1. Which of the following correctly represents the increasing order of intermolecular forces of attraction between the particles?
    (A) solid > liquid > gas
    (B) solid > gas > liquid
    (C) gas > solid > liquid
    (D) liquid > gas > solid

2. Which of the following can be the reason for the increased usage of CNG in vehicles as a fuel?
    (A) High compressibility
    (B) Readily available
    (C) Easily renewable
    (D) More mileage

3. Which of the following process can liquefy gases?
    (A) Increasing pressure
    (B) Reducing pressure
    (C) Increasing temperature
    (D) Increasing volume.

4. Which of the following is an example of homogeneous mixture?
    (A) A mixture of vinegar and oil
    (B) A mixture of vinegar and water
    (C) A mixture of water and oil
    (D) A mixture of salt and oil

5. The concentration in terms of mass by mass percentage of a solution containing 20 g of common salt in 300 g of water is:
    (A) 3.7 %
    (B) 5.9 %
    (C) 6.25 %
    (D) 3.2 %

6. Which of the following statement is correct?
    (A) After centrifugation the denser particles, dissolve completely
    (B) After centrifugation the denser particles, remain suspended in liquid
    (C) After centrifugation the denser particles, settle at the bottom
    (D) After centrifugation the denser particles, forms thicker layer which float over the liquid

7. The unit for measuring atomic radius is
    (A) Millimeter
    (B) Nanometer
    (C) Micrometer
    (D) Centimeter

8. One atomic mass unit is equal to
    (A) $1/12^{th}$ of the mass of one atom of carbon-12
    (B) $1/12^{th}$ of the mass of one atom of oxygen
    (C) $1/12^{th}$ of the mass of one atom of hydrogen
    (D) 12 times the mass of carbon- 12

9. Calculate the molecular mass of H_2O
    (A) 18
    (B) 12
    (C) 33
    (D) 16

10. Maximum number of electrons that can be accommodated in M shell is
    (A) 9
    (B) 6
    (C) 18
    (D) 10

11. What is the atomic number of an atom which has 8 protons in it?
    (A) 4
    (B) 2
    (C) 5
    (D) 8

12. Who discovered electron?
    (A) J.J. Thomson
    (B) Albert Einstein
    (C) E. Goldstein
    (D) Rutherford

_____

13. A solution in which the cell gains water by osmosis is:
    (A) Hypertonic   (B) Hypotonic   (C) Isotonic   (D) None of these

14. The cell which lacks membrane-enclosed organelles is called:
    (A) Prokaryote   (B) Eukaryotic   (C) Protozoa   (D) Bacteria

15. Which of the plant cell shows the continuous division?
    (A) Permanent tissue   (B) Meristematic tissue
    (C) Vascular Tissue   (D) Parenchyma

16. Which of the following is a most important element in conducting water and mineral in the plants
    (A) xylem parenchyma   (B) Sieve tubes
    (C) companion cells   (D) Tracheid's

17. The cell responsible for covering the esophagus and the lining of the mouth is:
    (A) Parenchyma   (B) Cuboidal epithelium
    (C) Squamous epithelium   (D) Ciliated epithelium

18. Which of the following region contains the majority of the megadiverse countries?
    (A) Tropical Regions   (B) Dessert
    (C) Plains   (D) None of these

19. The simple eukaryotic organisms which use hair like cilia or whip like flagella for locomotion are seen in
    (A) Monera   (B) Plantae   (C) Protista   (D) Fungi

20. An object travels 20 m in 3 s and then another 20 m in 2 s. What is the average speed of the object?
    (A) 12   (B) 20   (C) 4   (D) 8

21. A car started from rest and attained a velocity of 72 km h^{-1} in 5 minutes. Calculate the acceleration.
    (A) 1   (B) 15   (C) 1/15   (D) 20

22. A fielder in the ground gradually pulls his hands backwards with the moving ball to:
    (A) Increase the momentum.   (B) Decrease acceleration of the ball.
    (C) Increase acceleration of the ball.   (D) Increase the speed of the ball

23. As the radius of the earth increases from the poles to the equator, what happens to the value of g
    (A) The value of g remains same at the poles and the equator
    (B) The value of g decreases at the poles than at the equator.
    (C) The value of g becomes greater at the poles than at the equator.
    (D) None of these.

24. Let the mass of an object be 20 kg. Calculate its weight on moon?
    (A) 12 N   (B) 1.96 N   (C) 32.6 N   (D) 196 N

25. The density of silver is 10800 kg m-3 while that of water is 1000 kg m-3. Calculate the relative density of silver.
    (A) 108.0 kg m^{-3} (B) 10.8 kg m^{-3} (C) 10 kg m^{-3} (D) 80 kg m^{-3}

_____

_____

26. A force of 10 N is acting on an object. The object is displaced through 5 m in the direction of the force.
    (A) 20   (B) 10   (C) 1   (D) 5

27. Calculate the potential energy of an object of mass 20 kg at a height of 6 m above the ground (g =10ms^{-2})
    (A) 120   (B) 200   (C) 60   (D) 1200

28. 1 kW h = …………… J
    (A) 36 X 10^6 J   (B) 3.6 X 10^6 J   (C) 36 X 10 J   (D) 3 X 10 J

29. An electric bulb of 100 W is used for 10 h per day. Calculate the 'units' of energy consumed in one day by the bulb.
    (A) 2 kW h   (B) 0.1 kW h   (C) 1 kW h   (D) 10 kW h

30. The regions where particles are crowded together and represented by the upper portion of the curve are known as:
    (A) Trough   (B) Contraction   (C) Depression   (D) Compression

31. The distance between two consecutive compressions (C) or two consecutive rarefactions (R) is called:
    (A) Crest   (B) Time period   (C) Frequency   (D) wavelength

32. More number of compressions and rarefactions passing a fixed point per unit time results in:
    (A) Reduced frequency   (B) high pitch   (C) low pitch   (D) decreased vibration

33. Elephantiasis is a:
    (A) Chronic disease   (B) Sexually transmitted disease
    (C) Communicable disease   (D) none of these

34. Which of the following disease is not caused by bacteria?
    (A) Typhoid   (B) anthrax   (C) tuberculosis   (D) kala-azar

35. Presence of high levels of all these pollutants causes visibility to be lowered, especially in cold weather when water also condenses out of air. This is called:
    (A) Smog   (B) Fog   (C) Mist   (D) Pollution

36. Which of the following is not the benefit of using fertilizer?
    (A) Supply nitrogen, phosphorus and potassium.
    (B) Ensure good vegetative growth.
    (C) Gives rise to healthy plants.
    (D) Ensuring that the crops get water at the right stages.

37. The process in which farm waste material like livestock excreta or any other organic matter is called: A
    (A) Composting   (B) Vermi composting
    (C) Tilling   (D) Ploughing

_____