

(2ND SHIFT)

AUTUMN BREAK

HOLIDAY HOME WORK-2024-25

CLASS: I

<p style="text-align: center;">ENGLISH</p>	<p>1. Write one page English writing daily. 2. Read one page of your text book daily 3. Write 10 action words and learn them. 4. Write 5 lines and learn them. a. My motherb My school</p> <p>5. Practice the following sentences daily.</p> <p>May I come in? May I go to toilet ?I want to ask . I have completed my work .I have a doubt . I am not well .I am sorry . Will you please share your pencil with me ?I am on my place . It is my pleasure . My name is..... I am in line .I am writing. I am slow in writing .I am reading . I have not completed the work .Shall I start to read ? May I pack my bag ?Is it correct ? We are not talking .I don't have pencil .I need your help . I am in first class .This is my place. Please share your pencil May I go to fill my water bottle?</p>
<p style="text-align: center;">HINDI</p>	<p>1) अ स e त क व र व ळय ळन ल ख व य द कर ।</p> <p>2) त द न म ळ ओ व र न स ब न न व ल श द क ळ अ ळस कर ।</p> <p>3) त द न प ळ ल इ न स ळ ल ळ ल ख न व प द न क ळ अ ळस कर ।</p> <p>4) एक ऐ 4 स इ ज श ट पर व ळ भ ळन क र क स ळ क व न कर ल ळ</p> <p>5) प ठ 8,9 क ळ प द कर आ ळ</p>

MATHS	1) Write counting from 1 to 100. 2) Write reverse counting from 100 to 1. 3) Write and learn number name one to twenty. 4) Make cut-out or charts of any five mathematical shapes and write their names. 5) Learn number names in hindi from 1 to 100.
EVS	I. Make a mask of any one domestic animal. II. Make a chart of animal and their homes. III. Draw a plant and label parts of the plant.
	Note- 1. Do all these work in a separate copy instead of class subject copy. 2. Prepare any one toy using waste material.

CLASS: II

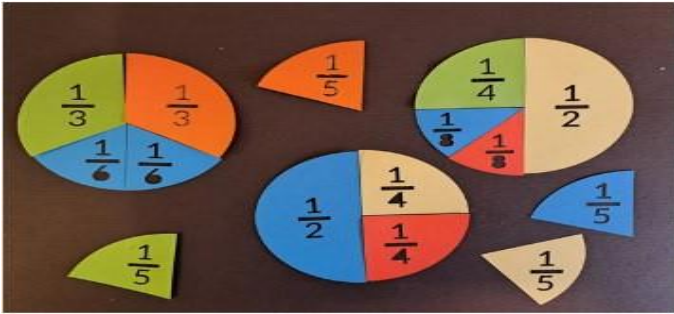
SUBJECT	HOME WORK
ENGLISH	<ol style="list-style-type: none">1. Paste pictures of 10 birds in your copy & write their names.2. Learn the poem "The Crow" with rhythm and action.3. Write 10 words with "pl" sound and 10 words with "bl" sound.4. Make sentences:-<ol style="list-style-type: none">a) Colourfulb) Beautifulc) Peacockd) Feathere) Love
HINDI	<ol style="list-style-type: none">1. दो बार वणमाला िलखो व याद करो।2. दो अ र वाले दस और तीन अ र वाले श िलखो।3. दस पि योंक नाम िलखो और िकसी एक प ी का िच बनाओ।4. दस पशुओंक नाम िलखो और िकसी एक पशु का िच बनाओ।5. पाँच "कारेके बीज एकि त करके उ ाकाँपी ष िचपकाओ और उनके नाम िलखो।
MATHS	<ol style="list-style-type: none">1. Learn the counting from 1 to 100.2. Learn the number name from 1 to 100.3. Make a 'toy' by using different shapes, sticks etc.4. Make a drawing by using different patterns... i.e. leaves, lines ,pipes etc.5. click on the link below and solve the live worksheets. https://www.liveworksheets.com/w/en/math/1013861 - https://www.liveworksheets.com/w/en/math/2019358
EVS	Project Work

E.V.S	<ol style="list-style-type: none">1. Make two small dustbin using Thick paper. One dustbin in green colour and one is Blue.2. Prepare a leaf painting in your EVs notebook3. paste or Draw any five pictures related to health and hygiene4. Write five lines on your favourite game and paste picture of it.
-------	--

CLASS: III

SUBJECT	HOME WORK
ENGLISH	<ol style="list-style-type: none">1. Collect pictures of traffic rules and paste on A4 sheet and name them.2. Collect the duplicate stamps chart of<ol style="list-style-type: none">(1) 50 paisa(2) 1 rupee(3) 2 rupee(4) 5 rupee and letters.3. Collect the pictures of wild ANIMALS and paste them on A4 sheet with names.4. Write the TRAINS and PUPPY AND I poems on A4 sheet separately.
MATHS	<ol style="list-style-type: none">1. Number- Names – 100 to 2002. Tables 2 to 10 (read and write)3. Do any 10 Additions (2digits-5 QUESTIONS , 3digits-5 QUESTIONS)4. Do any 10 Subtractions (2digits-5 QUESTIONS, 3digits-5 QUESTIONS)5. Draw different shapes (RECTANGLE, SQUARE, CIRCLE, TRIANGLE, CUBE, and CUBOID). Note: Do all the works on A4 sheets only.
EVS	<ol style="list-style-type: none">1. Draw any 5 pictures of fruits and 5 pictures of vegetables.2. Collect and paste the leaves of medicinal plants and write their names.3. Paste the pictures of five players and write their names and related games. Write 5 sentences about any one player.4. Make a mask of a fruit. Note: Do all the works on A4 sheets only.
HINDI	<ol style="list-style-type: none">१. कवता र सा कशी म से तुक वाले श द नाम वाले श द और काम वाल श द छांटकर लिख ।२. उ और ऊ, ओ और औ ,ए और ऐ से 5-5 श द लिख ।३. आपने दशहरे का)योहार कै से मनाया इस पर 5 वारय लिख और साथ हक दशहरे का चित्र बनाकर रंग भर ।

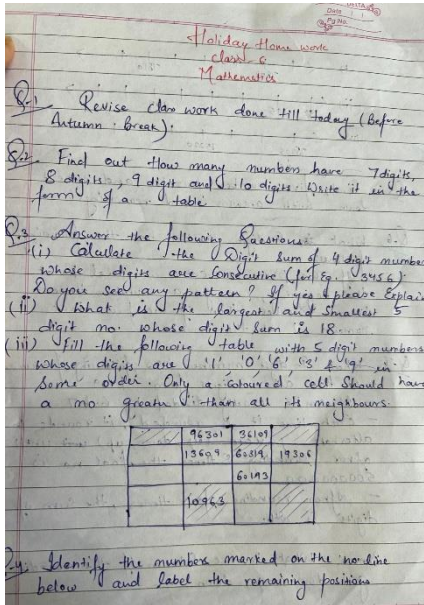
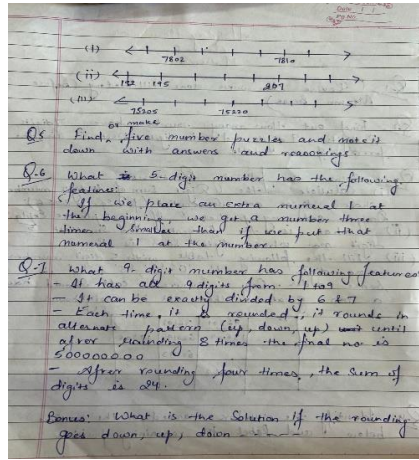
CLASS: IV

SUBJECT	HOME WORK
ENGLISH	<ol style="list-style-type: none"> 1. Write Hiawatha poem in separate A4 sheets. 2. Collect the names of countries and capitals on a4 sheet. 3. Write the names of the states of India and their languages. (A4 SHEET) 4. Write one word from the newspaper daily with meaning and use in sentence also. (A4SHEET)
HINDI	<p>□ भारत को एक हिन्दू नरम सहित विपक्षीओ जसरो क्य पशु, रों क्य पं, फल, सज्ज, मठई, फल, झड़, वपयं, पड़, नदक, रों क्य गत आदर। (A4 SHEET)</p> <p>□ पंम हवर, कअथ व विओ सहित रवल बनए। (A4 SHEET)</p> <p>□ हिंदूक सम विरप ओक 4पंम 4य हठल इन कि संभंकर आउर पर विपक्षीकर लओ।</p> <p>□ 9दि दिन एक पं <पं=प>तक मस देख कर ऊचं बनि मपह।</p> <p>□ पठ १ >वत ०क 4 ओर कं पढ़व कठन शद, कं कतव मरख कत कर।</p>
MATHS	<ol style="list-style-type: none"> 1). Draw 4 circles having radii 3cm, 4cm, 5cm, 6cm respectively (A4SHEET) 2). Draw any 5 shapes. Divide them into two equal parts and color anyone part of them. (A4 SHEET) 3). learn and write multiplication table 2 to 20. (A4 SHEET) 4). Make a fraction disk. 
E.V.S	<ol style="list-style-type: none"> 1). Draw any 10 pictures of fruits and vegetables on A4 sheet 2). Draw the pictures of your favorite fruits and write sentences about them. (A4 SHEET) 3). Project Work Make Any working model or posters on the following themes: <ol style="list-style-type: none"> A. SAVE WATER (ROLL NO 1-10) B. SAY NO TO SINGLE USE PLASTIC (ROLL NO 11-20) C. REDUCE WASTE (ROLL NO 21-30) D. ADOPT SUSTAINABLE FOOD SYSTEM (ROLL NO 31-40)
	Note: Do all the work on A4 sheets only.

CLASS: V

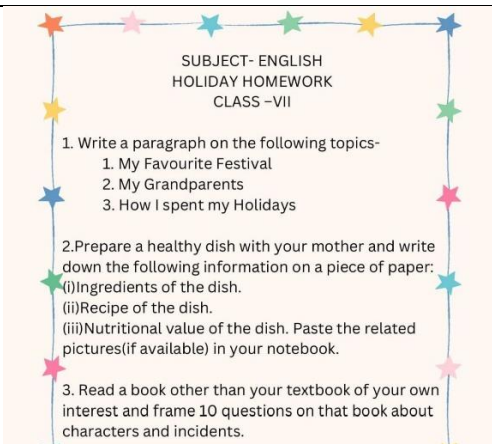
SUBJECT	HOME WORK
ENGLISH	<ol style="list-style-type: none">1. Write any two paragraphs from the lesson “ the talkative barber” and frame your own questions and answers2. Refer the dictionary and write 20 words with their meanings.3. Collect and paste any two articles from the newspaper or magazines on wild animals.
HINDI	<ol style="list-style-type: none">१) तिदिन एक सुलेख करे।२) एक दिन क बादशाहत पाठ पढ़े व नए श द लिख।३) अपने दय भोजन के बारे म पाँच वारय लिखो।४) आप भव-य म रया बनना चाहते ह, विषय पर पाँच वारय लिख।
MATHS	<ol style="list-style-type: none">1. Make any two 3D shapes.2. Draw a map from your house to school.3. Measure the length and width of a 10 rupees note , 50 rupees note, 50 rupees note and 50 rupees note.4. Make any five sketches of open and closed boxes.
EVS	<ol style="list-style-type: none">1. Make a list of some state highways and national highways which are familiar to you?2. Paste any 10 road signals.3. Write the five slogans written on the petrol pump (in Hindi or English). Make the poster.4. What are energy sources? Write the report on Solar Energy.5. Collect the news reports published on ‘Fuel’ or ‘Petroleum’. Cut these reports and make the collage from it.
	Note: Do all the works on A4 sheets only.

