HOLIDAY ENGAGEMENT

CLASS X

Dear Children and Parents,

It is summer time, I hope you would enjoy your holidays to the best of your capacities. Holidays are time when you can connect with your child in many ways. As parents are the first and the most important teacher for a child, we can encourage our child to participate in many educational activities at home and promote his/her quest to learn. Working together will not only help your child to build, learn and develop his/her skills but also strengthen your bond with him/her.

- ➢ **Spend good time with your family.**
- ➢ **Try to do your written work regularly to enhance your writing skills.**
- ➢ **Pay special attention towards your health and wellbeing.**
- ➢ **Don't play in the sunshine or in hot places.**

General Instructions:

- o **All the work is to be done as per the instructions given by the concerned subject teacher.**
- o **It should be done in a neat and clean manner.**
- o **The homework of all the subjects must be kept properly for submission.**
- o **Read the homework carefully before starting it.**
- o **Please follow the instructions given in all the subjects.**
- o **For any doubts you may contact the concerned teacher through the phone number given at the end of the holiday assignment.**

- All the Homework will be marked and assessed, so it is COMPULSORY, to complete the homework given in all the subjects.

It's SUMMER TIME again. Time for strengthening family bond, tying threads of the family tree, sharing joys and sorrows, having a good time together. Do shower your love and care on people you meet and get loads of blessings in return.

Take good care of your health and hygiene. Avoid heavy and oily food and increase intake of fresh fruits and water to keep yourself well hydrated and energetic. Use Holiday Homework as an opportunity to spend quality time together. Let your child take the lead and use his/ her imagination, creativity and knowledge to do the assigned task. The role of the parent is to be a facilitator and guide to steer the child in the right direction. He/ She will find his own destination. Original work of students will receive greater recognition and appreciation.

ENGLISH:

1. A. Watch the movie "Dasvi" and write a review on it. Express your opinions and support your criticism in a detailed manner. (Hint: Movie name- Cast- Director- Plot- Climax- Conclusion)

   Or

   B. You are the editor-in-charge of your school newsletter. Write a detailed Article, stating the activities recently conducted in your school. Mention any two activities in detail along with the pictures. (Hint-Title, activity name, date, theme, program details)

   Max. pages : 2 pages on each topic
   Where to do : English Notebook

2. Design a Brochure on the famous "Valmiki National Park, in Champaran, Bihar". State the information and various kinds of flora and fauna it has. Present the information using facts and pictures to bring out creativity. You can design either digital or manual brochure on A4size sheet.

   Max. pages : 4
   Where to do : A4 size sheets attached in white milky file

3. Prepare a vocabulary list by selecting five words each from the genre given below-
    - Travel.   - Sports.   - Plantation.   -Baking.

   Write down a minimum of any ten words from the list, with meaning to enhance the vocabulary.

   Where to do :English Notebook

WORKSHEET

A. Reading comprehension

Bihar's antiquity is evident from its name, which is derived from the ancient word "VIHARA" (monastery). It is indeed a land of monasteries. Hindu, Buddhist, Jain, Muslim and Sikh shrines abound in this ancient land where India's first major empires rose and fell. Where the ruins of the worlds' earliest university slumbers in the void of time. The passage of Ganga, flowing wide and deep enrich the plains of Bihar before distributing in Bengal's deltoid zone. Among all Indian states, Bihar is the one most intimately linked to the Buddha's life, resulting in a trail of pilgrimages which have come to be known as the Buddhist circuit. The Buddhist trail begins at the capital city, Patna, where a noteworthy museum contains a collection of Hindu and Buddhist sculptures as well as a terracotta urn said to contain the ashes of Lord Buddha.

The Buddha spent five years at Rajgir after having attained enlightenment, and many of the remains at Rajgir commemorate various incidents related to life of Buddha, the hill of Gridhrakuta being perhaps the most important, as this is where the Buddha delivered most of his sermons. Bodhgaya is the spot where Lord Buddha attained enlightenment, with the Mahabodhi Temple marking the precise location.

