

K.V IVRI MUKTESWAR
WINTER VACATION HOME WORK
CLASS - IX

- 1- Arrange the three states of matter in increasing order of their compressibility.
- 2- Name the instrument that measure the total distance covered by vehicle during a given time?
- 3- What are colloids? Explain why filter paper can't be used to separate colloids.
- 4- Which cell organelle is called the suicidal bag of the cell and why?
- 5- Define scalar and vector quantities and given two examples of each.
- 6- Name the states of matter that:
 - (a) Matter that has neither definite shape nor definite volume.
 - (b) Matter that has maximum force of attraction between the particles.
 - (c) Tissue present in human brain.
- 7- (a) Define valency.
 - (b) Explain Rutherford atomic model.
- 8- Why are mitochondria called power houses of the cell? List any two similarities and one difference between mitochondria and plastid.
- 9- Name the following:
 - (a) Tissue that forms the inner lining of our mouth.
 - (b) Tissue that connects muscle to bone in humans.
 - (c) Tissue that transports food in plants.
- 10- What is the importance of universal law of gravitation? Explain it through any three phenomenon.
- 11- A substance 'X' on heating gives Y and Z. What is X - An element or a compound? State two differences between an element and a compound
- 12- (a) State Newton's second law of motion.
 - (b) write the mathematical formulation of second law of motion.
13. What is epithelium tissue? Name the three types of epithelial tissues. Draw the diagram for each type of epithelium tissue.
- 14-- (a) What is the work to be done to increase the velocity of a car from 30 km/h to 60 km/h if the mass of the car is 1500kg.
 - (b) Find the energy possessed by an object of mass 10 kg when it is at a height of 6 m above the ground .
($g = 9.8 \text{ m/s}^{-2}$)

15. 21- Answer the following questions –

- (a) Name the constituents of phloem tissue.
- (b) Write the specific function of Cardiac muscles.
- (c) State two differences between tendon and ligament.
- (d) Why is the rate of diffusion faster in gases.

16. Define the term work. State the condition that needs to be satisfied for work to be done. Give some situations in which work is done.

17. Write the scientific name of following –

Cow, Frog, Mango, Man, Pea, Tiger.

18. What is the difference between gymnosperms and angiosperms with examples?

19. What is the difference between Bryophytes and pteridophytes?

20. (a) Name the carbon compound responsible for depletion of ozone.

(b) What are the different states in which water is found during the water cycle?

21. Why do we classify the organisms?

22. Who proposed the five kingdom classification system of classification.

23. (a) Name the constituents of phloem tissue.

(b) Write the specific function of Cardiac muscles.

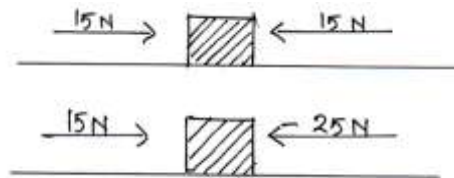
(c) State two differences between tendon and ligament.

(d) Name the tissue that –which Forms the inner lining of our mouth.

(e) Write one function of adipose tissue.

24. a) State newtons first law of motion.

b) Look at the diagrams given below and answer the following questions:--



In which case will the object move and in which direction ? give reason in support of Your answer.

25. Which separation technique will you apply for the separation of the following :--

- a. butter from curd .
- b. oil from water .
- c. tea leaves from tea .
- d. iron pins from sand .
- e. sodium chloride from its solution in water.

26. a. What is force ?

- b. when a force is applied to a body , what are the two essential effects it can produce ?
- c. Why bicycles do begin to slow down when we stop pedaling ?
- d. Which law of motion is also called the law of inertia ?

27. What is apiculture ? write any two varieties of bees used. What is pasturage and how it is Related to honey production.

28.a.Distinguish between speed and velocity .

b. Under what conditions is the magnitude of average velocity of an object equal to its Average speed.

c.what does the odometer of an automobile measure?

29. a) Arrange the following substances in increasing order of forces of attraction between the Particles --- water , sugar ,oxygen .

b) Convert the following temperatures into the Celsius scale and Kelvin scale – 300 k , 25 C

30. Calculate the work done in lifting 200 kg of water through a vertical height 6 meter. (Assuming $g = 10\text{m/s}^2$)

(b) When an object moves on a circular path, what is the work done?

31- What are complex permanent tissues ? give two examples.

32- Write four differences between a prokaryotic cell and an eukaryotic cell.

33- a. Draw a sketch of Bohr's model of an atom with three shells.

b. If K and L shell of an atom are full, then what would be the total number of electrons in the atom-

34- Differentiate between the following:

- a) Acute disease and Chronic disease
- b) Infectious disease and Non-infectious disease.
- c) Antibiotics and Vaccines.
- d) Congenital disease and Acquired disease.

35-(a) State the method of transmission of each of the following diseases :

- (i) Cholera
- (ii) AIDS
- (iii) Malaria
- (iv) Pneumonia

(b) Name the disease a person will get if the pathogen targets the liver of a person.