CLASS: VI

SUBJECT	HOME WORK												
ENGLISH	<p>To be done by all in a separate file.</p> <ol style="list-style-type: none"> 1. Read newspaper daily and learn the spelling of difficult words. 2. Collection of tongue twister (10 only). 3. Make a beautiful birthday card for your mother.. 4. Know more- interview your parents (5-10) questions inquiring their hobbies, childhood etc. 5. Draw a flow chart of the following grammar topics- <ol style="list-style-type: none"> a) Noun b) Pronoun c) Adjective 6. Prepare MDP (Term-2) in a file.. 												
HINDI	<p>प्रश्न 1. पांच पेज सुलेख लिखे।</p> <p>प्रश्न 2. प्रतिदिन हिंदी पुस्तक का एक पाठ पढ़ें।</p> <p>प्रश्न 3. किसी एक विषय पर अनुच्छेद लिखो:- अनुशासन का महत्व 2. मेरा विद्यालय</p> <p>प्रश्न 4: समाचार-पत्र का प्रतिदिन एक लेख पढ़ो और उसमें आए कठिन शब्दों को अर्थ सहित याद करो।</p> <p>प्रश्न :5 घर पर आवश्यक कार्य होने पर दो दिन की छुट्टी के लिए अपने विद्यालय के प्राचार्य को प्रार्थना पत्र लिखें।</p> <p>प्रश्न 6 किन्हीं दस-दस शब्दों के विलोम और वचन बदलों।</p>												
MATHS	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;">  <p><i>Holiday Home work</i> <i>Class 6</i> <i>Mathematics</i></p> <p>Q1. Revise class work done till today (before Autumn Break).</p> <p>Q2. Find out how many numbers have 7 digits, 8 digits, 9 digits and 10 digits. Write it in the form of a table.</p> <p>Q3. Answer the following Questions: (i) Calculate the sum of 4 digit numbers whose digits are consecutive (for eg. 1234). Do you see any pattern? If yes please Explain. (ii) What is the largest and smallest 5 digit no. whose digit sum is 18. (iii) Fill the following table with 5 digit numbers whose digits are 1, 0, 6, 8 & 9 in some order. Only a 'taboo' cell should have a no. greater than all its neighbours.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tbody> <tr> <td style="border: 2px solid black;">96301</td> <td style="border: 2px solid black;">91107</td> <td></td> </tr> <tr> <td style="border: 2px solid black;">13609</td> <td style="border: 2px solid black;">65514</td> <td style="border: 2px solid black;">19306</td> </tr> <tr> <td></td> <td style="border: 2px solid black;">61193</td> <td></td> </tr> <tr> <td></td> <td style="border: 2px solid black;">10963</td> <td></td> </tr> </tbody> </table> <p>Q4. Identify the number marked on the number below and label the remaining positions.</p> </div> <div style="width: 48%;">  <p>(i) $\left\langle \begin{array}{c c c c c} & 1 & & & \\ \hline & 7802 & & & \\ \hline \end{array} \right\rangle$</p> <p>(ii) $\left\langle \begin{array}{c c c c c} & 1 & 2 & 1 & 0 \\ \hline & 1500 & & & 001 \\ \hline \end{array} \right\rangle$</p> <p>(iii) $\left\langle \begin{array}{c c c c c} & & & & \\ \hline & 1500 & & & 1000 \\ \hline \end{array} \right\rangle$</p> <p>Q5. Find a five number puzzle and solve it down with answers and workings.</p> <p>Q6. What is a 5 digit number has the following features: - It has 1 in the ten's place and extra numeral 1 at the beginning. - It can be exactly divided by 6 & 7. - Each time, it is rounded, it rounds to atleast 10000 (eg. down, up) and next after rounding 8 times, the final no is 50000000. - After rounding four times, the sum of digits is 24.</p> <p>Bonus: What is the solution if the rounding goes down, up, down...</p> </div> </div> <p style="text-align: center;">Maths Holiday Homework, to be done on A4 sheets.</p>	96301	91107		13609	65514	19306		61193			10963	
96301	91107												
13609	65514	19306											
	61193												
	10963												

<p>SCIENCE</p>	<ol style="list-style-type: none"> 1. Make a working model for SCIENCE EXHIBITION and School innovation marathon. 2. Collect information related to the use of magnets in the field of medicine. 3. Make a paper scale with proper labelling. 4. What do you understand by reference point? 5. Write a story with the help of these world-DELHI, TRIP, KILOMETERS, HILL STATIONS, DISTANCE, HOLIDAY. 6. Prepare second term MDP. (TOPIC- Importance Of AI) <p>Q-1 What is the full form of AI?</p> <p>Q-2 AI is good or bad ? Comment on it.</p>
<p>SANSKRIT</p>	<ol style="list-style-type: none"> 1) प्रतिज्ञा (संस्कृत में) लिखें व याद करे 2) 5 श्लोक स्वेच्छा से अर्थ सहित लिखे व यादकरे । 3) पाठ्यपुस्तक पेज नं १३ परियोजना कार्यम् जैसे- उपरि (Up) (चित्र भी बनाये) 4) 10 रंगो (वर्णो)के नाम संस्कृत मे लिखे जैसे- 5) पीत वर्णम् (पीला रंग) (रंग के अनुसार कागज़ भी चिपकाये) 6) संस्कृत में निम्न समय लिखें (घड़ी भी बनाये) <p>7.15 9:00 4:30 9:15 8:45</p> <ol style="list-style-type: none"> 7) पेज न. ११-ति, तः अन्ति.... अपनी copy मे लिखे व याद करे 8) 1-50 तक संस्कृत मे गिनती लिखे जैसे - (१-एकम्) 9) बुद्धिः सर्वार्थ साधिका के शब्दार्थ लिये व याद करें

CLASS: VII

SUBJECT	HOME WORK
ENGLISH	 <p style="text-align: center;">SUBJECT- ENGLISH HOLIDAY HOMEWORK CLASS -VII</p> <ol style="list-style-type: none"> 1. Write a paragraph on the following topics- <ol style="list-style-type: none"> 1. My Favourite Festival 2. My Grandparents 3. How I spent my Holidays 2. Prepare a healthy dish with your mother and write down the following information on a piece of paper: <ol style="list-style-type: none"> (i) Ingredients of the dish. (ii) Recipe of the dish. (iii) Nutritional value of the dish. Paste the related pictures (if available) in your notebook. 3. Read a book other than your textbook of your own interest and frame 10 questions on that book about characters and incidents.
HINDI	<p>प्रश्न 1. पांच पेज सुलेख लिखे।</p> <p>प्रश्न 2. भारत की खोज पाठ युगों का दौर पढ़ो और स्वयं से 10 प्रश्नोत्तर लिखो।</p> <p>प्रश्न 3. किसी एक विषय पर अनुच्छेद लिखो:- अनुशासन का महत्व 2. जीवन में खेलों का महत्व</p> <p>प्रश्न 4: समाचार-पत्र का प्रतिदिन एक लेख पढ़ो और उसमें आए कठिन शब्दों को अर्थ सहित याद करो।</p> <p>प्रश्न :5 हिंदी के अर्धवार्षिक परीक्षा के सभी प्रश्नों को कॉपी में हल करें।</p>
MATHS	<p>CHAPTER: COMPAIRING QUANTITIES</p> <p>The ratio of 6 Kg to 400 gram is</p> <p>10:1 15:1 12:1 6:1</p> <p>The cost of 7 Kg potatoes is Rs.42. How many Kg of potatoes can be purchased for Rs. 96?</p> <p>10 Kg 12 Kg 15 Kg 16 Kg</p> <p>0.1 as percent is</p> <p>10% 1% 10% 0.1%</p> <p>Out of 40 children in a class, 10 are boys and the rest are girls. What is the percent of girls?</p> <p>30% 60% 75% 50%</p> <p>The marks in a test decreased from 40 to 30. The percentage of decrease is</p> <p>10% 20% 25% 40%</p> <p>9 is 25% of what number?</p>

	<p>Find 15% of 250 20% of 2500 75% of 1 Kg Divide 15 sweets among Manu and Sonu so that they get 20% and 80% of them respectively. The population of a city decreased from 25000 to 24500. Find the percentage of decrease. Saksham sells a washing machine for Rs.13500. he loses 20% in the bargain. What was the price at which he bought it?</p> <p>CHAPTER: RATIONAL NUMBERS</p> <p>If $\frac{x}{3} = \frac{2}{6}$, then x is equal to 3 6 9 12</p> <p>Which of the following is a positive rational number? 5 Which of the following rational numbers is equivalent to $-\frac{2}{3}$? -1 is equal to 1 -1 6 3</p> <p>$\frac{2}{3} \times \frac{3}{4} =$ 3 4</p> <p>Which is greater $\frac{2}{3}$ or $\frac{3}{4}$? Find five rational numbers between $\frac{1}{2}$ and $\frac{2}{3}$. Write the following rational numbers in ascending order, Find the sum of $-\frac{2}{3} + \frac{1}{4}$</p> <p>10) Find five equivalent rational numbers to $\frac{2}{3}$</p>
<p>SCIENCE</p>	<ul style="list-style-type: none"> •Name three vegetative parts of a plant. •How does the bursting of fruit help in the germination of seeds? •Write how the following seeds are dispersed. <p>(a) Seeds with wings.</p> <p>(b) Small and light seeds.</p> <p>(c) Seeds with spines/hooks.</p> <ul style="list-style-type: none"> •Coconut is a large and heavy fruit. How is it adapted for dispersal by water? •Boojho had the following parts of a rose plant – a leaf, roots, a branch, a flower, a bud and pollen grains. Which of them can be used to grow a new rose plant? <p>ACTIVITY</p> <ul style="list-style-type: none"> •Work on your self-healing power and write various ways to boost your immune system. •Fast food is not good for health. Compose a story (150-200 words with pictures) with this message wherein a girl or boy explains to her/his younger brother, the bad effects of eating fast food. ☆ Do this in separate notebook and revise Term 2 syllabus . <p>* Complete your MDP and Learners Diary (Upto Motion and Time)</p>

	<p>Topic of MDP- Motion and Time(In file) -Different types of Motion with examples.</p> <p>-Different types of Time measuring devices .</p>
SOCIAL SCIENCE	<p>1) Complete the question and answer of the chapter:- Tribes Nomads and settled communities</p> <p>2) Complete your MDP.</p> <p>3) Make a poster on Print Media and Electronic Media.</p> <p>4) List four different products with pictures that are advertised during your favourite TV programme. (Make a chart/Poster)</p> <p>All the students will write the questions and answers of the chapter:- Tribes Nomads and settled communities in SST notebook.</p> <p>2) MDP in a separate A4 sheet.</p> <p>3) Make a poster and chart for print media/electronic media and product pictures of advertisement</p>
SANSKRIT	<p>1) दशपुष्पफलशाकानां चित्राणि संगृह्य तेषां संस्कृतनामानि लिखत। (दस-दस फूलों फलों एवं सब्जियों के चित्र एकत्रित कर उनके संस्कृत नाम लिखिए।)</p> <p>(2) केषाञ्चन पञ्चानां वन्यजीवानां, पालतूपशूनां, पक्षिणां च चित्राणि संगृह्य तेषां संस्कृतनामानि लिखत। (किन्हीं पांच -पांच वन्य पशुओं, घरेलू पशुओं एवं पक्षियों के चित्र एकत्रित कर उनके संस्कृत नाम लिखिए।)</p> <p>(3) संस्कृतभाषायाम् प्रतिज्ञाम् लिखत च कंठस्थीकृत कुरू- (संस्कृतभाषा में प्रतिज्ञा लिखो व याद करो।)</p> <p>(5) निम्नलिखित गद्यांशम् पठित्वा उत्तरम् ददातु - (निम्नलिखित गद्यांश को पढ़कर उत्तर दीजिये-)</p> <p>कस्मिंश्चिद् राज्ये कोऽपि नृपः शासनं करोति स्म। एकः स्वामिभक्तः वानरः तस्य अङ्गरक्षकः आसीत्। वानरः मूर्खः। आसीत्। एकदा सुप्तस्य नृपस्य वानरः व्यजनं करोति स्म। एका मक्षिका तस्य ग्रीवायाम् अतिष्ठत्। वानरः मक्षिकाम् अपसारयितुं खड्गेन प्रारम्भं अकरोत्। मक्षिका तु उड्डीयते स्म परन्तु खड्ग-प्रहारेण नृपस्य ग्रीवा अच्छिनत्।</p> <p>प्रश्न 1. उपर्युक्त गद्यांशस्य उचितं शीर्षकं लिखत? (उपर्युक्त गद्यांश का उचित शीर्षक लिखे)</p> <p>प्रश्न 2. वानरः कस्य अङ्गरक्षकः आसीत्? (बन्दर किसका अंगरक्षक था।)</p> <p>प्रश्न 3. मक्षिकान् अपसारयितुं वानरः केन प्रहारम् अकरोत्? (मक्खी को उड़ाने के लिए बन्दर ने किससे प्रहार किया?)</p> <p>प्रश्न 4. सुप्तस्य नृपस्य व्यजनं कः करोति स्म? (सोते हुए राजा के पंखा कौन झलता है।) निम्न चित्रं दृष्ट्वा अधोलिखितानि वाक्यानि पूरयत</p>

