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**MINISTRY OF EDUCATION, SCIENCE, VOCATIONAL TRAINING & EARLY CHILDHOOD EDUCATION**

**CHAMA DAY SECONDARY SCHOOL - MUCHINGA PROVINCE**

**GRADE 9 JETS JUNIOR PHYSICS**

**DATE GIVEN: Wednesday, 05 February 2014**

**TIME ALLOCATION: 30 Sec / Question Unless Specified In the Respective Question**

1. What is the farthest planet from the sun in the solar system?

**Pluto.**

1. The vacuum in a vacuum flask (thermos flask) is used to prevent transmission of heat by.

**Conduction and convection**

1. Explain why smoke rises up a chimney.

**When the air above the flame is heated, it rises carrying smoke particles with it.**

1. What is the function of the constriction in the clinical thermometer?

**It stops the mercury from contracting back into the bulb.**

1. An instrument that sends radio or television signals out into the atmosphere is called …..

**A transmitter.**

1. What is the density of pure water at room temperature and pressure?

**1g/cm3 or 1000kg/m3.**

1. The deputy headteacher's office has a switch on the wall. What is its use?

**To switch on/off or to close/complete the electric circuit or to open it/off.**

1. A salt crystal has a mass of 2g and a volume of 4cm3, find its density.

**Density = 0.5g/cm3**

1. In the year 2010, Zambia conducted a census. What is the importance of knowing the population of Zambia?

**It allows effective planning of public services and control of resources.**

1. The filament in the light bulb is usually using tungsten. What is the melting point of tungsten?

**3400℃**

1. The percentage of nitrogen, which is inhaled and exhaled by a man, is the same 79%. What does this tell you about nitrogen?

**It is inert (it is unreactive).**

1. What two properties of tungsten make it suitable to be used as a filament in a light bulb?

**High resistance and high melting point.**

1. What name is given to the planet, which we can see low in the west just after the sunset as the evening star and low in the east just before sunrise as the morning star?

**Venus.**

1. Which piece of apparatus can you use to determine the volume of a substance in the laboratory?

**Measuring cylinder.**

1. Give the formula for calculating the mass of an object, which links density, mass and its volume.

**Mass = volume ⨉ density**