is the rotating mass of a gyroscope kept rotating.
    a. Electric motor or air driven motor
    b. Intermittent use of electric motor
    c. Intermittent use of an air motor

30. Before transporting a gyroscope you must
    a. Ensure the gyroscope is in a well padded box
    b. Ensure the gyroscope locks and pins are fitted
    c. Ensure correct gyroscope type transportation box is used and all locks and pins are fitted