CLASS: VIII

SUBJECT	HOME WORK
ENGLISH	<ol style="list-style-type: none">1. Complete your Learner's Diary.2. Major H.P.S. Ahluwalia was a member of the first successful Indian expedition to Mount Everest in 1965, who were the others members of this team? What obstacles had they faced in climbing?3. Write a paragraph on any adventure you want to do in your life.4. Write a paragraph on the importance of the game and adventure in our education.5. Prepare MDP for term-II in file.
HINDI	<p>प्रश्न 1. पांच पेज सुलेख लिखे।</p> <p>प्रश्न 2. भारत की खोज पाठ युगों का दौर पढ़ो और स्वयं से 10 प्रश्नोत्तर लिखो।</p> <p>प्रश्न 3. किसी एक विषय पर अनुच्छेद लिखो:- अनुशासन का महत्व 2. जीवन में खेलों का महत्व</p> <p>प्रश्न 4: समाचार-पत्र का प्रतिदिन एक लेख पढ़ो और उसमें आए कठिन शब्दों को अर्थ सहित याद करो।</p> <p>प्रश्न :5 हिंदी के अर्धवार्षिक परीक्षा के सभी प्रश्नों को कॉपी में हल करें।</p>
MATHS	<p>1. An algebraic expression that contains only one term is called: A. Monomial B. Binomial C. Trinomial D. None of the above</p> <p>3. The algebraic expression $3x+2y+6$ is a: A. Monomial B. Binomial C. Trinomial D. None of the above</p> <p>4. If we subtract $4a - 7ab + 3b + 12$ from $12a - 9ab + 5b - 3$, then the answer is: A. $8a+2ab+2b+15$ B. $8a+2ab+2b-15$ C. $8a-2ab+2b-15$ D. $8a-2ab-2b-15$</p> <p>5. If we multiply $5x$ and $(-4xyz)$, then we get: A. $20x^2yz$ B. $-20x^2yz$</p>

C. x^2yz

D. $-2xyz$

6. A polynomial contains _____ number of terms:

A. One

B. Two

C. Three

D. Any

7. In which of the following, the two expressions are like terms?

A. $7x$ and $7y$

B. $7x$ and $9x$

C. $7x$ and $7x^2$

D. $7x$ and $7xy$

8. If we add, $7xy + 5yz - 3zx$, $4yz + 9zx - 4y$ and $-3xz + 5x - 2xy$, then the answer is:

A. $5xy + 9yz + 3zx + 5x - 4y$

B. $5xy - 9yz + 3zx - 5x - 4y$

C. $5xy + 10yz + 3zx + 15x - 4y$

D. $5xy + 10yz + 3zx + 5x - 6y$

9. The product of $4x$ and 0 is:

A. $4x$

B. 4

C. 0

D. None of the above

10. The volume of a cuboid with length, breadth and height as $5x$, $3x^2$ and $7x^4$ respectively is:

A. $105x^7$

B. $105x^2$

C. $105x^4$

D. $105x$

11. The product of $5x$ and $3y$ is:

A. xy

B. $2xy$

C. $5xy$

D. $15xy$

12. The product of $6x$ and $-11x$ is:

A. $66x^2$

B. $-66x^2$

C. x^2

D. $-x^2$

13. The area of a rectangle whose length and breadth are $3y$ and $9y^2$ respectively is:

A. $12y^3$

B. $21y^3$

C. $27y^3$

D. y^3

14. The area of a rectangle that has length = $2a^2b$ and breadth = $3ab^2$ is:

A. $6a^3b^3$

B. a^3b^3

C. $2a^3b^3$

D. $4a^3b^3$

15. The side of a cube is $2a$. Find the volume of the cube.

A. $4a^2$

B. $2a$

C. $8a^3$

D. 8

16. Multiplication of monomials x^2 , $(-x)^3$, $(-x)^4$ is equal to:

A. x^9

B. x^5

C. x^7

D. x^6

17. The value of $(x - y)(x + y) + (y - z)(y + z) + (z - x)(z + x)$ is:

A. $x + y + z$

B. $x^2 + y^2 + z^2$

C. $xy + yz + zx$

D. 0

18. $(a - b)^2$ is equal to:

A. $a^2 + b^2 - 2ab$

B. $a^2 + b^2 + 2ab$

C. $a^2 + b^2$

D. $2ab$

19. The product of $3xy^2z$ and $4x$ is:

A. $12xyz$

B. $12xy^2$

C. $12x^2y^2z$

D. $12x^2yz$

20. Which of the following is a like term as $8xy$?

A. 8

B. $8x$

C. $8y$

D. xy

21. Revise examples of chapter 8 and exercise 8.1, 8.2.

22. Learn table 2 to 25

--	--

SCIENCE	<p>Q1 Complete the back exercise of chapter reproduction in animals in your science notebook.</p> <p>Complete the following worksheet in a separate notebook</p> <p>Q2 WRITE TWO OR THREE DIFFERENCES BETWEEN</p> <ul style="list-style-type: none">• Wildlife sanctuary and Biosphere reserve• Endangered and Extinct species• Flora and Fauna• Foetus and Embryo• Cloning and Test Tube babies• Internal and External Fertilisation <p>Oviparous and Viviparous animals</p> <p>Q3 MULTIPLE CHOICE QUESTIONS (MCQ)</p> <p>Question 1. Asexual Reproduction occurs through</p> <ul style="list-style-type: none">• Budding• Fragmentation• Vegetative Propagation• All of these <p>Question 2. No of nuclei present in a zygote is</p> <ul style="list-style-type: none">• One• Two
----------------	--

- Three
- None

Question 3. Eggs are produced in a Fallopian Tube/OviDuct

- Testes
- Urinary Tract
- Ovary

Question 4.

Some of the threatened wild animals are

- White Eyed Buck and Black Buck
- Elephant and Golden Cat
- Both 1 and 2
- Only 1

Question 5.

External fertilisation takes place in

- Mosses
- Ferns
- Frogs and Fishes
- All of these

Question 6.

Record of all endangered species are kept in

- Blue Book
- Red Book
- Red Data Book
- None of above

Question 7.

Fusion of egg and sperm is called

- Fertilisation
- Fragmentation
- Reproduction
- Internal Fertilisation

Q4 ACTIVITY BASED QUESTIONS

- (1) Prepare a clay model showing Metamorphosis in Frog/ Butterfly/ Silk Moth
- (2) Prepare a model for Rajya Stariya Bal Vaigyanik Prdarshani. Subthemes are given below

CHOOSE ANY ONE SUBTHEME

MDP TOPIC WATER

Q5 Complete MDP for the (Term II) in a file in an organised manner.

OBJECTIVES :

- To observe water movement within celery
- To know about the different schemes run by the government for underprivileged section of the society

LEARNING OUTCOME :

- Student are able to investigate water movement on plant

- Student will be able to describe the role water plays in atmospheric system

3. Activity (TERM-II)

Fill the glass with tap water. Add two or three drops of food colouring. Notice how it spreads through the water. Pollution spreads through water just like the food colouring does. Wash the piece of celery. Put the celery in the glass filled with coloured water. After few hours take the celery stalk out of the water.

Use the knife (remember to get help from your parents or teacher) and cut a slice off the bottom of the stalk.

Do this several times.



Questions to Answer (TERM-II)

1. How long did you leave the celery stalk in the water?
2. When you sliced off pieces from the celery stalk, what did you find?

Twinning - A Miraculous Wonder ”

Q6 Find out of how twinning occurs for any identical or non-identical twins also find

1. Why are identical twins of the same sex.
2. **Explore the genetic and environmental factors influencing twinning.**
3. Differentiate about the types of twinning, monozygotic and dizygotic.
4. **Create a poster illustrating the process of twinning.**

SOCIAL SCIENCE

Task 1*

Create a timeline showing the major events of the *1857 revolt*. Your timeline should include:

1. Important dates (e.g., start of the rebellion, major battles, key leaders involved)
2. Key locations (e.g., Meerut, Delhi, Kanpur)
3. Visuals like small illustrations or cut-outs related to each event.

The timeline can be drawn on chart paper and should be neat and colorful.

**Task 2:

Leader Profiles*

- *Individual work*: Research and prepare a one-page profile on any one leader of the 1857 revolt. You can choose from:

1. *Rani Lakshmbai*
2. *Bahadur Shah Zafar*
3. *Nana Sahib*
4. *Tantia Tope*

Your profile should include:

1. The leader's background
2. Role in the rebellion
3. Challenges faced and their legacy

This will be used for a classroom display during the lesson.

**Task 3:

Causes of the Revolt Poster**

- *Pairs: Make a poster showing the **social, political, economic, and military causes* of the 1857 revolt. Use diagrams and brief descriptions to explain:

1. Discontent among sepoys
2. Issues with British policies (e.g., Doctrine of Lapse)
3. Social unrest caused by new laws

The poster should clearly explain why different sections of society joined the rebellion.


