Holiday package S2PHYSICS

1) State whether the following statements are **true** or **false**

a) The center of gravity is the point where the total weight of an object acts.

……

b) In a symmetrical object, the center of gravity remains at the center regardless of any changes to its shape or mass distribution.

……

c) An object's center of gravity can lie outside its physical boundaries.

……

d) The center of gravity of a hanging object always aligns vertically below the point of suspension. ……..

e) If the vertical line through the center of gravity falls outside the base of support, the object is unstable. ……

f) The center of gravity and the center of mass are the same point when the object has a uniform mass distribution. ……

2) Identify the choice that best answers the question below.

I) Express the room temperature of 27 ˚C in Kelvin.

a) 246 K b) 273 K c) 300 K d)320 K.

II) A faulty thermometer has fixed points 5℃ and 95℃. What is the correct temperature if it reads 59°C?

a) 50℃ b) 54℃ c) 60℃ d) 63℃

III) Convert 37 degree Celsius to degree Fahrenheit

a) 100.4°F b) 98.6°F c) 95°F d) 104°F

3) State whether each of the following statements is **True** or **False**

a) Given that a ray of light strikes a plane mirror at an angle of 30°, the angle of reflection is 60°. ……

b) A plane mirror always forms an image that is virtual and erect/upright.
……..

c) If two plane mirrors are inclined at 90 degrees to each other, three images of an object placed between them will be formed.
……

d) A pinhole camera of length 20 cm is used to view the image of a tree of height 1200 cm which is 4000 cm away from the pinhole. The height of the image of the tree obtained on the screen is 60 cm……

e) The pinhole camera works on the principle of linear propagation of light.
……

Have a good holiday and remember what we have talked yesterday!!!!!!!