THE BLOSSOMS
SCHOOL
MUZZAMMIL MANZIL CIVIL LINES
ALIGARH
(AFFILIATED TO CBSE)

HOLIDAY HOMEWORK (2018-19)

CLASS – IX

- **ENGLISH:** *Sheet is attached.*
- **MATH:** *Sheet is attached.* (Please do it in a separate Notebook)
- **SCIENCE:**
  Physics: *Sheet is attached.*
  Biology: *Sheet is attached.*
- **HINDI:**
  1) स्वतंत्रता आंदोलन में भाग लेने वाली किन्ही तीन महिलाओं के योगदान के बारे में चित्र सहित जानकारी प्राप्त करके परियोजना (Project) तैयार कीजिए।
  2) रेलवे के सुरक्षा नियमों के पालन हेतु एक विज्ञापन लिखिए तथा रेलवे का मोनोग्राम भी बनाए।
- **URDU:**
  ۱- مندرجہ ذیل عنوانات میں سے دو پر 200 الفاظ پر مشتمل مضمون لکھئے
  ۱- اسمارٹ فون کے نقصانات و فوائد
  2- گرمی کی چھٹیاں کیسے گزاریں
  3- تیوہار (قومی یا مذہبی)
  2- اپنے دوست، بھائی، بہن یا والدین کے نام خط لکھیے۔
- **SOCIAL SCIENCE:**
  - ***PROJECTS***
    1) The French Revolution saw the rise of newspapers describing the events of each day and week. Collect information and pictures on any one event and write a newspaper article.
    2) Most newspapers have an editorial Page. On that page the newspaper publishes its own opinions about current affairs. The paper also publishes the views of other writers and intellectuals and letters written by the readers. Follow any one newspaper for one month and collect editorials, articles and letters on that Page have anything to do will democracy. Classify these into the following categories.
       a) Constitutional and legal aspects of democracy.
       b) Citizens rights.
       c) Electoral and Party Politics.
       d) Criticism of democracy.

HOLIDAY HOMEWORK (2018-19)
ENGLISH
CLASS IX

I. Use the following words to write a story. You may change the form of the words.

Gratitude, triumphant, hurdles, sympathetic, breakdown, anxious, serious, desperate

II. The following letter has several errors. Read and edit it carefully.

Dear Suhasani,

I reached Mumbai in the 5th of March. At the 6th, on 5 P.M., I received a call from my aunt which lives in Kolkata. She tells me about an new project on environment that she has been offering in Germany. She wants me for accompany her as his assistant. My parents has already agreed and feeling that it would give me great exposures to the other part of the world.
Did you think it would be an good experiences for me? I do needs your advice so, please reply in the earliest.

Yours truly,
Namita

III. The underlined words or phrases are not in the correct places. Rewrite the passage correctly.

Most animals need from the attack of predators to protect themselves and hence, have systems of self and group defence evolved. Animal weapon ranges from armour such as spikes, claws, shells, horns, bony plates in the war against enemies, to poisonous chemicals that cause burns and kill or irritations. Are used to confuse the enemy tricks or mimicry and send it away.

IV. Some words are missing from the following dialogue. Rewrite the dialogue by filling in the missing words.

LATA : I was London. I had been asked attend a seminar there.

FARID : What was seminar about?

LATA : The delegates were asked present a paper on state of health youth in their countries.

FARID : What you highlight about the youth India?

LATA : I expressed deep concern regarding the young children's inclination fast food and aversion outdoor games.

V. The table below lists the past, present and future of 40 year old Derek Das. Write a paragraph on him.

childhood	middle age	old age
born in Shimla	Delhi	Chennai
football	tennis	golf
school	office work	social work
help classmates	assist colleagues	teach illiterate

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HOLIDAY HOMEWORK
Class – IX MATHS

1. Prepare the summary of all chapters of April & May syllabus like, properties formula, characteristics.
2. What is a Polynomial?
   - I. Define it in the terms like monomial, binomial etc.
   - II. What is degree?
   - III. Define the polynomial according to degree like linear, quadratic etc.
   - IV. Zeroes of the polynomial.
   - V. Factorization of a polynomial with examples.
   - VI. What is remainder theorem?
3. Holiday Homework Assignment.

HOLIDAY HOMEWORK ASSIGNMENT
Class – IX MATHS

1. Write three irrational numbers between $\sqrt{3}$ *and* $\sqrt{5}$.
2. $\frac{\sqrt{2}+\sqrt{3}}{3\sqrt{2}-2\sqrt{3}} = (a + b\sqrt{6})$ find the values of a and b.
3. Rationalize the denominator of $\frac{4}{2+\sqrt{3}+\sqrt{7}}$.
4. Verify whether the following are zeroes of the polynomial, indicated against them
   (i) $P(t) = 2x^3 - 9x^2 + x + 12$ at $x = \frac{3}{2}$. (ii) $p(x) = lx + m$, $x = -\frac{m}{l}$
5. Show by long division that $(x - 3)$ is a factor of $2x^4 + 3x^3 - 26x^2 - 5x + 6$.
6. Factorise the following by the remainder theorem.
   i. $x^3 + 13x^2 + 32x + 20$
   ii. $2t^3 - 5t^2 - 19t + 42$.
7. Factorise the following using suitable identities.
   i. $(-2x + 5y - 3z)^2$
   ii. $9z^2 - 6zy + y^2$
   iii. $8x^3 - (2x - y)^3$
   iv. $27a^3 + \frac{1}{64b^3} + \frac{27a^2}{4b} + \frac{9a}{16b^2}$
   v. $4a^2 + 9b^2 + 16c^2 + 12ab - 24bc - 16ca$.
8. Without actually calculating the cubes find the following value:-
   $(0.2)^3 - (0.3)^3 + (0.1)^3$