SANSKRIT

केन्द्रीय विद्यालय नं.2 दिल्ली छात्राणी
कक्षा - 8
शतशतकस्य गुरुकार्ये

1) संस्कृत में प्रविष्टां विषये च चर्चा करो।
2) अर्थे चो 5 श्लोक अर्थं चर्चयित्वा लिखत।
3) 1 से 100 तक संस्कृत में लिखी लिखो।

4) अर्थं विना विदुः सूर्योदय चो 20 श्लोक विदुःसूर्योदयको को गुरुं कीर्तयत -


1. अर्थं विदुः..... हे ।
2. अर्थं विदुः..... अर्थं विदुः
इत्येव चिन्तय चो..... हे/ हे ।
3. विदुः..... अर्थं विदुः/ अर्थं विदुः
विदुः चो..... हे/ हे ।
4. अर्थं..... अर्थं विदुः/ अर्थं विदुः ।
अर्थं..... हे/ हे ।
5. अर्थं विदुः चो..... अर्थं विदुः
इत्येव चिन्तय चो..... हे/ हे ।

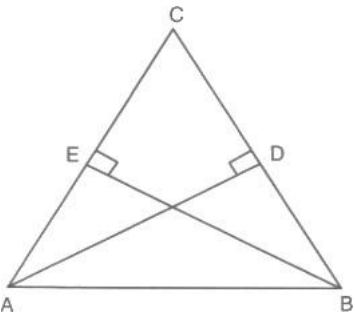
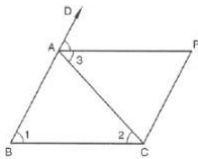


	<p style="text-align: center;">Colloid (d) Suspension</p> <p>Q. 5 If the organisation of a cell is destroyed due to some physical or chemical influence, what will happen?</p> <p>Q. 6 Make a comparison and write down ways in which plant cells are different from animal cells. Also draw the labelled diagram of them.</p> <p>Q. 7 Explain the following giving examples. (a) Balanced and unbalanced force (b) First law of motion (c) Inertia and mass (d) Second law of motion (e) Third law of motion</p> <p>Q. 8 What happens to the force between two objects, if- (i) the mass of one object is doubled? (ii) the distance between the objects is doubled and tripled? (iii) the masses of both objects are doubled?</p> <p>Q. 9 Gravitational force on the surface of the moon is only 1/6 as strong as gravitational force on the earth. What is the weight in newtons of a 10 kg object on the moon and on the earth?</p> <p>Q.10 Prepare the concept map of chapter- 06 "Tissues" and chapter - 07 "Motion".</p> <p>Q. 11 Write one competency based MCQ type question by your own from the chapter 01, 02, 05, 06, 07, 08 and 09 and give its correct answer.</p> <p>PROJECT: Each student will make at least 05 play cards with symbols and valencies of the elements separately to form the formulas of compounds. (Source – Group activity, chapter- 03)</p>
--	---

<p>SOCIAL SCIENCE</p>	<p>*Task 1: Political Parties Profile*</p> <p>- *Individual work: Research and prepare a one-page profile of any **one major political party* in India (e.g., Indian National Congress, Bharatiya Janata Party, etc.). Include the following:</p> <ol style="list-style-type: none"> 1. Party symbol 2. History and founding leaders 3. Current leadership 4. Ideology and main policies 5. Key electoral achievements (winning elections, major reforms) <p>Your profile can be used as part of a class display.</p> <p>### *Task 2:- **Group Activity: Prepare for a **mock election*</p> <ol style="list-style-type: none"> 1. A short campaign speech for a class election (what promises you would make if you were running for office). <p>### *Task 3: Role of Election Commission Poster*</p> <p>- *Pairs*: Create a poster or chart showing the responsibilities of the Election Commission of India. Focus on how it ensures free and fair elections, from monitoring campaigns to overseeing vote counting.</p>
------------------------------	--

MATHEMATICS

	Do all questions in MATHS C.W. Copy.	
1	Rationalise: $\frac{1}{\sqrt{7+\sqrt{3}}-\sqrt{2}}$.	
2	If $a = \frac{3+\sqrt{5}}{2}$, then find the value of $a^2 + \frac{1}{a^2}$.	
3	Factorise: $ab(x^2 + y^2) - xy(a^2 + b^2)$	
4	Using remainder theorem factorise: $x^3 - 3x^2 - x + 3$	
5	Verify that $x^3 + y^3 + z^3 - 3xyz = \frac{1}{2}(x + y + z)[(x - y)^2 + (y - z)^2 + (z - x)^2]$	
6	Name the quadrant in which the following points lie: (i) A(2, 9) (ii) B(-3, 5) (iii) C(-4, -7) (iv) D(3, -2)	
7	Write the coordinates of the vertices of a rectangle whose length and breadth are 5 and 3 units respectively, one vertex at the origin, the longerside lies on the x - axis and one of the vertices lies in the III quadrant.	
8	Find at least 3 solutions for the linear equation $2x - 3y + 7 = 0$.	
9	Find five different solutions of the equation: $3y = 4x$	
10	If P, Q, and R are three points on a line and Q is between P and R, then prove that $PR - QR = PQ$.	
11	In the given figure, if $OX = \frac{1}{2}XY$, $PX = \frac{1}{2}XZ$ and $OX = PX$, show that $XY = XZ$.	
12	Find the angle whose complement is one third of its supplement.	
13	In Fig.  $\angle AOC$ and $\angle BOC$ form a linear pair. If $a - b = 20^\circ$, find the values of a and b.	

14	<p>In given figure, AD and BE are respectively altitudes of a triangle ABC such</p>  <p>that $AE = BD$. Prove that $AD = BE$.</p>	
15	<p>Line segment joining the mid - points M and N of parallel sides AB and DC, respectively of a trapezium ABCD is perpendicular to both the sides AB and DC. Prove that $AD = BC$.</p>	
16	<p>In the figure, ABC is an isosceles triangle in which $AB = AC$. CP \parallel AB and AP is the bisector of exterior $\angle CAD$ of $\triangle ABC$. Prove that (i) $\angle PAC = \angle BCA$ and</p>  <p>(ii) ABCP is a parallelogram.</p>	
17	<p>In the adjoining figure, ABCD is a parallelogram in which $\angle DAB = 80^\circ$ and $\angle DBC = 60^\circ$. Calculate $\angle CDB$ and \angle</p>	

CLASS: X

SUBJECT	HOME WORK
ENGLISH	<ol style="list-style-type: none">1. Learn and revise the whole syllabus for the preparation of Pre-Board exam.2. Solve two CBSE Sample Papers on a separate notebook.3. Letter writing – Write two letters of order placement and letter to the Editor.4. Write all the poetic devices with examples and explanation used in the poems.5. Prepare the poem 'Snake' for class presentation for a classroom activity6. Revise the grammar topics (Tenses, Modals, Subject Verb Agreement, Reported Speech) and do exercises of each topic in your class notes.
HINDI	<p>निम्नलिखित प्रश्नों को अपनी अभ्यास पुस्तिका में लिखिए और याद कीजिए</p> <p>प्रश्न 1 बालगोबिन भगत के चरित्र की किन विशेषताओं के कारण उन्हें गृहस्थ साधु के नाम से जाना जाता था?</p> <p>प्रश्न 2 बाल गोबिन भगत किस प्रकार अपने बेटे की मृत्यु पर अपनी भावनाओं को अभिव्यक्त करता है?</p> <p>प्रश्न 3 भगत की मधुर गायन की विशेषताएं लिखिए।</p> <p>प्रश्न 4 'लखनवी अंदाज़' अध्याय के आधार पर नवाबी सनक और शौक किस प्रकार सामन्ती व्यवस्था के पतन के कारण बने, समझाइए।</p> <p>प्रश्न 5 बिना विचार, घटना और पात्रों के क्या कोई कहानी लिखी जा सकती है? यशपाल जी के विचारों से आप कहां तक सहमत हैं?</p> <p>प्रश्न 6 फादर बुल्के के जीवन को समझाते हुए बताइए कि उनकी तुलना देवदार के वृक्ष से क्यों की गई?</p> <p>प्रश्न 7 'फादर बुल्के भारतीय संस्कृति के अभिन्न अंग है।' यह किस आधार पर कहा गया है ?</p> <p>प्रश्न 8 गंतोक को मेहनतकश बादशाहों का शहर क्यों कहा जाता है? समझाइए।</p> <p>प्रश्न 9 वाक्य के कितने भेद हैं प्रत्येक भेद का दो - दो उदाहरण लिखिए</p> <p>प्रश्न 10 अलंकार किसे कहते हैं ? आपके पाठ्यक्रम में दिए गए रूपक, उपमा, उत्प्रेक्षा, अतिशयोक्ति, मानवीकरण अलंकारों की परिभाषा तथा प्रत्येक के पाँच-पाँच उदाहरण लिखिए।</p> <p>प्रश्न 11 'मोहन बाजार से सब्जियां और फल लेकर आया।' वाक्य के पदों का परिचय दीजिए</p> <p>प्रश्न 12 अपने मित्र को कोरोना से बचाव संबंधी निर्देश देते हुए पत्र लिखिए।</p> <p>प्रश्न 13 किसी एक विषय पर अनुच्छेद लिखिए।</p> <p>क) बेरोजगारी: एक महान समस्या ख) कोरोना: एक महामारी</p>
SCIENCE	<ol style="list-style-type: none">1. Solve sample question paper provided by CBSE2. Complete your practical file and submit after autumn break for correction3. Prepare a working model for Science Exhibition on topic given by your science teacher4. Prepare a formula sheet and write all the formulas given in NCERT5. Revise all the chapters and prepare for your Preboard Exam
SOCIAL SCIENCE	<p>Long answer type questions</p> <ol style="list-style-type: none">1. What were reformation debates which had to Christianity split in to 2 parts2. In which year and city gutenbure printing press was setup3. How printing technology reach into Europe how it affected the life of the common people4. How printing technology reached in India which news papers and Magzines were started at that time

	<p>5. What is globalization what are the main aspect of it</p> <p>Short answer type questions</p> <ol style="list-style-type: none"> 1. What is wood block printing technology 2. Where printing technology started.first time 3. What is privatisation 4. How government protected the interest of the labor class after the policy of privatisation 5. What is FDI foreign direct investment
--	---

MLM FOR CLASS-X MATHEMATICS

NUMBER SYSTEM

1. Use prime factorisation to find the HCF of: (i) 135 and 225 (ii) 196 and 38220 (iii) 867 and 255. [3+3+3]
2. Consider the numbers 4^n , where n is a natural number. Check whether there is any value of n for which 4^n ends with the digit zero. [3]
3. Find the LCM and HCF of 6 and 20 by the prime factorization method. [2]
4. Find the HCF and LCM of 6, 72 and 120, using the prime factorization method. [2]
5. Given that $HCF(306, 657) = 9$, find $LCM(306, 657)$. [2]
6. Check whether 6^n can end with the digit 0 for any natural number n. [3]
7. Explain why $7 \times 11 \times 13 + 13$ is composite number. [2]
8. Prove that $\sqrt{5}$ is irrational. [3]
9. Prove that $3 - 2\sqrt{5}$ is irrational. (2)

POLYNOMIALS

1. Find the zeroes of the quadratic polynomial $x^2 + 7x + 10$, and verify the relationship between the zeroes and the coefficients. [3]
2. Find the zeroes of the polynomial $x^2 - 3$ and verify the relationship between the zeroes and the coefficients. [2]
3. Find a quadratic polynomial, the sum and product of whose zeroes are $-3/2$ and $2/5$ respectively.
4. Find the zeroes of the following quadratic polynomials and verify the relationship between the zeroes and the coefficients.

(i) $x^2 - 2x - 8$ (ii) $4s^2 - 4s + 1$ (iii) $6x^2 - 3 - 7x$

[3+3+3]
5. Find a quadratic polynomial each with the given numbers as the sum and product of its zeroes respectively.

