WORKSHEET NO 1

Subject: Science

Date: 24/01/2014

Class: 9

1. Figure shows the position of layers of air, at one moment , as a sound wave of constant frequency passes through the air. Compressions are labeled as C and Rarefraction are labelled as R

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   State how figure would change if
   a) sound has higher frequency
   b) the sound were louder
   c) On figure draw a line marked with arrows to show the wavelength of sound.

2. In a ripple tank 12 ripples are produced in one second . If distance between crest and next trough is 10cm find :
   a) wavelength
   b) frequency
   c) velocity of the wave.

3. a) A longitudinal wave of wavelength 1cm travels in air with a speed of 330 m/s. Calculate the frequency of the wave. Can this be heard by normal human?
   b) When we put our ear to a railway track, we can hear the sound of an approaching train even when the train is far off but its sound cannot be heard through air. Why?

4. Write chemical formulae of following:
   a) lead nitrate
   b) washing soda
   c) magnesium(||) acetate
   d) mercury(||) chloride

5. Arrange the following in order of decreasing masses.
   a) 0.1g atom of silver
   b) 1 mole of sulphuric acid
   c) 1g of carbon

6. Verify the following:
   a) 5 moles of carbon dioxide and 5 moles of water do not have same mass.
   b) 240g of calcium and 240g of magnesium elements have a mole ratio 3:5

7. Describe the importance of classification. Give salient features of Class Pisces

8. Why is AIDS considered to be a syndrome and not a disease. Differentiate between acute diseases and chronic diseases.

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9. Why is it necessary to conserve natural resources? How can they be conserved?

10. Define biogeochemical cycles. Explain the oxygen cycle and nitrogen cycle.