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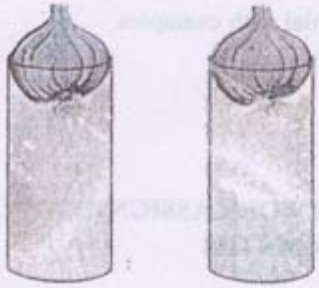
HOLIDAY HOMEWORK (2018-19)
BIOLOGY
CLASS IX

Activity:

1. To understand the location of meristematic tissues in plants.
2. To know the role of meristems in plant growth.

Method:

1. Take two similar glass jars and fill them with water.
2. Place one onion bulb on each of these jars as shown in the figure.
3. Keep observing the growth of roots in both the bulbs and measure the length.
4. After a certain length of root growth, (after the 4^{th} day of root growth) cut the tips of all the roots (for about a centimeter) in one of the jars and observe the growth of roots in he following days.
5. Record your observation in a tabular form as shown.



Jar 1 Jar 2

Observations:

Jar No.	Length of root (in cm)							
	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
1.								
2.								

1. Which of the two onion bulbs has produced longer roots? Why?
2. Why would the roots stop growing after we cut their tips in the bulb of Jar 2?
3. Why does growth in plants occur only at certain specific regions? Can you name these regions?
4. What type of meristem is present in root tips?
5. How is the bark of a tree formed?

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HOLIDAY HOMEWORK (2018-19)
PHYSICS
CLASS IX

1. Is the uniform circular motion accelerated? Give reasons for your answer

2. What is the difference between uniform linear motion and uniform circular motion? Explain with examples.

3. Find the initial velocity of a car which is stopped in 10 seconds by applying brakes. The retardation due to brakes is 2.5 m/s^2

4. Describe the motion of a body which is accelerating at a constant rate of 10 ms^{-2}. If the body starts from rest, how much distance will it cover in 2 s?

5. A motorcycle moving with a speed of 5 m/s is subjected to an acceleration of 0.2 m/s^2. Calculate the speed of the motorcycle after 10 seconds, and the distance travelled in this time

6. A bus running at a speed of 18 km/h is stopped in 2.5 seconds by applying brakes. Calculate the retardation produced.

7. A train starting from rest moves with a uniform acceleration of 0.2 m/s^2 for 5 minutes. Calculate the speed acquired and the distance travelled in this time.

8. Name the two quantities, the slope of whose graph gives:

(a) Speed, and

(b) Acceleration

9. A cheetah starts from rest, and accelerates at 2 m/s^2 for 10 seconds. Calculate:

(a) The final velocity

(b) The distance travelled.

10. A train travelling at 20 ms^{-1} accelerates at 0.5 m/s^2 for 30 s. How far will it travel in this time?

11. A cyclist is travelling at 15 m/s. She applies brakes so that she does not collide with a wall 18 m away. What deceleration must she have?

12. Draw a velocity-time graph to show the following motion: - A car accelerates uniformly from rest for 5 s; then it travels at a steady velocity for 5 s.

13. The velocity time graph for part of a train journey is a horizontal straight line. What does this tell you about (a) the train's velocity, and (b) about its acceleration?

14. A bus was moving with a speed of 54 km/h. On applying brakes it stopped in 8 seconds. Calculate the acceleration.

15. A train starting from a stationary position and moving with uniform acceleration attains a speed of 36 km per hour in 10 minutes. Find its acceleration.

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16. Name the quantity which is measured by the area occupied under the velocity-time graph.

(b) What does the slope of a speed-time graph indicate?

(c) What does the slope of a distance-time graph indicate?

(d). Name the type of motion in which a body has a constant speed but not constant velocity.

17. A tortoise moves a distance of 100 metres in 15 minutes. What is the average speed of tortoise in km/h?

18. If a sprinter runs a distance of 100 metres in 9.83 seconds, calculate his average speed in km/h.

19. A motorcyclist drives from place A to B with a uniform speed of 30 km h and returns from place to A with a uniform speed of 20 km /h. Find his average speed.

20. A motorcyclist starts from rest and reaches a speed of 6 m/s after travelling with uniform acceleration for 3 seconds. What is his acceleration?

21. What is the difference between distance travelled by a body and its displacement? Explain with the help of a diagram.

22. An ant travels a distance of 8 cm from P to Q and then moves a distance of 6 cm at right angles to PQ. Find its resultant displacement.

Questions Based on High Order Thinking Skills (HOTS)

1. A body is moving along a circular path of radius R. What will be the distance and displacement of the body when it completes half a revolution?
2. If on a round trip you travel 6 km and then arrive back home:
   (a) What distance have you travelled?
   (b) What is your final displacement?
3. A body travels a distance of 3 km towards East, then 4 km towards North and finally 9 km towards East.
   (I) What is the total distance travelled?
   (II) What is the resultant displacement?
4. A boy walks from his classroom to the bookshop along a straight corridor towards North. He covers a distance of 20 m in 25 seconds to reach the bookshop. After buying a book, he travels the same distance in the same time to reach back in the classroom. Find (a) average speed, and (b) average velocity of the boy.
5. A ball hits a wall horizontally at 6.0 m/s. It rebounds horizontally at 4.4 m/s. The ball is in contact with the wall for 0.040 s. What is the acceleration of the ball?