

## ENGLISH

### 9<sup>th</sup> Class - Holiday Homework

- 1. Find the meaning of the following idioms & frame sentences with it.**
  - a. Cut the ground from under feet
  - b. Whole bag of tricks
  - c. Explore all avenues
  - d. Get ducks in a row
  - e. Think on your feet
  - f. Get the axe
  - g. Plum Job
  - h. Separate sheep from goats
  - i. Dead wood
  - j. Get the show on the road.
- 2. Complete Unit 1, 2 and 3 in your MCB.**
- 3. Complete the Chapters Tenses, Determiners Future, Time Reference & Modals.**
- 4. Gulliver's Travels (Book I)**
  - a. Pick out an important incident from each chapter. Draw and paste picture of it.
  - b. Write a summary of each chapter.
  - c. Draw a brief character sketch of-
    - i. Gulliver
    - ii. King of Lilliput
    - iii. Flimnap
    - iv. Redresal
    - v. Queen of Lilliput

## SOCIAL SCIENCE

### HISTORY:

French Revolution:

- 1 Prepare a timeline of the French Revolution.
- 2 Write about the contribution made by the following Philosophers in French Revolution:
  - 1) John Locke
  - 2) Rousseau
  - 3) Montesquieu
  - 4) Maximillian Robespierre
3. Lab Manual – Page no. 27 – 29

### CIVICS:

1. On the world map show any four democratic and ant four non democratic countries.
2. Write about the importance of these dates:
  - 1) 26<sup>th</sup> Jan 1950
  - 2) 26<sup>th</sup> Nov 1949
  - 3) 15<sup>th</sup> August 1947
3. Mention all the fundamental Rights and Duties given in the constitution.
4. How was democracy restored in Chile?
5. Lab Manual.

### GEOGRAPHY:

1. Draw a political map of India and show all the states and their capitals.
2. On an outline map of India show all physical divisions of India.
3. On an outline map of India show the latitudinal and longitudinal extent, the states through which Tropic of cancer passes, Indian Standard Time.
4. Assignment in the lab manual – page no. 5,6,8.
5. Project on Disaster Management.

### ECONOMICS:

Answer the following questions:

1. What are various requirements of production? Explain.
2. What factors have led to the reduction of water level in Palampur?

3. How many crops are grown by the farmers in Palampur? How are they able to grow these different crops in a year?
  4. Describe three main features of small scale manufacturing as non- farm activity in Palampur.
  5. "Green Revolution is associated with loss of soil fertility". In the light of this statement mention five problems caused by modern farming.
  6. How traditional seeds are differing from HYV seeds?
  7. What is physical capital? What are its different types?
  8. 'Capital is the basic need in agriculture' How is it arranged by Indian farmers?
  9. Farmers of which two states were the first to use modern farming methods in India? Mention any four positive effects of it.
  10. Explain any four non-farming activities in Palampur.
  11. What problems do farm labourers face in terms of employment? Explain any three problems.
  12. Define physical capital, fixed capital, human capital and working capital.
  13. State three reasons of variation in the wages of farm labourers all over India.
  14. Explain any three efforts which can be made to increase non-farming activities in villages.
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CLASS - IX  
SUBJECT - MATHEMATICS

- Find the value of 'a' and 'b' so that the polynomial  $(x^2 - 10x^2 + ax + b)$  is exactly divisible by  $(x - 1)$  and  $(x - 2)$   
[ a=23, b=-14 ]
- If  $(x^3 + ax^2 + bx + 6)$  has  $(x - 2)$  as a factor and leaves a remainder 3 when divided by  $(x - 3)$ , find the values of 'a' and 'b'.  
[ a=-3, b=-1 ]

3. Factorise:

- |   |   |
|---|---|
| (a) $x^2 + y - xy - x$                  | $[(x - y)(x - 1)]$                              |
| (b) $ab(x^2 + y^2) - xy(a^2 + b^2)$     | $[(bx - ay)(ax - by)]$                          |
| (c) $ab(x^2 + 1) + x(a^2 + b^2)$        | $[(ax + b)(bx + a)]$                            |
| (d) $27a^2 - 48b^2$                     | $[3(3a - 4b)(3a + 4b)]$                         |
| (e) $x^4 - 635$                         | $[(x - 5)(x + 5)(x^2 + 25)]$                    |
| (f) $a - b - a^2 + b^2$                 | $[(a - b)(1 - a - b)]$                          |
| (g) $x^3 - 5x^2 - x + 5$                | $[(x - 5)(x - 1)(x + 1)]$                       |
| (h) $7\sqrt{2}x^2 - 10x^2 - 4\sqrt{2}$  | $[(x + \sqrt{2})(7\sqrt{2}x - 4)]$              |
| (i) $5\sqrt{5}x^2 + 20x + 3\sqrt{5}$    | $[(\sqrt{5}x + 3)(5x + \sqrt{5})]$              |
| (j) $x^2 - 2x + \frac{7}{16}$           | $[\frac{1}{16}(4x - 7)(4x - 1)]$                |
| (k) $x^3 + 64$                          | $[(x + 4)(x^2 - 4x + 16)]$                      |
| (l) $(a - b)^3 + (b - c)^3 + (c - a)^3$ | $[3(a - b)(b - c)(c - a)]$                      |
| (m) $1 + b^3 + 8c^3 - 6bc$              | $[(1 + b + 2c)(1 + b^2 + 4c^2 - b - 2bc - 2c)]$ |
| (n) $a^3 - 0.064$                       | $[(a - 0.4)(a^2 + 0.4a + 0.16)]$                |
| (o) $a^3 + b^3 + a + b$                 | $[(a + b)(a^2 - ab + b^2 + 1)]$                 |
| (p) $\sqrt{3}x^2 + 11x + 6\sqrt{3}$     | $[(x + 3\sqrt{3})(\sqrt{3}x + 2)]$              |
| (q) $x^4 - 3x^2 + 2$                    | $[(x + \sqrt{2})(x - \sqrt{2})(x + 1)(x - 1)]$  |
| (r) $4x^4 + 7x^2 - 2$                   | $[(x^2 + 2)(2x - 1)(2x + 1)]$                   |

