1. Physics is the study of matter in relation to energy

2. Cut – tie the wound to stop bleeding and then seek medical care

   Poisoning - seek medical care immediately

3. - thermodynamics
   - Atomic physics
   - Waves
   - Geometric optics
   - Electricity and magnetism
   - Mechanics – (any two)

4. The lenses used in microscope to study cells in biology are studied in physics

5. Can stop a moving body
- can slow down a body in motion
- can put a stationary body in motion
- can distort the shape of a body
  (any three)

6. - No eating in the laboratory
   - No putting foreign tunings in the sockets
   - No performing practical's without teachers instruction. (any three)

7. a) $P_1 = 69.0$ cm
      $P_2 = 71.0$cm
      $P_3 = 72.1$cm

   b) The object should be in constant with the ruler
      - The end of the object should be placed against the zero mark of the ruler
      - The eye should be placed perpendicularly above the scale

8. a) $1m^2 = 10000\ cm^3$ $\quad$ $0.5 \times 10{,}000$
      $0.5m^2$ $\quad$ $5000\ cm^2$

9. a) Volume is the amount of space occupied by an object SI unit cubic meters

b) $V = {}^{4}/_{3}$
$ {}^{4}/_{3} \times {}^{22}/_{7} \times 3 \times 3 \times 3$
$= 113.1148 cm^3$

10.

	mass	**weight**
-	measured in kg	measured in N
-	measure a beam balance	measured by spring
-	quantity of matter in an object	pull of gravity in an object

Any correct three)

b) Mass per unit volume kg/m^3

c) mss of water = 40.0g – 20.0g = 20g
volume of water = $\frac{m}{p} = \frac{40g}{1gcm^3} = 20cm^3$
mas of liquid x = 50.og – 20.0g
= 30.0g

$P = \frac{m}{v} = \frac{360.0g}{20.0}$

$= 1.5g/cm^3$

ii) Weight in air – weight in water
a 120 N - 80N = 40N

b) - imparities – addition lowers surface tension
- temperature – increase lowers the surface tension.

12. a) $w = mg$
$\frac{1000\ N}{50} = \frac{50}{50} \times g$

g) = 10N/kg

b) Cohesive forces between molecule of mercury is greater than the adhesive forces between the mercury molecules and glass molecules hence the shape.

13. a) Force acting perpendicular per unit area N/m^2

b) $P = \frac{F}{A}$

P 100 N
100

10000

$P = \frac{100\ N}{100} \div 10{,}000$

$= 10{,}000\ N/m^2$