(i) 0, 5/2 (ii) 1, -1 (iii) -4, 1/3 [2+2+2]

PAIR OF LINEAR EQUATION IN TWO VARIABLES

1. Check whether the pair of equations
 $x + 3y = 6$ and $2x - 3y = 12$ is consistent. If so, solve them graphically. [3]
2. Half the perimeter of a rectangular garden, whose length is 4 m more than its width, is 36 m. Find the dimensions of the garden. [3]
3. Draw the graphs of the equations $x - y + 1 = 0$ and $3x + 2y - 12 = 0$. Determine the coordinates of the vertices of the triangle formed by these lines and the x-axis, and shade the triangular region. [3]
4. Solve the following pair of equations by substitution method:
 $7x - 15y = 2$ and $x + 2y = 3$ [2]
5. Solve $2x + 3y = 11$ and $2x - 4y = -24$ and hence find the value of 'm' for which $y = mx + 3$. [2]
6. Five years hence, the age of Jacob will be three times that of his son. Five years ago, Jacob's age was seven times that of his son. What are their present ages? [3]
7. Use elimination method to find solutions of the following pair of linear equations :
 $2x + 3y = 8$ and $4x - 6y = 7$ [2]
8. A lending library has a fixed charge for the first three days and an additional charge for each day thereafter. Saritha paid Rs 27 for a book kept for seven days, while Susy paid Rs 21 for the book she kept for five days. Find the fixed charge and the charge for each extra day. [4]
9. Solve the following pair of equations :
 $6x + 3y = 6$ and $2x + 4y = 5$ [2]

QUADRATIC EQUATIONS

1. The area of a rectangular plot is 528 m^2 . The length of the plot (in metres) is one more than twice its breadth. We need to find the length and breadth of the plot. [3]
2. The product of two consecutive positive integers is 306. We need to find the integers. [3]
3. Rohan's mother is 26 years older than him. The product of their ages (in years) 3 years from now will be 360. We would like to find Rohan's present age. [3]
4. Find the roots of the quadratic equation $6x^2 - x - 2 = 0$. [2]
5. Find two numbers whose sum is 27 and product is 182. [2]
6. Find two consecutive positive integers, sum of whose squares is 365. [2]
7. Find the roots of the equation $5x^2 - 6x - 2 = 0$ by the method of quadratic formula. [3]
8. Find the roots of the following quadratic equations, if they exist, using the quadratic formula:
(i) $3x^2 - 5x + 2 = 0$ (ii) $x^2 + 4x + 5 = 0$ (iii) $2x^2 - 2\sqrt{2}x + 1 = 0$ [2+2+2]
9. In a class test, the sum of Shefali's marks in Mathematics and English is 30. Had she got 2 marks more in Mathematics and 3 marks less in English, the product of their marks would have been 210. Find her marks in the two subjects. [3]
10. Find the values of k for each of the following quadratic equations, so that they have two equal roots.
(i) $2x^2 + kx + 3 = 0$ (ii) $kx(x - 2) + 6 = 0$ [2+2]

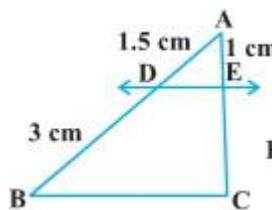
11. Sum of the areas of two squares is 468 m². If the difference of their perimeters is 24 m, find the sides of the two squares. [3]

ARITHMETIC PROGRESSION

1. Find the 10th term of the AP : 2, 7, 12, . . . [2]
2. Which term of the AP : 21, 18, 15, . . . is – 81? Also, is any term 0? Give reason for your answer. [3]
3. Determine the AP whose 3rd term is 5 and the 7th term is 9. [2]
4. Check whether – 150 is a term of the AP : 11, 8, 5, 2 . . . [2]
5. The 17th term of an AP exceeds its 10th term by 7. Find the common difference. [2]
6. Which term of the AP : 3, 15, 27, 39, . . . will be 132 more than its 54th term? [3]
7. How many three-digit numbers are divisible by 7? [3]
8. How many multiples of 4 lie between 10 and 250? [2]
9. Find the sum of first 22 terms of an AP in which $d = 7$ and 22nd term is 149. [2]
10. Find the sum of first 51 terms of an AP whose second and third terms are 14 and 18 respectively. [3]
11. Find the sum of the first 40 positive integers divisible by 6. [2]
12. Find the sum of the first 15 multiples of 8. [2]
13. Find the sum of the odd numbers between 0 and 50. [2]

TRIANGLES

- Q.1: In the given figure, $DE \parallel BC$. Find EC. (1)



- Q.2 State and prove Basic Proportionality Theorem. (4)

COORDINATE GEOMETRY

- Q.1: Find the distance between the given pairs of points (a, b) , $(-a, -b)$ (1)
- Q.2: Find the length of all the sides of a triangle whose vertices are $(1, -1)$, $(-4, 6)$ and $(-3, -5)$. (1)

Q.3: Find the coordinates of a point A, where AB is the diameter of a circle whose centre is (2, -3) and B is (1, 4). (2)

Q.4: Find the coordinates of the point which divides the join of (-1, 7) and (4, -3) in the ratio 2 : 3. (2)

Q.5: Find the point on the x-axis which is equidistant from (2, -5) and (-2, 9). (3)

Q.6: Find a relation between x and y such that the point (x, y) is equidistant from the point (3, 6) and (-3, 4). (3)

Q.7: Show that the points (1, 7), (4, 2), (-1, -1) and (-4, 4) are the vertices of a square. (3)

Q.8: Find the ratio in which the line segment joining A(1, -5) and B (-4, 5) is divided by the x-axis. Also find the coordinates of the point of division. (4)

INTRODUCTION TO TRIGONOMETRY

Q.1: In ΔABC , right-angled at B, $AB = 24$ cm, $BC = 7$ cm. Find: $\sin A$, $\cos A$. (2)

Q.2: If $\sin A = 3/4$ calculate $\tan A$. (2)

Q.3: Evaluate $2 \tan^2 45^\circ + \cos^2 30^\circ - \sin^2 60^\circ$ (2)

Q.4: Show that $\cos 30^\circ \cos 60^\circ - \sin 30^\circ \sin 60^\circ = 0$ (2)

Q.5: If $\sin(A - B) = 1/2$ $\cos(A + B) = 1/2$ where $0^\circ < A + B \leq 90^\circ$, $A > B$, find A and B. (3)

Q.6: Prove that $(\sin A + \operatorname{cosec} A)^2 + (\cos A + \sec A)^2 = 7 + \tan^2 A + \cot^2 A$ (3)

Q.7: Prove that :

$\sec A (1 - \sin A)(\sec A + \tan A) = 1$. (3)

Q.8: Prove that :

$$(\operatorname{cosec} \theta - \cot \theta)^2 = 1 - \cos \theta / 1 + \cos \theta \quad (3)$$

SOME APPLICATIONS OF TRIGONOMETRY

Q.1: A tower stands vertically on the ground. From a point on the ground, which is 15 m away from the foot of the tower, the angle of elevation of the top of the tower is found to be 60° . Find the height of the tower. (2)

Q.2: A circus artist is climbing a 20 m long rope, which is tightly stretched and tied from the top of a vertical pole to the ground. Find the height of the pole, if the angle made by the rope with the ground level is 30° . (2)

Q.3: The shadow of a tower standing on a level ground is found to be 40 m longer when the Sun's altitude is 30° than when it is 60° . Find the height of the tower. (3)

Q.4: From a point on the ground, the angles of elevation of the bottom and the top of a transmission tower fixed at the top of a 20 m high building are 45° and 60° respectively. Find the height of the tower. (4)

Q.5: The angle of elevation of the top of a building from the foot of the tower is 30° and the angle of elevation of the top of the tower from the foot of the building is 60° . If the tower is 50 m high, find the height of the building. (4)

Q.6: From the top of a 7 m high building, the angle of elevation of the top of a cable tower is 60° and the angle of depression of its foot is 45° . Determine the height of the tower. (4)

Q.7: The angles of depression of two ships from the top of a lighthouse and on the same side of it are found to be 45° and 30° . If the ships are 200 m apart, find the height of the lighthouse. (4)

CIRCLES

Q.1: Prove that the parallelogram circumscribing a circle is a rhombus. (3)

Q.2: A tangent PQ at a point P of a circle of radius 5 cm meets a line through the centre O at a point Q so that $OQ = 12$ cm. Find PQ. (1)

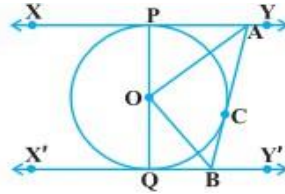
Q.3: Prove that the tangent at any point of a circle is perpendicular to the radius through the point of contact. (3)

Q.4: Prove that the lengths of tangents drawn from an external point to a circle are equal. (3) Q.5: A quadrilateral ABCD is drawn to circumscribe a circle. Prove that $AB + CD = AD + BC$ (3)

Q.6: In the given figure, XY and X'Y' are two parallel tangents to a circle with centre O and another tangent AB with point of contact C intersecting XY at A and X'Y' at B. Prove that

$\angle AOB = 90^\circ$. (4)

Q.7: Prove that the angle between the two tangents drawn from an external point to a



circle is supplementary to the angle subtended by the line-segment joining the points of contact at the centre. (4)

AREAS RELATED TO CIRCLES

- 1) Find the area covered by the minute hand 7 cm long when it moves from 2 to 5.
- 2) Find the area of the quadrant of a circle of diameter 14cm.
- 3) Find the area of minor segment of quadrant of a circle of radius 7cm.





- 4) The area of a circle is 154cm^2 . Find the length of arc making an angle 60° at the centre.
- 5) Find the area of the sector of a circle with radius 14cm and angle 30° .



SURFACE AREAS AND VOLUMES

1. 2 cubes each of volume 64 cm^3 are joined end to end. Find the surface area of the resulting cuboid.
 2. From a solid cylinder whose height is 2.4 cm and diameter 1.4 cm , a conical cavity of the same height and same diameter is hollowed out. Find the total surface area of the remaining solid to the nearest cm^2 .
 3. A solid is in the shape of a cone standing on a hemisphere with both their radii being equal to 1 cm and the height of the cone is equal to its radius. Find the volume of the solid in terms of π .
 4. A vessel is in the form of an inverted cone. Its height is 8 cm and the radius of its top, which is open, is 5 cm . It is filled with water up to the brim. When lead shots, each of which is a sphere of radius 0.5 cm are dropped into the vessel, one-fourth of the water flows out. Find the number of lead shots dropped in the vessel.
 5. A container shaped like a right circular cylinder having diameter 12 cm and height 15 cm is full of ice cream. The ice cream is to be filled into cones of height 12 cm and diameter 6 cm , having a hemispherical shape on the top. Find the number of such cones which can be filled with ice cream.
1. A survey was conducted by a group of students as a part of their environment awareness programmed in which they collected the following data regarding the number of plants in 20 houses in a locality. Find the mean number of plants per house.

No. of plants	100-150	150-200	200-250	250-300	300-350
No. of houses	4	5	12	2	2

2. The following table shows the ages of the patients admitted in a hospital during a year:

Age (in years)	5-15	15-25	25-35	35-45	45-55	55-65
No. of participants	6	11	21	23	14	5

Find the mode and the mean of the data given above. Compare and interpret the two

measures of central tendency.

3. The distribution below gives the weights of 30 students of a class. Find the median weight of the students.

Weight in kg	40-45	45-50	50-55	55-60	60-65	65-70	70-75
No. of students	2	3	8	6	6	3	2

4. The following distribution gives the daily income of 50 workers of a factory.

Daily income (in Rs.)	100-120	120-140	140-160	160-180	180-200
No. of workers	12	14	8	6	10

Find mean , median and mode.

5. The following table gives production yield per hectare of wheat of 100 farms of a village.

Production yield (in kg/ha)	50-55	55-60	60-65	65-70	70-75	75-80
No. of farms	2	8	12	24	38	16

Find mean , median and mode.

PROBABILITY

1. A box contains 3 blue, 2 white, and 4 red marbles. If a marble is drawn at random from the box, what is the probability that it will be (i) white? (ii) blue? (iii) red?

2. If $P(E) = 0.05$, what is the probability of 'not E'?
3. A bag contains 3 red balls and 5 black balls. A ball is drawn at random from the bag. What is the probability that the ball drawn is (i) red ?(ii) not red?
4. A box contains 5 red marbles, 8 white marbles and 4 green marbles. One marble is taken out of the box at random. What is the probability that the marble taken out will be
(i) red ? (ii) white ? (iii) not green?

6. One card is drawn from a well-shuffled deck of 52 cards. Find the probability of getting:

- | | | |
|--------------------------|------------------|----------------------------|
| (i) a king of red colour | (ii) a face card | (iii) a red face card |
| (iv) the jack of hearts | (v) a spade | (vi) the queen of diamonds |

5. One card is drawn from a well-shuffled deck of 52 cards. Find the probability of getting:

- | | | |
|-----------------------------------|-------------------------|-----------------------------------|
| (i) a queen of blackcolour | (ii) a face card | (iii) a red face card |
| (iv) the jack of hearts | (v) a spade | (vi) the queen of diamonds |

6. A die is thrown twice. What is the probability that
(i) 5 will not come up either time? (ii) 5 will come up at least once?

8. A lot of 20 bulbs contain 4 defective ones. One bulb is drawn at random from the lot. What is the probability that this bulb is defective?