- If  $x = 2y + 6$ , find the value of  $x^3 - 8y^3 - 36xy - 216$

Ans: 0

5. Evaluate:

(a)  $(997)^2$  [994009]

(b)  $(106)^3$  [994011992]

(c)  $a^3 + 6ap + p^3 - 8$ , if  $p = 2 - a$  [0]

- Without actual division, prove that  $(2x^4 - 6x^3 + 3x^2 + 3x - 2)$  is exactly divisible by  $(x^2 - 3x + 2)$

- If  $x = 2 + \sqrt{3}$ , find the value of  $(x^2 + \frac{1}{x^2})$

Ans: 14

8. Simplify:

(a)  $(\frac{\sqrt{5}-1}{\sqrt{5}+1} + \frac{\sqrt{5}+1}{\sqrt{5}-1})$  [3]

(b)  $(\frac{4+\sqrt{5}}{4-\sqrt{5}} + \frac{4-\sqrt{5}}{4+\sqrt{5}})$  [ $\frac{42}{11}$ ]

- Find the value of 'a' and 'b' if  $\frac{5+2\sqrt{3}}{7+4\sqrt{3}} = a - b\sqrt{3}$  [a = 11, b = 6]

- Represent (a)  $\sqrt{19}$  (b)  $\sqrt{3.4}$  (c)  $\sqrt[7]{9}$  on the no. line

## SUB. - BIOLOGY

- I. If you are provided with some vegetables to cook, you generally add salt into vegetables. After adding salt, vegetables release water. Why?
- II. How absence of any one of the cell organelles will affect the cell's working?
- III. A solution of 3% glucose and a solution of 8% are kept in a trough separated by a semi-permeable membrane. What will you observe after 1 hour?
- IV. Where will you find more number of ribosomes, in cancer cells or in fat cells?
- V. Activity Based Questions

Prepare an experimental set-up consisting of two beakers. One beaker has water to which pieces of peeled carrots have been added. Second beaker, saturated sugar/ salt solution has been put in which pieces of peeled carrots have been added. Prepare this set up and keep it overnight before taking it into observation.

Now answer the following questions:-

- a) What is the difference in the physical state of the carrots as observed in the two beakers?
- b) Name the process involved that has caused a change in the carrot piece in one beaker?
- c) Why has the above process occurred?
- d) Name the type of solution in each beaker with respect to the carrot pieces.
- e) Name one process in your daily life which works on the same principle.
- VI. Animals of colder region and fishes of cold water have thicker layer of subcutaneous fat. Describe why?
- VII. If a potted plant is covered with a glass jar, water vapours appear on the wall of the glass jar. Why?
- VIII. Water hyacinth floats on water surface. Why?
- IX. Which structure protects the plant body against the invasion of parasites?
- X. Write all the question answers of chapter 5 and 6 given in text and at the end of the chapter.
- XI. Draw and label all the diagrams present in chapter 5 and 6 in a separate file.
- XI. Give a schematic representation of types pollution and its ill effects.

## CHEMISTRY

- 1 Write symbols of fifty elements and their valency
- 2 Write the formula of following compounds --- copper sulphate, aluminium sulphate, ammonium chloride, barium bromide. Calcium nitride .calcium phosphate, calcium bicarbonate. Potassium sulphate, ferroussulphate cuprousoxide, mercurouschloride, cupricchloride ferricoxide, ferric sulphate
- 3 Show by an activity that matter is composed of tiny particles.
- 4 Show by an activity that liquids have no shape of their own
- 5 Show by an activity that gases are most compressible
- 6 Show by an activity that gases have fluidity and tendency to diffuse.
- 7 Show that temperature remains constant during melting of solid

## Physics

1. Differentiate between distance and displacement. Is the distance and displacement of an athlete at the end of the race of a circular track is equal?
2. State which of the following situation are possible and give example
  - a. A body with acceleration but zero velocity
  - b. A body moving with constant velocity in an accelerated motion
  - c. A body moving horizontally with an acceleration in vertical direction
3. A car initially at rest attains a speed of 20m/s in 5 sec and moves with the same speed for the next 20 sec . And comes to rest for the next 10sec
  - a. Plot speed time graph
  - b. Find acceleration
  - c. Find retardation
  - d. Total distance covered
4. Derive the formula  $s=ut+\frac{1}{2}at^2$ , Where the symbols have usual meanings

