

1. Define atomicity. (1)
2. Name the scientist who developed Binomial system of Nomenclature. (1)
3. Define relative density of a substance. (1)
4. Lactometers are used to determine the purity of a sample of milk. State the principle on which this instrument is based on. (1)
5. a) Explain why the foundation of a tall building is kept very wide.  
(b) Out of the positions given below, in which case do you apply more pressure on loose sand and why?  
(i) while you are standing, (ii) when you lie down. (2)
6. A group of ten students going for a workshop fits into a small car. If the combined mass of the car and students is 1500kg and the combined area of the wheels touching the ground is  $0.05\text{m}^2$ , calculate the pressure applied on the ground by the car and students?(2)
7. Write the chemical formula of the following:  
ii) Calcium Chloride                      ii) Magnesium Sulphate (2)
8. What is the atomicity of Phosphorous, Hydrogen, Argon and Ozone? (2)
9. List any four conventions followed while using scientific names. (2)
10. Identify the group to which the following belong: (2)  
a) Plants which bear seeds enclosed in fruits.  
b) Plants which are known as 'the amphibians of the plant kingdom'.  
c) Plants with fibrous root system and one cotyledon in the seed.  
d) Unicellular eukaryotic organisms with appendages such as cilia and flagella.
11. a) State the Law of Constant Proportion. (3)  
b) Taking the example of water explain the Law of Constant Proportion.
12. (a) Which physical quantity is depicted by mass per unit volume?  
(b) Mention any two factors on which buoyancy depends. (3)
13. Name the division to which following organisms belong and write two important features of each. (3)