CLASS: XI

SUBJECT	HOME WORK
ENGLISH	<ol style="list-style-type: none"> 1. Write summary of the following lessons in 250 words:- i.A Photograph ii.Mother's Day iii. Discovering Tut: The Saga Continues 2. Learn and write textual question answers of the following lessons: i.The Portrait of a Lady ii.The Address iii.The Voice of the Rain 3. Write a speech on: Women Empowerment . 4. Write Classified advertisement for: a)To Let b) Situation Vacant 5. Make posters on the following topics: a)Say no to polythene bags b)Yoga and Health 6. Tense :- 6 examples of each tense 7. One comprehension passage & solution 8. Read English newspaper daily and write 4 news headlines daily in your notebook. <p style="text-align: center;">All the homework is to be done in separate file/ notebook and a test will be conducted on the same on 18th October.</p>
HINDI	<ol style="list-style-type: none"> 1. अपनी किसी यात्रा का वर्णन 200 शब्दों में लिखिए। 2. साक्षात्कार किसे कहते हैं, अपने किसी परिचित का साक्षात्कार लेते हुए उसे लिखिए। 3. किसी एकविषय पर अप्रत्याशित लेख लिखिए। जल बिन सब सून इम्तहान के दिन 4. अभिव्यक्ति और माध्यम पुस्तक के पाठों को याद करके , महत्वपूर्ण 15 लघुतरात्मक प्रश्नों का निर्माण कर अपनी कापी में लिखिए।
CHEMISTRY	<ol style="list-style-type: none"> 1. Revise and complete all ques (exercise and intext) of all taught chapters, from NCERT textbook in HW chemistry notebook: 2. Prepare a CHEMISTRY INVESTIGATORY PROJECT on the topic assigned to you by the subject teacher in the class. Use A4 size sheets for the project including various newspaper clippings, images, latest discoveries and inventions relevant to the topic. Follow the given headings in the project (in 12-15pages) <ul style="list-style-type: none"> • Certificate • Acknowledgement • Introduction • Details of the project (research related to the topic) • Experiment (detailed manner including procedure) • Observations & Analysis • Result • Bibliography (mention the links)

	<p style="text-align: center;">OR</p> <p>Prepare a working model (on discussed topic) with synopsis for Science Exhibition 2024 in a group of 2 students.</p> <ol style="list-style-type: none"> 3. Complete all discussed and performed practicals in practical notebook. 4. Prepare a ppt on the following topic as per your roll no mentioned <ol style="list-style-type: none"> i) Equilibrium- Introduction and in Physical world (Roll no 1 to 5) ii) Equilibrium – type and its dynamic nature with example (Roll no 6 to 10) iii) Relation between K_p, K_c and Q_c. prediction of direction of reaction (Roll no 11 to 15) iv) Le chateliers' principle with all condition given in text book (Roll no 16 to 20) v) Concepts of Acid, Base and pH scale. (Roll no 21 to 25) vi) Hydrolysis of Salt, Buffer solution (Roll no 26 to 30) vii) K_{sp} and Solubility product. Common Ion effect. (Roll no 31 to 35) viii) Redox Reaction: Introduction, Concept, types, Calculation of Oxidation state (Roll no 36 to 40) ix) Balancing of reaction by given two methods in textbook (Roll no 41 to 45) x) Electrochemical cell – construction, working and application (Roll no 46 to last)
<p style="text-align: center;">PHYSICS</p>	<ol style="list-style-type: none"> 1. Revise all questions (exercise and intext) of all taught chapters, from NCERT textbook. 2. Complete your classwork notebook in all respects upto the syllabus covered . 3. Complete your practical file in all respects. 4. Revise all the chapters thoroughly for half yearly exam. 5. Solve pt1 question paper . <p style="text-align: center;">Some competency based questions</p> <p>Q.1) A force ($3\hat{i} + 4\hat{j}$) N acts on a body and displaces it by ($3\hat{i} + 4\hat{j}$) meters. Find the work done by the force .</p> <p>Q.2) What is the work done by a man carrying a bucket of water and walking on a rough level road with a uniform.</p> <p>Q.3) A body is acted upon by a variable force $F = (3 + 0.5x)$ N . Find the work done in moving the body from $x = 0$ to $x = 4$ m .</p> <p>Q.4) A truck draws a tractor of mass 1000 kg at a steady rate of 20 m/s on a level road. The tension in the coupling is 2000 N . Calculate the power spent on the tractor .</p> <p>Q.5)The center of mass of a rigid body lies A always Inside the body B. always Outside the body C. Either inside or outside D . None of the above</p> <p>Q.6) If the momentum of a particle is increased by 30%, then calculate increase % in its K.E .</p> <p>Q.7) A 2,000 kg truck moving at 10m/s strikes a car waiting at a traffic light. After collision , the two move together at 8m/s. Calculate the mass of the car .</p> <p>Q.8 The density of a material in SI units is 128kg/m^3. In certain units</p>

in which the unit of length is 25 cm and unit of mass is 50 g , The numerical value of density of material is

a) 640 b) 410 c) 40 d) 16

9.) If surface tension (S), moment of Inertia(I) and Planck's constant (h) were to be taken as fundamental units, the dimensional formula for linear momentum would be

a) $S^{3/2} I^{1/2} h^0$ b) $S^{1/2} I^{1/2} h^0$ c) $S^{1/2} I^{1/2} h^{-1}$
d) $S^{1/2} I^{3/2} h^{-1}$

10.) Which of the following have same dimensions?
(a) specific heat and latent heat (b) momentum and impulse
(c) moment of inertia and moment of momentum (d) Tension and surface tension

11.) check by method of dimensions whether the following equations are correct:
(a) $T=2\pi(\sqrt{l/g})$ (b) $v=P/Rho$, Where v =velocity of sound, P =pressure and ρ =density of medium

12.) State parallelogram law of vector addition and derive the formula to find the resultant vector.

13.) Derive equations of motion by graphical method.

14.) What is projectile motion? Derive equation of trajectory and expression for
(1) Maximum Horizontal range (2) Maximum height
(3) Time of flight (4) Condition for maximum range.

COMPUTER SCIENCE

- 1) _____ is known as a volatile memory
a) RAM b) ROM c) EPROM d) Flash
- 2) Identify the input device(s):
a) Speaker b) Printer c) Key board d) Scanner
- 3) Which of the following is referred to the brain of computer?
a) Processor b) RAM c) Hard Drive d) ROM
- 4) ASCII stand for _____
a) American Standard Computer for Information Interchange
b) American Status Code for Information Interchange
c) All India Standard Code for Information Interchange
d) American Standard Code for Information Interchange
- 5) Antivirus software is an example of _____
a) System software
b) Application software
c) Utility Software
d) Business Software
- 6) Who developed Python Programming Language
a) Konrad Zuse
b) Guido Van Rossum
c) John Von Neumann
d) Backus-Naar
- 7) Write any two examples of Application Software.
- 8) 24 GB = _____ MB = _____ KB
- 9) Why is Python termed as 'Free and Open Source' Software?
- 10) Briefly explain utility Software and its type
- 11) Briefly explain the basic architecture of a computer
- 12) Differentiate between following:
a) RAM and ROM

b) Interpreter and compiler

c) CPU and ALU

- 13) WAP to print the first 10 natural numbers using for loop.
- 14) WAP to print all the even numbers within the given range. Take the range from user.
- 15) WAP to calculate the sum of all numbers from 1 to a given number. Take the number from user.
- 16) WAP to calculate the sum of all the odd numbers within the given range. Take the number from user.
- 17) WAP to count the total number of digits in a number. Take the number from user.
- 18) WAP to check if the given string is a palindrome. Take the string from user.
- 19) WAP to accept a word from the user and reverse it.
- 20) WAP to check if a given number is an Armstrong number or not. Take the number from user.
- 21) WAP to print the Fibonacci series between 0 to 50.
- 22) WAP to find the factorial of a given number. Take the number from user.
- 23) WAP to check if a user entered number is prime or not.
- 24) Write a program to check whether the given input number is divisible by 3 or else show a message "Number is not divisible by 3".
- 25) Write a program that checks whether the given input is an even number or an odd number.
- 26) Write an if/else statement with the following condition: If the variable age is greater than 18, output "Old enough", otherwise output "Too young".
- 27) Write a program that prompts the user for their name, and then displays a special greeting to that person if their name is the same as yours. If the name entered by the user is anything other than your name, your code should not produce any output.
- 28) Write a program that takes a calendar year in YYYY format in a variable. Check & notify the user whether it is a leap year or not.
- 29) Write a program that takes input a number from user & state whether the number is positive, negative or zero.
- 30) Write a program that takes a character (i.e. string of length 1) and returns true if it is a vowel, false otherwise.
- 31) Write a program that
 - a) Store correct password in a variable.
 - b) Asks user to enter his/her password
 - c) Validate the two passwords:
 - i. Check if user has entered password. If not, then give message "Please enter your password"
 - ii. Check if both passwords are same. If they are same, show message "Correct! The password you entered matches the original password".
 - iii. Show "Incorrect password" otherwise.

POLITICAL SCIENCE	Learn all these Chapters 1) Indian Constitution at Work - Chapter no. 4,5,6 2) Political Theory - chapter no.-3 & 4 Complete your notebook

CLASS: XII

SUBJECT	HOME WORK
ENGLISH	<p>1. Read the lesson i. "Poets and Pancakes" ii. Indigo iii. Rattrap and write 4 extract based comprehension on each lesson having 4 short question-answers on each extract.</p> <p>2. Read the poem "A Thing of beauty" and write summary of it in 150-200 words.</p> <p>3. Write an application for job of a science teacher to the Principal of DPS School Karnal with Biodata.</p> <p>4. a.) Write a formal invitation in card format for marriage of a boy. b.) Write a reply of the above invitation expressing your inability to attend the function.</p> <p>5. Write a letter to the editor of a national daily highlighting use of mobile phone by school going children.</p> <p>6. Learn Question Answers of the Lessons i. Journey to the End of the Earth". ii. Enemy</p> <p>7. Write a report of the Cleanliness drive organized by your school.</p> <p>8) Write an article on Child Labour.</p> <p>A written test on 18th October will be conducted on the above homework.</p>
HINDI	<p>- 1. सीबीएसई साइट पर डाले गए प्रतिदर्श -प्रश्न पत्र को हल करके अपनी कापी में लिखना है।</p> <p>2. कहानी और नाटक में क्या-क्या समानताएं हैं, और क्या-क्या असमानताएं है स्पष्ट करते हुए लिखिए।</p> <p>3. अप्रत्याशित लेख लिखते समय हमें किन-किन बातों का ध्यान रखना चाहिए ?</p> <p>4. बीट और विशेषीकृत रिपोर्टिंग में क्या अंतर है लिखिए।</p> <p>5. फीचर किसे कहते हैं, फीचर लेखन की विशेषताएं बताइए।</p>
MATHS	
PHYSICS	<p>1. Prepare the file of investigatory project.</p> <p>2. Note down activities 4,5 and 6 of section B.</p> <p>3. Solve Half Yearly question paper(2, 3 and 5 marks questions) in class work notebook.</p> <p>4. Revise all the chapters taught so far.</p> <p>5. Solve 1 numerical problem based on the following topics (i) Torque on electric dipole (ii) Gauss's theorem (iii) Potential energy of electric dipole (iv) Combination of capacitors (v) Kirchhoff's laws (vii) Force on moving charge</p>