A monastic university flourished in Bihar (Nalanda) from the 5th to the 11th century. It is said to have contained nine million books, with 2,000 teachers to impart knowledge to 10,000 students who came from all over the Buddhist world. Lord Buddha himself taught here and Hieun Tsang, the 7th century Chinese traveler, was a student. Ongoing excavations have uncovered temples, monasteries and lecture halls. Rajgir, 'the royal palace', 12 km south, was the venue for the first Buddhist Council.

This landlocked state of Bihar is surrounded by Nepal, Bengal, Orissa, Madhya Pradesh, Uttar Pradesh and comprises four cultural regions-Bhojpur, Mithila and Magadha and Chotanagpur. Rivers Kosi and Gandak from the north and Sone from the south join the Ganga. In the fertile plains, rice, sugarcane, oilseeds, gram, maize, jute, barley and wheat are cultivated.

1. State Bihar's rich cultural diversity.
2. Where did the buddhist trail begin?
3. When did the monastic university flourish, and How?
4. What are the major crops cultivated in Bihar?

5. _____ is the Bihar's ancient name.
6. Bihar is linked with_____ life.

7.Write the antonym (opposite) of
 a.related. b. join.   c. fertile. d. land. e.major

8.Buddha spent five years in
a. Gridhrakuta.   b.Rajgir.   c. Vihara.   d.Nalanda

9. The ongoing excavation has uncovered
a. temples. b.lecture halls. c.museum   d.both a and b

10. Give the an appropriate title to the comprehension.

B. Creation with proverb

Describe any one of the following proverb in your own words in your English Notebook. You should also add pictures to make it creative.

-The pen is mightier than sword.   -No pain No gain   - All's well that end's well

C. Fill in the blanks using suitable modals

1. I don′t think that I ……………………… pass the test. (will / would / can)

2. If you improve your communication skills, you …………………………. get a better job. (will / would / could

3. If we don′t get the money what …………………………. we do? (will / would / could)

4. You ………………………….. have locked the door before going out. (should / would / can)

5. He ………………………….. not come unless you invite him. (will / would / could)

6. …………………………. we depend on them? (Can / Will / Would)

7. …………………………. I do the washing up? (Shall / Should / Would)

8. ……………………………… you open the window? (Can / Shall / Should)

9. Where ……………………………. they have gone? (should / could / would)

10. If you had run faster, you ………………………….. have won. (will / could / should)

D. Fill in the blanks with appropriate Tenses

1. It is time you ………………….. a doctor. (consult / consults / consulted)

2. If I had enough money, I ……………………… buy a car. (can / could)

3. If you started at eight o′clock, you ………………………. be in Mumbai by lunch-time. (will / would)

4. I wish I …………………….. taller. (was / were / am)

5. Don′t call me. I would rather you ……………………… me an email. (send / sent)

6. After he ………………………writing his book, he went to Greece for a month. (finished / had finished / has finished)

7. As soon as I put the phone down, it ……………………………. ringing again. (start / started / had started)

8. I ……………………… music lessons twice a week. (have / had)

9. I ………………………… a lot of movies these days. (am watching / have been watching / watched)

10. That is the sixth chocolate you ……………………………. today. (ate / have eaten / had eaten)

Where to do : English Notebook

HINDI:

बिहार राज्य का ऐतिहासिक, धार्मिक व राजनीतिक महत्व बताते हुए सचित्र वर्णन कीजिए।

अभ्यास कार्य

प्रश्न 1) निम्नलिखित का भाव स्पष्ट कीजिए ।

क) बिरह भुवंगम तन बसै, मंत्र न लागै कोई।

ख) कस्तूरी कुंडली बसै, म्रग ढूंढैं बन मांहि।

प्रश्न 2) ईश्वर कण कण में व्याप्त है पर हम उसे क्यों नहीं देख पाते

प्रश्न 3) निम्नलिखित मुहावरों का वाक्य में प्रयोग कीजिए ।

क) आड़े हाथों लेना

ख) अंधे के हाथ बटेर लगना

ग) लोहे के चने चबाना

प्रश्न 4) अपने आने वाली परीक्षा की तैयारी के विषय में अपने मित्र से सलाह मांगने के हेतु एक पत्र लिखिए ।

