

G.D. Goenka Public School, Patna

R.K. Puram, Khagaul road, Saguna More, Patna

HOLIDAY HOMEWORK - IX

ENGLISH

Q1. Read the book Wings of Fire by APJ Abdul Kalam and write a book review for the same. Make sure you include your personal response to the review. Also make a creative book jacket and put the review in it. Do not replicate the original cover of the book.

Or

Q2. Collect any five news items on the given issues. Paste them in a scrap book and comment on any two in 120-150 words.

- Environmental Issues
- Technological Developments
- Women Centric Issues

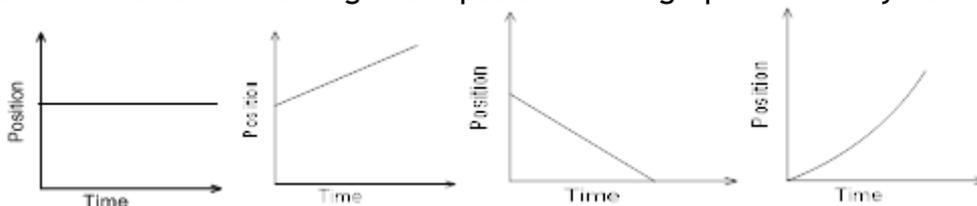
MATHS

- Find the decimal expansion of $10/3$, $7/8$ and $1/7$? What kind of decimal expansion each has.
- Show that $1.272727 = 1.\overline{27}$ can be expressed in the form p/q , where p and q are integers?
- Write three numbers whose decimal expressions are non-terminating & non recurring?
- Visualize $4.\overline{26}$ on the number line upto 4 decimal places
- Divide $f(x)$ by $g(x)$ and verify the remainder
$$f(x) = x^3 + 4x^2 - 3x - 10, g(x) = x + 4$$
- Without actually Calculating the cubes, find the value of $(-12)^3 + (7)^3 + (5)^3$
- Write the mirror image of the point $(2, 3)$ and $(-4, -6)$ with respect to the x-axis.
- Write the Co-ordinates of a point which lies on y-axis and is at a distance of 3units above x-axis. Represent on the graph.
- Take a triangle ABC with A $(3, 0)$, B $(-2, 1)$, C $(2, 1)$. Find its mirror image.(using mirror and graph)
- In which quadrant or on which axis do each of the points $(-2, 4)$, $(2, -1)$, $(-1, 0)$, $(1, 2)$ and $(-3, -5)$ lie? Verify your answer by locating them on the Cartesian plane.

SCIENCE

1. Physics

1. Make a list of inventions Sir Isaac Newton.
2. What did Archimedes contribute to the world? Also write about his life sketch.
3. Which of the following is the position time graph for a body at rest?



4. Draw velocity -time graph . show relation between
(a) slope and acceleration (b) area under the graph and displacement using graph ?
5. Differentiate between distance and displacement.
6. Derive graphically the first equation of motion $V=u + at$.
7. Define uniform velocity and uniform acceleration..
8. A car moving with a certain velocity comes to a halt after covering a distance of 62.5m. If the retardation was 5m/s^2 , find the initial velocity of the car?.
9. What is meant by uniform circular motion? Give three examples. Why is uniform circular motion called an accelerated motion.

2. Chemistry

1. Some substances cannot exist in the gaseous state, other cannot exist in the liquid state, and some cannot exist either in the gaseous or the liquid state. Giving suitable examples. Justify the above statement?
2. A student spilled a bottle of ammonia in one corner of the laboratory. Soon the whole laboratory was filled with pungent irritating smell. The students immediately opened the windows and doors and switched on the exhaust fans. After sometime, student got relief. Explain what did actually happen?
3. Carbon dioxide which is a gas under normal conditions of temperature and pressure can be liquefied by compressing it to 70 atm at ordinary temperature. What happens when pressure is suddenly released?
4. What is the difference between a gas and a vapour?
5. Ordinary water boils at 100 degree Celsius. Can it be made to boil at 95 degree Celsius or 105 degree Celsius?

6. Which state of matter is characterized by the following properties:

1. A substance with a fixed arrangement of particles.
2. A substance that has large distances between the particles.
3. What is diffusion? What are the factors on which rate of diffusion depends?
4. When a liquid boils, its temperature remains the same, so where does the heat go?