	<p>(viii) Torque on current carrying coil (ix) Torque on bar magnet (x) Faraday's law (xi) Resonant series LCR circuit (xii) Lens maker's formula (xiii) refraction through the prism (xiv) Interference (xv) Diffraction through single slit (xvi) Einstein's photoelectric equation (xvi) de Broglie's wavelength 6. Write important 40 formulae (chapters 1 to 11) 7. Draw the following diagrams (i) Moving coil galvanometer (ii) AC generator (iii) Transformer (iv) Image formed by compound microscope in near point adjustment (at D) (v) Image formed by astronomical telescope in normal adjustment (at infinity)</p>
<p>CHEMISTRY</p>	<ol style="list-style-type: none"> 1. Revise all questions (exercise and intext) of all taught chapters, from NCERT textbook. 2. Revise all previous year board ques (year 2020-2024) of all taught chapters. 3. Prepare investigatory project file for AISSCE-2025 under the title of: <ul style="list-style-type: none"> • Certificate ☐ Acknowledgement ☐ Introduction ☐ Why I selected this project ☐ Details of the project (research related to the topic) ☐ Experiment (detailed manner including procedure) • Observations & Analysis ☐ Result ☐ Bibliography (mention the links) 4. Complete your practical file in all respects. 5. Complete your HW copy in all respects. 6. Read the chapter biomolecules and write exercise question-answer in HW copy. 7. Prepare the list of formulas of physical chemistry. 8. Solve the half yearly question paper. 9. A reaction is 2nd order with respect to a reactant .How is the rate of reaction Affected when concentration of reactant becomes double . 10 State Kohlrausch's law. 11. Differentiate between order of reaction & molecularity of reaction. 12. For a reaction : $\text{H}_2 + \text{Cl}_2 \rightarrow 2\text{HCl}$ (in the presence of sunlight) Rate = k (i) Write the order and molecularity of this reaction (ii) Write the unit of k. 13. State Henry's law & write its applications. 14. Show graphically how molar conductivity varies with concentration for Acetic acid and potassium chloride. Also explain the reason for variation . 15. A 5% solution by mass of cane sugar has f.pt. 271K. Calculate the

	<p>f.pt.of 5% glucose in water if the f.pt. of pure water is 273.15K.</p> <p>16. Write Nernst equation & calculate the emf of the following cell $\text{Ni(s)} + 2\text{Ag}^+(0.002\text{M}) \rightleftharpoons \text{Ni}^{2+}(0.160\text{M}) + 2\text{Ag(s)}$ Given: $E^\circ_{\text{cell}} = 1.05 \text{ V}$</p> <p>17. Differentiate between ideal and non ideal solutions with example</p> <p>18. a. Define pseudo first order reaction with example. b. Show that in a first order reaction, time required for completion of 99.9% is 10 times of half life of the reaction</p> <p>19. How would you account for the following : (i) Many of the transition elements and their compounds can act as good catalysts. (ii) The metallic radii of the third (5d) series of transition elements are virtually the same as those of the corresponding members of the second series. (iii) With the same d-orbital configuration (d^4) Cr^{2+} is a reducing agent while Mn^{3+} is an oxidizing agent. (iv) Most of the transition metal ions exhibit characteristic colours in aqueous solutions . (v) Transition metals form large no. of alloys.</p>
ACCOUNTS	<ol style="list-style-type: none"> Solve CBSE sample question paper MCQ 5 questions from each chapter both books Write all formulas of Accounting Ratios and Learn them Write and Learn table upto 20
BUSINESS STUDIES	<ol style="list-style-type: none"> Project work- Outline, based on any ONE of the following topics – A) Business Environment B) Principles of Management C) Marketing Management Solve CBSE Board exam paper of last year. (Delhi region 2023-24) and CBSE SAMPLE PAPER of class XII BST. [NOTE – Avoid questions related to chapters which are not yet taught in the class]
BIOLOGY	<p>CHAPTER – 11: BIOTECHNOLOGY: PRINCIPLES AND PROCESSES</p> <p>One Mark Questions:</p> <ol style="list-style-type: none"> Name the substance used as a medium in Gel electrophoresis. What is Bioconversion? Name the bacterium that yields thermo-stable DNA polymerase. Which enzymes are known as “molecular Scissors”? Why does DNA moves towards anode in gel electrophoresis. Name the commonly used vector for transformation in plant cell? Name the technique used for amplification of DNA?

8. Name the enzyme responsible for removal of 5-phosphate group from nucleic acid ?
9. Who isolated Restriction enzymes for the first time?
10. Why do eukaryotic cells do not contain restriction enzymes?

Two Mark Questions:

1. Write any two properties of restriction endonuclease enzymes?
2. What is 'Selectable marker'? What is their use in genetic engineering?
3. How can the desired product formed after genetic engineering be produced on a commercial scale?
4. What is "Insertional Inactivation"?
5. What are the two basic techniques involved in modern Biotechnology?
6. Represent diagrammatically the *E. coli.* along Cloning vector bPBR322.
7. Differentiate between plasmid DNA and chromosomal DNA?
8. What is the role of enzyme "Ligase" in genetic Engineering?
9. Name the components a bioreactor must possess to achieve the desired product?
10. What is Bioreactor? What are the advantages of Stirred tank Bioreactor over Shake flask? Show diagrammatically a simple Stirred tank Bioreactor?

Three Mark Questions:

1. Mention the important properties which a good vector must possess?
2. Describe any three vectors less method of introducing the r-DNA into a competent host cell ?
3. List the steps involved in r-DNA technology.
4. Why are molecular scissors so called? Write their use in biotechnology.
5. Write the convention used for naming the restriction enzymes.
6. Why are genes encoding resistance to antibiotics considered useful selectable markers for *E. coli* cloning vector? Explain with the help of one example.
7. Why Agrobacterium mediated genetic transformation described as Natural Genetic engineering in plants?
8. PCR is a useful tool for early diagnosis of an infectious disease. Comment.
9. Write the use of the following in biotechnology:
(a) Chilled alcohol (b) Microinjection (c) Bioreactor (d) plasmid
10. Mention the important tools required for genetic engineering technology?

Five Mark Questions:

1. What are Restriction enzymes? Why do bacteria have these restriction enzymes? Show diagrammatically a restriction enzyme its recognition & the product it produces?
2. What is cloning vector? Explain the technique of using such a vector in *E.coli*.
3. Expand PCR. Describe the different Steps involved in this technique?
4. Describe the various steps involved in Recombinant DNA technology with the help of a well labelled diagram.
5. If a desired gene is identified in an organism for some experiments then explain the process of the following :
(a) Cutting this desired gene at specific location (b) Synthesis of multiple copies of this desired gene.

CHAPTER – 12: BIOTECHNOLOGY AND ITS APPLICATION**One Mark Questions:**

1. Name the genetically engineered human Insulin?
2. Write the Scientific name of nematode that attacks the root of tobacco plant?
3. Define a patent.
4. Expand GEAC.
5. Name the first transgenic cow?
6. Which vaccine was being tested on mice?
7. Name the bacterium which is used to produce insect-resistant plants by genetic engineering.
8. Name any disease against which vaccine is developed laid Recombinant DNA technology.
9. Name the technique which is used to detect HIV in Suspected AIDS patient?
10. Name any two diseases for which transgenic mice are used as model organisms. What is the difference between 'Cry' & 'cry'?
11. Name any one disease for which gene therapy has been proved effective?

Two Mark Questions:

1. What is Golden rice? What is its advantage?
2. What are the three critical research areas in the field of Biotechnology?
3. What are the advantages of molecular diagnostics over conventional methods?
4. What are genetically modified organisms? Name two factors on which their behaviour depends?
5. What do you mean by "Bio piracy" Give an example.

6. What are transgenic Bacteria? Illustrate using any one example.
7. Give any two examples of products. How transgenic animals can be used to produce biological compounds?
8. How is autoradiography used to detect a mutated gene?
9. Why does bacterial toxin not kill the bacteria but only the insects?
10. Mention any four applications of Biotechnology in the field of Agriculture?

Three Mark Questions:

1. Describe with example, why transgenic animals are produced?
2. Describe how nematode-resistant transgenic plants have been obtained?
3. What are Cry proteins? Name an organism that produces it. How has man exploited this protein to his benefit?
4. Write an account on the production of human insulin in transgenic organisms.
5. Compare & contrast the advantages & disadvantage of production of genetically modified organisms?
6. How is PCR used to detect gene mutation in case of suspected cancer patient? Bt-cotton is resistance to pest such as lepidopteran, dipterans and coleopterans. Is Bt-cotton resistant to other pest as well?
7. What is RNA Silencing? How is this strategy used to create pest-resistant plants?
8. What are the steps involved in synthesis of genetically engineered insulin.

Five Mark Questions:

1. What is Gene therapy? Illustrate using example of Adenosine deaminase deficiency?
2. Explain the different uses of biotechnology in medical field.
3. Diagrammatically represent the experimental steps in cloning and expressing a human gene into bacterium like *E.coli*?
4. What is bio piracy? State the initiative taken by the Indian parliament towards it.
5. How did the process of RNA interference help to control the nematode from infecting root of tobacco plants? Explain.

POLITICAL SCIENCE

Subject: Political science

1. Make practical file
2. Write a short essay on Globalisation.
3. Learn chapter 5 - Security in the Contemporary world.
4. Learn chapter no. 8 Recent Development in Indian politics
- 5 Complete your notebook
6. Analysis of half yearly question paper

SECTION-A		
1	State True or False: A tuple T1 is declared as TP1 = ("AB","CD","EF","GH") if a statement T1[2]="XY" is written then it changes value of 3 rd element of T1 as "XY".	1
2	What will be the output of the following statement: <pre>print(4**2-2**1**3//5*2+2)</pre>	1
3	Select the correct output of the code: kv="PM Shree KV Rewari" <pre>print(kv.lower[0]+kv[1:-1]+kv[-1].upper())</pre>	1
4	Which of the following statements create a dictionary? a) d = {} b) d = {"john":40, "peter":45} c) d = {40:"john", 45:"peter"} d) All of the mentioned	1
5	Given the lists VOWELS=["A","E","I","O","U"], write the output of following statement <pre>print(VOWELS[-2:4])</pre>	1
6	Which of the following statement will generate error: a) print("10"+20) b) print("10+20") c) print(10+20) d) None of the above	1

7

What will be the output of the following python code? t=(10)

```
t1=t*2
```

1

	<p>print(t1)</p> <p>a) (10,10) b) (10) c) (100) d) (10),(10)</p>	
8	<p>What will be the output of the following Python code? marks = 50</p> <pre>def Result(marks): print('marks are', marks) marks= 75 print('Changed marks are', marks) Result(marks) print('Now marks are', marks)</pre> <p>a) marks are 50 Changed marks are 75 Now marks are 50</p> <p>b) marks are 50 Changed marks are 50 Now marks are 50</p> <p>c) marks are 50 Changed marks are 75 Now marks are 75</p> <p>d) marks are 50 Changed marks are 50 Now marks are 50</p>	1
9	<p>State whether the following statement is True or False:</p> <p>The else part of try is executed when no exception occurs.</p>	1

10	Which is the incorrect outcome executed from the following code? import random x = 3	1
----	---	---

	<p>N = random.randint (1, x) for i in range (N): print (i, "#", i + 1, end="")</p> <p>a) 0#11#22#3 b) 0#11#2 c) 0#11#22#33#4 d) 0#1</p>	
11	<p>What is the best data type definition for MySQL when a field is alphanumeric and has a fixed length?</p> <p>a) VARCHAR b) CHAR c) INT d) DECIMAL</p>	1
12	<p>A table DATA in mysql has 6 records with 4 fields (attributes) of each record. 3 records are now deleted and 8 new records are added in DATA. In the end one more field is added. What will be cardinality and degree of DATA?</p>	1
13	<p>Which key helps us to establish the relationship between two tables?</p> <p>a) Candidate key b) Foreign key c) Primary key d) Unique key</p>	1
14	<p>Which protocol is used for the transfer of hypertext content over the web?</p> <p>(a) HTML (b) HTTP (c) TCP/IP (d) FTP</p>	1
15	<p>Extend the term NSFNET.</p>	1

16	Which of the following service is not using Packet Switching. a) Sending an email b) Downloading a video from youtube	1
----	---	---