प्रश्न 5) मेरे जीवन का लक्ष्य विषय पर 150 से 175 शब्दों में अनुच्छेद लिखिए ।

(संकेत बिंदु: जीवन में लक्ष्य क्यों?; मेरा लक्ष्य कारण; लक्ष्य प्राप्ति के प्रयास)

MATHEMATICS:

Q 1. Prepare a mind map of:

a. Real numbers
b. Polynomials
c. Linear equation in two variables

Q 2. Crossword puzzle using Mathematical terms.

Q 3. Activity: Stained glass window.

Represent 12 Linear Equations on a graph paper.

Use coloured pencils or crayons to colour in section to create your stained-glass window.

Q 4. Prepare a project report about Indian state Bihar. The report should comprise following details -

1. Location on the political map of India (Highlights using colour).

Draw a table to compare following information about Bihar with Madhya Pradesh, Gujarat, Kerala, Himachal Pradesh and West Bengal.

2. Areas

3. Per capita income of the states

4. Population of the states

5. Draw three bar graphs depicting Area, Per capita income and population of Bihar with Madhya Pradesh, Gujarat, Kerala, Himachal Pradesh and West Bengal.

WORKSHEET

Chapter 1: Real Numbers

Q.1. Express each number as a product of its prime factors:

(i) 140

(ii) 156

(iii) 3825

Q.2. Prove that $3 + 2\sqrt{5}$ is irrational.

Q.3. Find HCF and LCM of 404 and 96 and verify that HCF × LCM = Product of the two given numbers.

Q.4. Write the following rational numbers in decimal form:

(i) 42/100

(ii) 27/8

(iii) 1/5

(iv) 2/13

Q.5. Mention whether the following numbers are rational or irrational:

(i) $(\sqrt{2} + 2)$

(ii) $(2 - \sqrt{2})$ x $(2 + \sqrt{2})$

(iii) $(\sqrt{2} + \sqrt{3})2$

(iv) $6/3\sqrt{2}$

Q.6. Two tankers contain 850 litres and 680 litres of petrol. Find the maximum capacity of a container which can measure the petrol of each tanker in the exact number of times.

Q.7. Three alarm clocks ring at intervals of 4, 12 and 20 minutes respectively. If they start ringing together, after how much time will they next ring together?

Chapter 2 : Polynomials

Q.1. Find the value of "p" from the polynomial $x2 + 3x + p$, if one of the zeroes of the polynomial is 2. Q.2. Compute the zeroes of the polynomial $4x2 – 4x – 8$. Also, establish a relationship between the zeroes and coefficients.

Q.3. Find the quadratic polynomial if its zeroes are 0, $\sqrt{5}$.

Q.4. How many zeros does the polynomial $(x - 3)^2 - 4$ have? Also, find its zeroes.

Q.5. If the zeroes of the polynomial $x^3 - 3x^2 + x + 1$ are $a - b, a, a + b$, then find the value of a and b. Q.6. Verify that $3, -1, -1/3$ are the zeroes of the cubic polynomial $p(x) = 3x^3 - 5x^2 - 11x - 3$, and then verify the relationship between the zeroes and the coefficients.

Q.7. Find a quadratic polynomial, the sum and product of whose zeroes are $\sqrt{2}$ and $-3/2$, respectively. Also find its zeroes.

Q.8. If the sum of the zeroes of the polynomial $p(x) = (k^2 - 14) x^2 - 2x - 12$ is 1, then find the value of k.

Q.9. If α and β are the zeroes of a polynomial such that $\alpha + \beta = -6$ and $\alpha\beta = 5$, then find the polynomial.

Q.10. If the zeroes of the polynomial $x^2 + px + q$ are double in value to the zeroes of $2x^2 - 5x - 3$, find the value of p and q.