7. On blowing air into a balloon, it inflates." Explain Why

8. Why do we call sponge a solid even it is easily compressible?

9. Arrange the particles of the three states of matter:-

- a) In order of increasing randomness.
- b) Decreasing order of inter particle distances.
- c) What are the two factors responsible for interconversion of matter?
- d) How boiling is different from evaporation. Give 2 points.

10. Even 2-3 cups of potassium permanganate can impart colour to a large volume of water which characteristic property of particles of matter is illustrated by this observation?

11. Give Reason.

- a) Camphor disappears with time without leaving any solid.
- b) On a hot sunny day, people sprinkle water on the ground.

12. (a) Name the state of matter in which

- 1) Layers of particles can slip and slide over each other
- 2) (a) Particles just move around randomly, because of very weak force of attraction.
(b) List two ways by which a gas can be converted into a liquid.
(c) Clothes dry faster on a windy day.

13. After rains, wet roads dry quickly. Why?

14. How does perspiration or sweating help in keeping our body cool on a hot day?

15. Define the terms -

- a) Latent Heat of Fusion b) Latent heat of vaporization c) m.p & b.p

16. Why clothes dry faster when we spread them out.

17. Equal amount of water and alcohol are separately placed in two identical dishes. Which will evaporate faster - water or alcohol. Why?

18. Differentiate between solids, liquids and gases on the bases of

- a) Density b) Compressibility c) K. E d) Shape and volume e) intermolecular forces f) Fluidity

3. Biology

1. Make a 3D model of plant cell. (Project)
2. What are the contributions of Robert Hooke and Rudolf Virchow to our knowledge of cells?
3. Explain the structure and functions of Nucleus with the help of a well labelled diagram.
4. State the relationship between the following and fill in the blanks.
 - a. Plastids: Plant cells : : : Animal cell.
 - b. Cristae: Mitochondria : : : Chloroplasts.
 - c. Mitochondria : Respiration : : : Ribosomes.
 - d. Chloroplasts : Photosynthesis : : : Colour pigment.
5. Given below is an incomplete table relating to certain structure found in plants/animal cells. Fill the blanks appropriately.

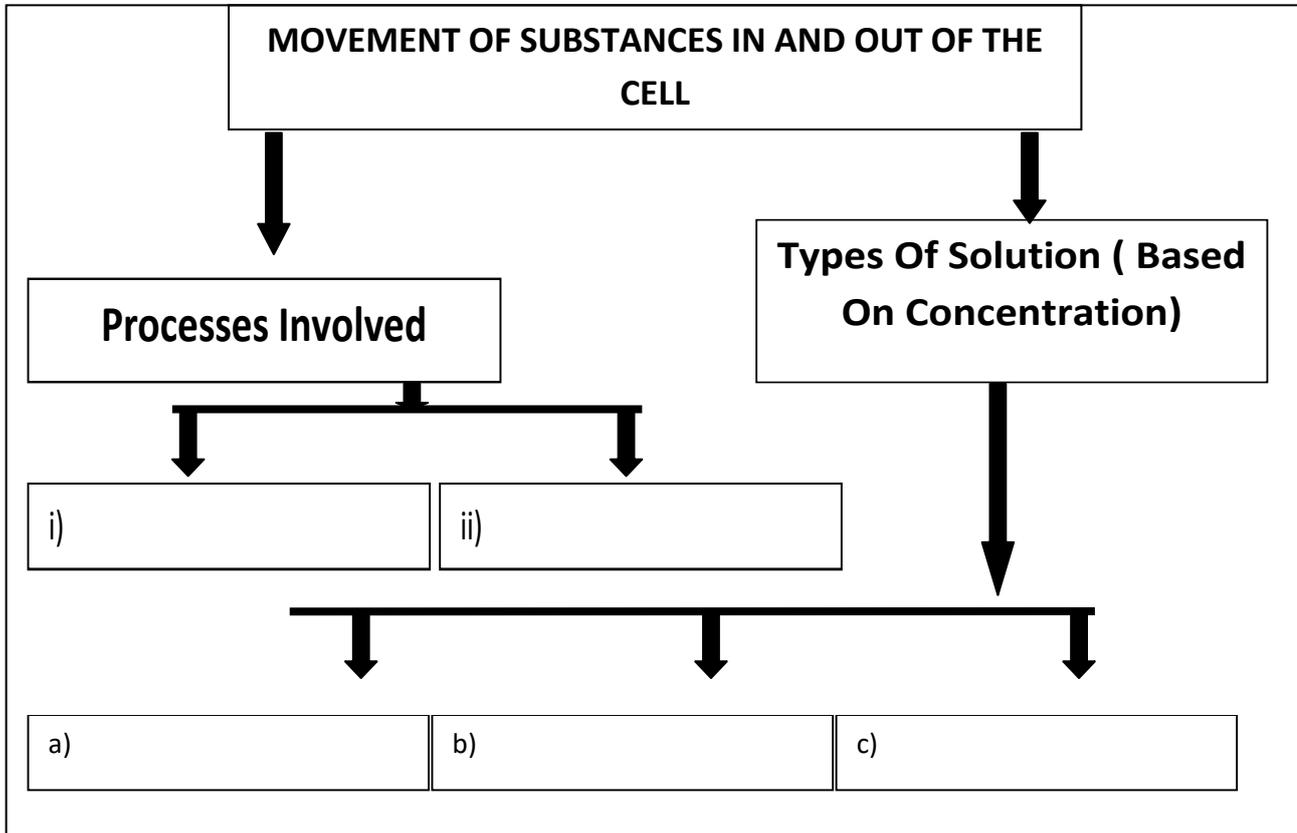
STRUCTURE	FOUND IN (LOCATION)	FUNCTION
i	ii	photosynthesis
iii	Both plants and animal cell	Spindle formation during cell division
Cell Wall	iv	v
vi	vii	Selectively permeable that allows selected substances to pass through
Nucleolus	viii	ix