	<p>c) Using Public Switched Telephone Network</p> <p>d) Playing an online game</p>	
	<p>Q17 and 18 are ASSERTION AND REASONING based questions. Mark the correct choice as</p> <p>(a) Both A and R are true and R is the correct explanation for A</p> <p>(b) Both A and R are true and R is not the correct explanation for A</p> <p>(c) A is True but R is False</p> <p>(d) A is false but R is True</p>	
17	<p>Assertion (A):- Text files are processed very fast in comparison to binary files.</p> <p>Reasoning (R):-Binary files contain data in true binary format (machine code)</p>	1
18	<p>Assertion (A) - If the arguments in the function call statement match the number and order of arguments as defined in the function definition, such arguments are called positional arguments.</p> <p>Reasoning (R) - During a function call, the argument list first contains default argument(s) followed by the positional argument(s).</p>	1
SECTION-B		
19	<p>Rewrite the following code in Python after removing all syntax error(s). Underline each correction done in the code.</p> <pre>x=int("Enter value for x:") for y in range[0,11]: if x==y: print x+y else: Print(x-y)</pre>	2
20	<p>Write the output of the following code : def</p> <pre>Output(S1,S2): if (S1+S2)%2==0: return S1+S2</pre>	2

	<pre> else: return S1-S2 LT= [10,15,20,12] A=3 for I in LT: print(Output(I,LT[A]),'#', end=' ') A=A-1 </pre>	
21	<p>Write a Python function that accepts a string and counts the number of upper and lower case letters in a dictionary .</p> <p><i>Sample String</i> : 'Cricket World Cup 2023 in India'</p> <p><i>Expected Output</i> :</p> <pre>{“LOWER”:4,“UPPER”:18}</pre> <p>OR</p> <p>Write a Python function that takes a list and returns a new list with distinct elements from the first list.</p> <p><i>Sample List</i> : [1,2,3,3,3,3,4,2,5]</p> <p><i>Unique List</i> : [1, 2, 3, 4, 5]</p>	2
22	<p>Write the Python statement for each of the following tasks using BUILT-IN functions/methods only:</p> <p>(i) To sort a numeric List object L1 in descending order.</p> <p>(ii) To delete marks of Sumit from a dictionary Marks where names are keys and marks are values.</p>	2
23	<p>Find and write the output of the following python code: def DEFAULT(P</p> <pre> ,Q=100): P=P+Q Q=P-Q print(P,"#",Q) return (P) R=300 </pre>	2

	<p>S=200 R=DEFAULT(R,S)</p> <p>S=DEFAULT(S)</p> <p>Or</p> <p>Find and write the output of the following Python code:</p> <pre>T= ["20", "0", "30", "40"] Counter=3 Total= 0 for I in [7,5,4,6]: newT=T[Counter] Total= float (newT) + I print(Total) Counter=Counter-1</pre>	
24	<p>Hanshika has created a table "FRUITS". Help her to do the following by writing correct MySQL commans/queries:</p> <p>(a) She wants to make the column "FruitName" should not contain duplicate entry.</p> <p>(b) She wants to delete all records where price of fruit is more than 100.</p>	2
25	<p>(a) Write one difference between circuit switching and packet switching.</p> <p>(b) Write the name of the device which is used to connect two dissimilar networks.</p> <p>OR</p> <p>(a) Write one difference between SMTP and POP.</p> <p>(b) Write an example of a URL.</p>	2
SECTION-C		
26	Predict the output of the Python code given below:	3

```

s = 'Computer@Science' n =
len(s)
m = ""
for i in range(0, n):
    if (s[i] >= 'a' and s[i] <= 'm'): m = m +
        s[i].upper()
    elif (s[i] >= 'n' and s[i] <= 'z'): m = m
        + s[i-1]
    elif (s[i].isupper()):
        m = m + s[i].lower() else:
        m = m + '$$'
print(m)

```

27	<p>Write a function in Python to read a text file, Result.txt and displays those lines which contains at least 5 words.</p> <p>OR</p> <p>Write a function in Python COUNTING() which will count “The” words from a text file “Book.txt”</p>	3					
28	<p>(a) Write a function PUSH(D) that accepts a dictionary. Push only those Keys to a stack that have values more than 80 number. For example if dictionary contains</p> <p>D={"ARUN":85,"VARUN":65,"TARUN":95,"MANYA":75}</p> <p>then PUSH() function must print stack as ["ARUN" ,"TARUN"]</p> <p>(b) Write a function POP() that will remove elements one by one. Print “Can not delete” if stack is empty.</p>	3					
29	<p>Consider the table TRANSACTION given below:</p> <p style="text-align: center;">TABLE : TRANSACTION</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">TRNO</td> <td style="text-align: center;">AN O</td> <td style="text-align: center;">AMOUN T</td> <td style="text-align: center;">TYPE</td> <td style="text-align: center;">DOT</td> </tr> </table>	TRNO	AN O	AMOUN T	TYPE	DOT	3
TRNO	AN O	AMOUN T	TYPE	DOT			

T001	101	2500	Withdraw	2017-12-21
T002	103	3000	Deposit	2017-06-01
T003	102	2000	Withdraw	2017-05-12
T004	103	1000	Deposit	2017-10-22
T005	101	12000	Deposit	2017-11-06

Based on the given table, write SQL queries for the following:

- Change the amount as 1500 of all those transactions where amount is less than or equal to 2000.
- Display all details of transactions which happened before 01-12-2007.
- Display sum of amount of those having ANO as 103.

30 Give output for following SQL queries as per given tables- 3

Table : ITEM

(i) SELECT ItemName, MAX(Price),Count(*) FROM
ITEM GROUPBY ItemName;

(ii) SELECT ItemName, Price*100
FROM ITEM WHERE ItemName LIKE "%ona%"

(iii) SELECT I_ID
FROM ITEM ORDER BY Price ASC;

SECTION-D

31 Consider the tables GARMENT and FABRIC given below: 4

Table : GARMENT

GCODE	Description	Price	FCODE	READYDATE
-------	-------------	-------	-------	-----------

10023	PENCIL SKIRT	1150	F03	19-DEC-08
10001	FORMAL SHIRT	1250	F01	12-JAN-08
10012	INFORMAL SHIRT	1550	F02	06-JUN-08
10024	BABY TOP	750	F03	07-APR-07
10090	TULIP SKIRT	850	F02	31-MAR-07
10019	EVENING GOWN	850	F03	06-JUN-08
10009	INFORMAL PANT	1500	F02	20-OCT-08
10017	FORMAL PANT	1350	F01	09-MAR-08
10020	FROCK	850	F04	09-SEP-07
10089	SLACKS	750	F03	31-OCT-08

I_ID	ItemName	Manufacturer	Price
		Table :FABRIC	
PC01	Personal Computer	ABC	35000
LC05	Laptop	ABC	55000
PC03	Personal Computer	XYZ	32000
PC06	Personal Computer	COMP	37000
LC03	Laptop	PQR	57000

Write SQL queries for the following:

- (I) Display Garment Description, Price and Type of fabric from above tables.
- (II) Display maximum price of SILK garments.
- (III) Display Description , Price of all garments where description 2nd character is "N" and Price is greater than 1525.
- (IV) Insert the following record in table FABRIC.
(F05,"LINEN")

32

Deepak is a Python programmer working for election commission For the coming election he has created a csv file "Election.csv".
The structure of Election.csv is : [Party_Id, Party_Name, Candidate_Name, TotalVote]
Where Party_Id is Party ID (integer)

4

FCODE	TYPE
F04	POLYSTER
F02	COTTON
F03	SILK
F01	TERELENE

Party_name is Party Name (string) Candidate_Name is name of candidate(string) TotalVote is total vote received by the candidate

For efficiently maintaining data of the event, Deepak wants to write the following user defined functions:
 Input() – to accept a record from the user and add it to the file Election.csv. The column headings should also be added on top of the csv file.
 Winner() – to read TotalVotes of each record and display the record which has got maximum number of votes.

As a Python expert, help him complete the task.

SECTION-E

33 CITY CABLE NETWORK has set up its new centre at HYDERABAD for its office and web based activities. It has four buildings as shown in the diagram below:



Block A	25
Block B	50
Block C	125
Block D	10

Center to center distances

Number of Computers

Block A to Block B	50 m
Block B to Block C	150 m
Block C to Block D	25 m
Block A to Block D	170 m
Block B to Block D	125 m
Block A to Block C	90 m

- | | | |
|-------|---|---|
| (i) | Which type of network is this
a)LAN b)PAN c)WAN d)TAN | 1 |
| (ii) | Suggest a cable layout of connections between the blocks. | 1 |
| (iii) | Suggest the most suitable place (i.e. block) to house the server of this organisation with a suitable reason. | 1 |

(iv)

Suggest the placement of the following devices with justification

1

- Repeater

	<ul style="list-style-type: none"> ▪ Hub/Switch 	
(v)	The organization is planning to link its front office situated in a far city in a hilly region where cable connection is not feasible, suggest a way to connect it with reasonably high speed?	1
34	(i) What is a file? Why file is needed?	2
	<p>(ii) Consider a file, SCHOOL.DAT, containing records of the following structure: [SschoolName, TotalStudents, TotalStaff]</p> <p>Write a function, TRANSFER(), that reads contents from the file SCHOOL.DAT and copies only those records where TotalStudents are more than 1000 to the other file BIGSCHOOLS.DAT. The function should return the total number of records copied to the file BIGSCHOOL.DAT.</p>	3
	OR	
	(i) What is file mode. Write python statement to open a binary file so that more records can be added .	
	<p>(ii) A Binary file, BOOKS.DAT has the following structure:</p> <p>{BOOKNO,BOOKNAME,AUTHERNAME,BOOKPRICE}</p> <p>Where BOOKNO is book number, BOOKNAME is name of the book , AUTHERNAME is name of auther and BOOKPRICE is price of book.</p> <p>Write a user defined function, UPDATE(BOOKNAME), that accepts BOOKNAME as parameter and updates the price of all the records of BOOKNAME as 500 from the binary file BOOKS.DAT.</p>	
35	(i) Write a sql query to display all records of table SHOP where field Item_brand has no values (blank)	1
	<p>(ii) Hrیمان wants to write a program in Python to delete the record input by user (roll no) in the table named BALVATIKA in MYSQL database, KVS : Each record contains the following fields:</p> <ul style="list-style-type: none"> • rno(Roll number)- integer • name(Name) - string • DOB (Date of birth) – Date • Fee – decimal 	4

	<p>Note the following to establish connectivity between Python and MySQL:</p> <ul style="list-style-type: none"> • Username - root • Password – KVR@321 • Host - localhost <p>the value of field rno, has to be accepted from the user. Help Hriman to write the program in Python.</p>	
	OR	
	(i) What is the role of primary key. Explain with one example.	
	<p>(ii) Raman has created table named NATIONALSPORTS in MYSQL database, SPORTS :</p> <p>Each record contains the following fields:</p> <ul style="list-style-type: none"> • GameID(Game number)- integer • Gamename(Name of game) - string • DOG(Date of Game) – Date • Venue(Venue of game) – decimal <p>Note the following to establish connectivity between Python and MySQL:</p> <ul style="list-style-type: none"> • Username - root • Password – KVR@321 • Host - localhost <p>Raman , now wants to display all records of venue “Hyderabad”. Help him to write the python program.</p>	
	<p>(ii) Hriman wants to write a program in Python to delete the record input by user (roll no) in the table named BALVATIKA in MYSQL database, KVS : Each record contains the following fields:</p> <ul style="list-style-type: none"> • rno(Roll number)- integer • name(Name) - string • DOB (Date of birth) – Date • Fee – decimal 	

Note the following to establish connectivity between Python and MySQL:

- Username - root
- Password – KVR@321
- Host - localhost

the value of field rno, has to be accepted from the user. Help Hriman to write the program in Python.