Q.11. Find the zeroes of the quadratic polynomial $6x^2 - 3 - 7x$ and verify the relationship between the zeroes and the coefficients of the polynomial.

Q.12. If $p(x) = x^3 - 2x^2 + kx + 5$ is divided by $(x - 2)$, the remainder is 11. Find k. Hence find all the zeroes of $x^3 + kx^2 + 3x + 1$.

Chapter 3 : Pair of Linear Equations in two variables

Q.1. If $ax + by = a^2 - b^2$ and $bx + ay = 0$, find the value of $(x + y)$.

Q.2. For what value of k, the pair of equations $4x - 3y = 9, 2x + ky = 11$ has no solution?

Q.3. Find whether the following pair of linear equations is consistent or inconsistent: $3x + 2y = 8$ $6x - 4y = 9$

Q.4. Draw the graph of $2y = 4x - 6$; $2x = y + 3$ and determine whether this system of linear equations has a unique solution or not.

Q.5. Solve the following pair of linear equations for x and y: $141x + 93y = 189$; $93x + 141y = 45$

Q.6. Solve by elimination:

$3x = y + 5$

$5x - y = 11$

Q.7. Find the two numbers whose sum is 75 and difference is 15.

Q.8. Find the value of a and p for which the following pair of linear equations has infinite number of solutions: $2x + 3y = 7$; $\alpha x + (\alpha + \beta)y = 28$

Q.9. A man earns ₹600 per month more than his wife. One-tenth of the man's salary and l/6th of the wife's salary amount to ₹1,500, which is saved every month. Find their incomes.

Q.10. A two digit number is seven times the sum of its digits. The number formed by reversing the digits is 18 less than the given number. Find the given number.

Q.11. The owner of a taxi company decides to run all the taxis on CNG fuel instead of petrol/diesel. The taxi charges in city comprises of fixed charges together with the charge for the distance covered. For a journey of 12 km, the charge paid is 789 and for journey of 20 km, the charge paid is ₹145. What will a person have to pay for travelling a distance of 30 km?

Q.12. Amit bought two pencils and three chocolates for ₹11 and Sumeet bought one pencil and two chocolates for ₹7. Represent this situation in the form of a pair of linear equations. Find the price of one pencil and that of one chocolate graphically.

Q.13. $7x - 5y - 4 = 0$ is given. Write another linear equation, so that the lines represented by the pair are: (i) intersecting (ii) coincident (iii) parallel

Q.14. Find the zeroes of the quadratic polynomial $7y^2 - (11/3)y - (2/3)$ and verify the relationship between the zeroes and the coefficients.

SCIENCE:

WORKSHEET:

Q.1 MCQs

1. Which of the following are energy foods?
(a) Carbohydrates and fats
(b) Proteins and mineral salts
(c) Vitamins and minerals
(d) Water and roughage

2. In which mode of nutrition an organism de-rives its food from the body of another living organism without killing it?
(a) Saprotrophic nutrition
(b) Parasitic nutrition
(c) Holozoic nutrition
(d) Autotrophic nutrition

3. The mode of nutrition found in fungi is:
(a) Parasitic nutrition
(b) Holozoic nutrition
(c) Autotrophic nutrition
(d) Saprotrophic nutrition

4. Roots of the plants absorb water from the soil through the process of:
(a) diffusion
(b) transpiration
(c) osmosis
(d) None of these
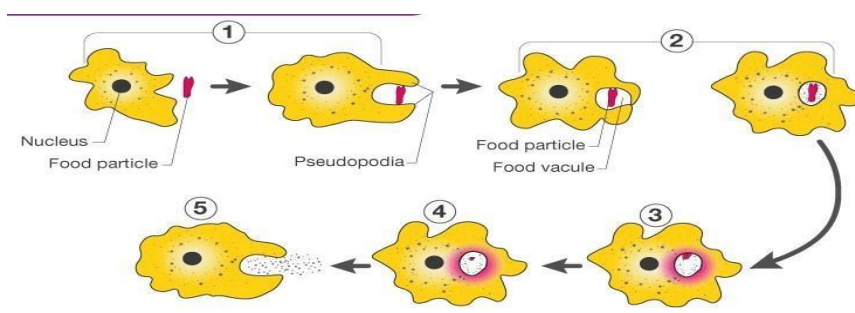
5. The site of photosynthesis in the cells of a leaf is
(a) chloroplast
(b) mitochondria
(c) cytoplasm
(d) protoplasm

