LIONS SCHOOL, MIRZAPUR

HALF YEARLY EXAM- 2020-21

CLASS – IX                                                                          M.M -80

SUB- Science                                                                   TIME- 3hr.

General instruction-

1-All questions are compulsory
2-Marks for each question are given next to it

**MCQ**                                                                          1x10=10

Q.1.   The atmosphere consisting of a large number of gases is held to the earth by:  1

(a) winds              (b) clouds        (c) earth's magnetic field          (d) gravity

Q.2.   When we talk of a force acting on a body, it usually means:                          1

(a) electrical force    (b) balanced force   (c) unbalanced force

(d) nuclear force

Q.3.   The slope of a speed-time graph gives:                                              1

(a) distance travelled   (b)  velocity    (c) acceleration       (d) displacement

Q.4.   The smelling of cooking vegetable in the kitchen comes out to our study room

because of –                                                                           1

(a) Osmosis          (b) Evaporation        (c) diffusion        (d) Respiration

Q.5.   Which of the following is a physical change                                         1

(a) Curdling of milk        (b) melting of ice            (c) Rusting of iron

(d) ripening of fruit

Q.6.   What is the example of an element                                                   1

(a) Copper          (b) Sugar          (c) Salt solution     (d) Milk

Q.7- Which of the following is micro nutrient-                                            1

(a) K          (b) N              (c) P              (d) Fe

Q.8- Power house of cell is-                                                               1

(a) Plastid          (b) Lysosome      (c) Mitochondria    (d) centriole

Q.9- Living portion of Xylem tissue is –                                                   1

(i) Tracheid's        (b) Xylem Fibre    (c) Vessel          (d) Xylem Parenchyma

Q.10-  The quantity of displacement is –                                                   1

(a) Scaler          (b) Vector          (c) both          (d) none of these

**Fill in the blanks-** 1x4=4

Q.11. The value of g on the earth is about _____ of that on the moon. 1

Q.12. ............ is a measure of the inertia of a body. 1

Q.13- Growth of plant is a .......................... change. 1

Q.14- A mixture of iron fillings and Sulphur can be separate by using of ..................... .1

**VSA-** 1X3=3

Q.15- How can you separate the sugar and salt from its mixture? 1

Q.16- What happens when saturates solution is heated? 1

Q.17- Why air is mixture and not a compound? 1

**SA-** 2X5=10

Q.19- Differentiate between homogeneous and heterogeneous mixture with

examples. 2

Q.20- convert the following temperature to the Kelvin scale- 2

(a) 25 $^0$C (b) 373 $^0$C
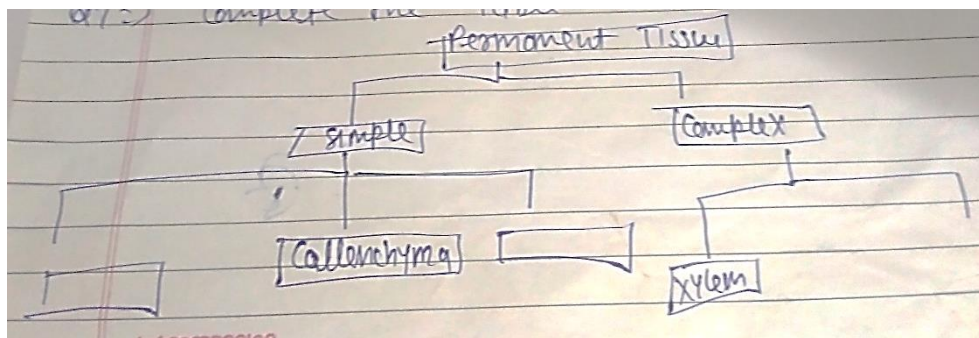
Q.21- What factors may be responsible for losses of grains during storage? 2

Q.22- Who proposed the cell theory also. Write the postulates of cell theory. 2

Q.23- State the location and function of different types of meristems. 2

**SA-** 3X10=30

Q.24- State and explain the newton's second law of Motion. 3

Q.25- The distance between Delhi and Agra is 200 km A train travels the first 100 km at a speed of 50 km/h . How fast must the train travel the next 100 km so as to average 70 km/h for the whole journey. 3

Q.26- Derive all the three equation of motion. 3

Q.27 A boy of mass 50 kg running at 5 m/s jumps on to a 20 kg trolley travelling in

the same direction at 1.5 m/s . What is their common velocity? 3

Q.28- What are the differences between mixture and compound? Give one example of

each. 3

Q.29- What is diffusion? Give the examples of diffusion of gas in gas and diffusion of

solid in liquid. 3

Q.30- Complete the table:-                                                     3



Q.31- Differentiate between parenchyma collenchyma and sclerenchyma on the basis of their cell wall.                                                                3

Q.32- Draw the structure of plant cell or animal cell. Write three differences between. Plant cell and animal cell.                                                      3

Q.33- To make a saturated solution 36g of sodium chloride is dissolved in 100g of water at 293 K. Find its concentration at this temperature.                    3

**LA-**                                                                        4X2=8

Q.34. What is the force of gravity on a body of mass 150 kg lying on the surface of the earth.(Mass of earth $=6\times10^{24}$kg, radius of earth$= 6.4 \times 10^6$ m, G$=6.7 \times 10^{-11}$ Nm$^2$/kg$^2$.).                                                          4

Q.35. State and Explain Kepler's laws of planetary motion.                     4

**LA-**                                                                        5x3=15

Q.36.- Explain the following-                                                   5

(i) Solution
(ii) Suspension
(iii)Colloid
(iv) Concentration of solution
(v) Solubility

Or

(i) Physical and chemical change
(ii) Metal , nonmetal and metalloids

Q.37- Name the following-                                                       5

(i) Tissue present in the brain.

(ii) Connective Tissue with fluid matrix

(iii) Tissue store fat in our body

(iv) Tissue connects muscle to the bone in human.

(v) Tissue form inner lining of our mouth.

Q.38- (a) How osmosis is different from simple diffusion. 5

(b) Define the terms, Hypotonic, isotonic and Hypertonic with examples.