STD: VIII	**Marks: 60**
Date: 07/10/2020	**Time: 2hrs**

Question 1

    a. State Archimedes principle and law of floatation. **[2]**

    b. What causes cohesion and adhesion? **[2]**

    c. Why does evaporation produces a cooling effect? **[2]**

    d. When gas is cooled to certain point, it condenses give reason. **[2]**

    e. Relative density of an object is 3 and it has a mass of 600g. What is the volume of it will displace if it is immersed in the water? **[2]**

Question 2

    a. Mass of an empty density bottle is 45 g, it is 90 g when filled with water and 80 g when filled completely with a liquid. Find :
       i.   Volume of density bottle
       ii.   Density of liquid.
       iii.   Relative density of liquid. **[3]**

    b. A door is pushed open by a force of 50 N at a point 50 cm from the hinges, What is the moment of force. **[2]**

    c. Why we are not allowed to open the doors in an aeroplane? **[2]**

    d. Diffentiate between work and power .(any three point of differences) **[3]**

Question 3

    a. What are the two kinds of mechanical energy? Give one example of each. **[2]**

    b. State two condition when no work is done by a force. **[2]**

    c. A body of mass 30 kg moving with a speed of 25 ms^{-1} . Find its kinetic energy. **[2]**

    d. A car moves some distance by spending 2,00,000 J 0f in 3 min 20 s find the power of the car. **[2]**

    e. State the factors affecting the power. **[2]**

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