Q.2 Fill in the blanks.
1._____ and _____ are the two modes of nutrition.

2. The finger like projections, _____ are present in small intestine for rapid absorption   of food.
3. _____ gas is used in photosynthesis.
4. Hardest substance in human body is_____.
5. Trypsin enzyme is present in _____ juice.
6. _____ is the non-enzymatic digestive juice in human.
7. _____ is the largest gland in human body.
8. _____pairs of salivary glands are present in man.
9. _____pigment can absorb solar energy in plants.
10. _____ mode of nutrition is exhibited by fungi.
11. _____ gas is produced in photosynthesis.
12. Roots of the plants absorb water from the soil through the process of _____.
13. _____ is the first enzyme to mix with food in the digestive tract.
14. Lipase act on _____.
15. In amoeba, food is digested in the _____.
16. The contraction and expansion movement of walls of the food pipe is called _____.
17. The process in which breaking of fat globules into fat droplets by the bile juice is called _____.
18. _____ is the raw material from which oxygen is released in photosynthesis.
19. Carbohydrates in the plants are stored in the form of _____.
20. The part of the digestive system where no digestion takes place is _____.

Q. 3 Answer the following questions:
1. Define photosynthesis and give chemical reactions.
2. How do plants obtain the factors essential for photosynthesis?
3. Explain the events of photosynthesis.
4. Identify and name the steps of the process, given in the diagram.

5. Describe the functions of digestive juices in human digestive system.
6. Enlist the significance of photosynthesis.
7. What is the role of HCl acid in our stomach?
8. Mention the function of saliva in the digestion of food.

9. Leaves of a healthy potted plant were coated with Vaseline. Will this plant remain healthy for long? Give reasons for your answer.
10. Write a note dental 'caries'.

Q.4 Differentiate between the following:
1. Autotrophic nutrition and heterotrophic nutrition
2. Ingestion and Egestion

Q.5 Draw well labelled diagrams of the following:
1. Cross section of a leaf
2. Human digestive system
3. Stomatal apparatus

CHEMISTRY AND PHYSICS:

Q 1. Photography is a part of day-to-day life in the modern scenario. We click selfies and photographs to mark our moments. Photography has scientific techniques involved with it. Collect photographs related to the state of Bihar.

Note the chemical and chemical reactions involved in black and white photography which was the basic technique behind today's photographic world. Research on the working phenomena of cameras based on spherical lenses and related concepts like power of lens, aperture of lens. Document it in about 200-300 words.

Q 2. Write 5 different reactions involving *acids and bases* that you observe in your day-to-day life.

2. We use many chemicals in our day today life. Name any five chemicals that are used in our households.

SOCIAL SCIENCE:

WORKSHEET

Q1. Solve the following worksheet in your classwork notebook.
  I.   Multiple choice questions:
    a. When did the French Revolution start?
        i.   1789
        ii.   1879
        iii. 1780
        iv.   1769
    b. What emphasised the notion of a united community enjoying equal rights under a constitution?
        i.   la patrie (the fatherland) and le citoyen (the citizen)
        ii.   French people in common
        iii. French Flag
        iv.   Idea of one nation state
    c. What type of rule was carried out in France during Napoleon's time?
        i.   Federal rule
        ii.   Democracy
        iii. Monarchy
        iv.   Republic
    d. What was the Civil Code of 1804 also known as?
        i.   the Administrative Code
        ii.   Code of Justice
        iii. the Napoleonic Code
        iv.   the National Code
    e. What is Suffrage?
        i.   Right to property
        ii.   Right to Justice
        iii. Right to vote
        iv.   Right to complain