6. Given below is an incomplete table illustrating differences between prokaryotic and eukaryotic cells. Complete the table by filling in the blanks.

Characteristic Feature	Prokaryotic Cell	Eukaryotic Cell
Size	Generally small(1-10 micrometre)	i
Nuclear regionii..... Called.....iii.....	Well defined surrounded by.....iv.....
Chromosome	vvi.....
Membrane bound cell organelles	Absentvii.....viii..... Named asix.....

Genetic materialX.....xi.....
Examplesxii.....xiii.....

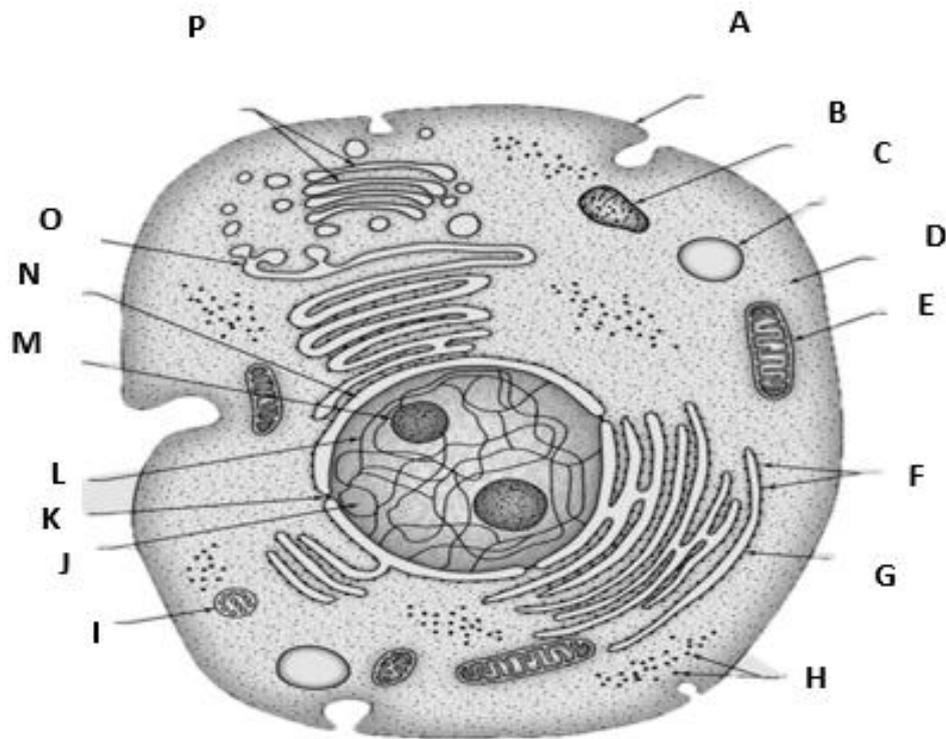
7. Complete the flow chart by giving definition of each:



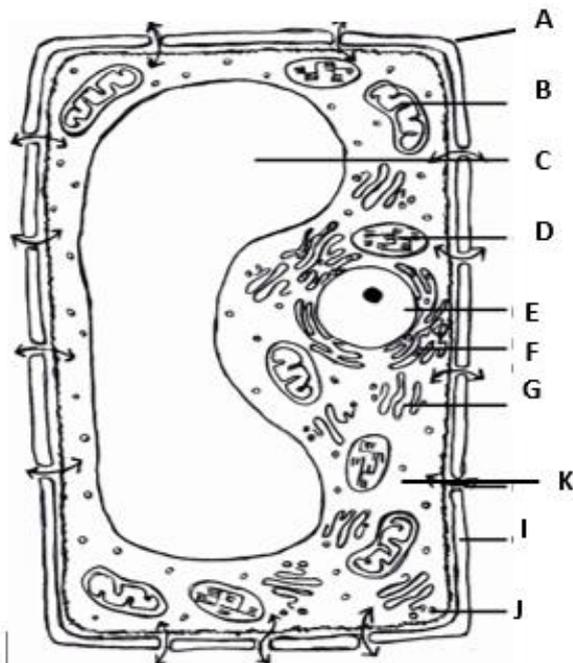
8. Identify the cell given below.

a. Label the following parts in it.

b. Which of these parts is known as the powerhouse of the cell? Give reasons in support of your answer.



9. Identify the cell given below.
- Label the following parts in it.
 - Name any two structures which are unique to this type of cell only



SOCIAL SCIENCE

1. History

Learn and write the following answers to the questions mentioned below :

- a. Describe the circumstances leading to the revolutionary protest in France.
- b. Describe the terms and conditions of the Constitution of 1791.
- c. How did France become a constitutional monarchy ?
- d. What is the significance of the Tennis court oath?
- e. The French Revolution popularised many symbols. Each symbol depicts some basic value. Describe the following symbols in your notebooks.

2. Geography & Economics

Learn and write the following answers :-

1. Why is the difference between day and night durations hardly felt in Kanyakumari, but not so in Kashmir?
2. Just before the Independence, How were the provinces and states in India organized ?
3. Map Skill (on an outline map of India)
 - 1.) A state with a large tribal Population.
 - 2.) This state became part of India in 1961.
 - 3.) The Strait separating India from Sri Lanka.
 - 4.) The State of India bordering three Countries but not bordering China.
 - 5.) The state borders both Bangladesh & Myanmar.
4. Why are farm Labourers like Dala & Ramkali poor?
5. Green Revolution is associated with loss of soil fertility. In the light of the statement mention five problems caused by modern farming.

हिंदी

- प्र०1) “दुःखः का अधिकार” पाठ में “जिंदा” और “मुर्दा” किसके प्रतीक हैं? पाठ में इसका जिक्र किस सन्दर्भ में किया गया है?
- प्र०2) लेखक ने ऐसा क्यों कहा है- “जब मन को सूझ का रास्ता नहीं मिलता तो बेचैनी में कदम तेज़ हो जाते हैं” - स्पष्ट करें |
- प्र०3) “शोक करने, गम मनाने के लिए भी सहूलियत चाहिए और...दुःखी होने का भी एक अधिकार होता है” लेखक के इस कथन का आशय उदाहरणों के माध्यम से स्पष्ट करें।
- प्र०4) “दुःख का अधिकार” पाठ में लेखक वृद्धा के रोने का कारण क्यों नहीं जान पाए? स्पष्ट करें।
- प्र०5) रैदास के प्रथम पद का मूलभाव अपने शब्दों में लिखें।
- प्र०6) रैदास दूसरे पद के माध्यम से ईश्वर के किन गुणों की ओर संकेत करते हैं?
- प्र०7) ‘नीचहु उच करै मेरा गोबिंदु काहू ते न डरै’ पंक्ति का आशय स्पष्ट करें।
- प्र०8) कौवों के संबंध में “महादेवी वर्मा” की धारणा “गिल्लू” पाठ के आधार पर स्पष्ट करें।
- प्र०9) लेखिका ने गिल्लू को मुक्त करने की आवश्यकता क्यों समझी? तीन कारणों सहित उत्तर स्पष्ट करें।
- प्र०10) “घयलों की सहायता के लिए धैर्य की आवश्यकता होती है” - “गिल्लू” पाठ के संदर्भ में स्पष्ट करें।

COMPUTER

1. Create a cover page of project in Ms. Word.
2. Create a Front page of project in Ms. Word.