II. Explain the significance of portraying nations as female figures by the European artist of 18th and 19th century.
III. What are resources? Write down the classification of resources thoroughly.
IV. What is the difference between Khadar and Bhangar soil?
V. What is soil erosion?
VI. Explain the major types of soil erosion prevailing in India?
VII. Explain the major forms of power sharing in modern democracies.
VIII. Mention any three demands of Sri Lankan Tamils.
IX. Explain how power is shared among different organs of the government.
X. Suggest a prudential reason for why power sharing is good for democracy?
XI. On the outline map of India, mark and label all major types of soils found in India.
XII. Read the extract given below and answer the following questions:

The Belgian leaders recognised the existence of regional differences and cultural diversities. Between 1970 and 1993, they amended their constitution four times so as to work out an arrangement that would enable everyone to live together within the same country. The arrangement they worked out is different from any other country and is very innovative. Here are some of the elements of the Belgian model:

- Constitution prescribes that the number of Dutch and French-speaking ministers shall be equal in the central government. Some special laws require the support of the majority of members from each linguistic group.
- Many powers of the central government have been given to state governments of the two regions of the country. The state governments are not subordinate to the Central Government.
- Brussels has a separate government in which both the communities have equal representation. The French-speaking people accepted equal representation in Brussels because the Dutch-speaking community has accepted equal representation in the Central Government.
- Apart from the Central and the State Government, there is a third kind of government. This 'community government' is elected by people belonging to one language community – Dutch, French and German-speaking – no matter where they live. This government has the power regarding cultural, educational and language-related issues.

a. _____ and _____ dealt with the question of power-sharing differently.
   i. India, Srilankan
   ii. Belgium, Sri Lanka
   iii. Wallonia, Brussels
   iv. Flemish, Wallonia
b. Which of the following is not the element of "Belgian model"?
   i. Equal number of ministers for both the groups
   ii. Setting up of Community Government
   iii. More power to the central government
   iv. Equal representation at the state and central level

c. "Apart from the Central and the State Government, there is a third kind of government". Which of the following is incorrect with respect to this?
   i. The unique government is Community Government
   ii. A single social group is given powers to handle community-related affairs
   iii. Elected by people belonging to Dutch, French and German-speaking
   iv. Power regarding cultural, educational and language-related issues

d. Which of the following title best describes the given passage?
   i. The ethnic composition of Belgium
   ii. Accommodation in Sri Lanka
   iii. Accommodation in Belgium
   iv. The ethnic composition of Sri Lanka

Q 2. Create a Campaign poster to create awareness on Gender issues faced in the country. Write an article to mention the solutions that can be taken to solve gender issue.

Q 3. Make a project file on social diversity of Bihar, which should include the following points:
   a. Acknowledgement
   b. About Bihar
   c. Bihar's linguistic groups
   d. Bihar's major political parties
   e. Crops grown in Bihar
   f. Minerals found in Bihar
   g. Topography of Bihar
   h. Land distribution in Bihar
   i. Type of soil in Bihar
   j. Conclusion
   k. Bibliography

*Note: Worksheet to be done in any Classwork Notebook.

COMPUTER:

Design a webpage displaying any 4 traditional authentic food items of Bihar. Use the following points to design the same:

1. Brief description of food items.

2. Recipe in small paragraph

3. Nutritional value of food.

(Use <HTML>, <HEAD>, <TITLE>, <BODY>, <H1>.......<H4>, <P> tags to create the webpage)

Note: Write HTML code in Notepad only.

....

TEACHER'S DETAILS:

Sr. No.	Teacher's name	Contact number
1	Apoorva Wankhede	6265691172
2	Neelam Surana	6265684773
3	Payal Aalekar Rode	9343641313
4	Vaishali Goyal	9303900183
5	Parul Agrawal	9343641312