

Assignments for Class X

S.No.	SUBJECT	ASSIGNMENT
1	English Language	<p>1) TRANSFORMATION OF SENTENCES :</p> <p>a) AS SOON AS SHE REMINDED ME WHERE I HAD KEPT THE KEYS, I FOUND THEM. (USE : HARDLY)</p> <p>b) MY FRIEND SAID , “ DID YOU WATCH TELEVISION LAST NIGHT?” (CHANGE TO INDIRECT SPEECH)</p> <p>c) HE WAS SO OLD THAT HE COULD HAVE BEEN MY GRANDFATHER. (BEGIN WITH : HE WAS OLD ENOUGH)</p> <p>d) THE BAG WAS VERY HEAVY AND IT COULD NOT BE CARRIED BY THE CHILD. (USE: TOO)</p> <p>e) IF I TELL YOU THE SECRET, YOU MUST PROMISE ME NOT TO TELL IT TO ANYONE ELSE. (USE :UNLESS)</p> <p>f) CORRECT THE ERRORS IN THE FOLLOWING SENTENCES(IN THE USE OF ADVERBS)</p> <p>IT IS BITTER COLD TODAY. HE WAS ENOUGH KIND TO HELP US IN TIME. HE WAS LYING SENSELESSLY. I SHALL BE VERY OBLIGED TO YOU. THE CITY IS NAMED AS AGRA.</p> <p>2) FILL IN THE BLANKS WITH APPROPRIATE PREPOSITIONS:</p> <p>a) MY FATHER IS ANGRY _____ MY ELDER SISTER.</p> <p>b) THE TEACHER WAS ANGRY _____ HIS RUDE BEHAVIOUR.</p> <p>c) I DIFFER _____ YOU ON THIS POINT.</p> <p>d) THIS PICTURE DIFFERS _____ THE ONE I GIFTED YOU.</p> <p>e) I PERFECTLY AGREE _____ YOU ON THIS POINT.</p> <p>f) I PERFECTLY AGREE _____ YOUR PROPOSAL.</p> <p>3) WRITE A SHORT STORY BEGINNING WITH : “ HEARING ME ABOUT, MY FATHER RUSHED OUT OF THE HOTEL ROOM.”</p> <p>4) a) WRITE A NOTICE TO BE PUT UP ON THE SCHOOL NOTICE BOARD REGARDING AN AWARENESS CAMP TO BE ORGANISED BY THE STUDENTS COUNCIL OF YOUR SCHOOL WITH RESPECT TO ‘COVID-19’ PREVENTION.</p> <p>b) WRITE AN EMAIL TO THE PRINCIPAL OF YOUR NEIGHBOURING SCHOOLS INVITING PARTICIPATION OF STUDENTS AND TEACHERS ALIKE FOR THE ABOVE MENTIONED AWARENESS CAMP.</p>
2	Physics	Read chapter 1: Force (page 1-6) from concise physics.
3	Chemistry	To solve last 10 years ICSE papers on the following chapters: Chapter 1 Periodicity Chapter 2 Chemical bonding Chapter 3B Analytical chemistry Chapter 9 Practical Chemistry

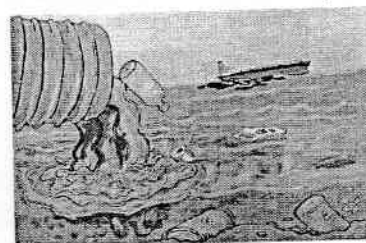
		The 10 years ICSE papers are available as back questions of the corresponding chapters in your text book.				
4	Geography	<p>QUESTION 1 Draw, colour and write the meaning of the following conventional symbols and signs: (pg 18 to 22 in your text book). Permanent hut,temporary hut,types of settlements,antiquities,temple,chhatri,graves. PO,TO,Telegraph lines,PTO,PS,DB,IB,RH,CG,CH,RS. Boundaries-international,state,district,tehsil,forest. Roads- metalled,unmetalled,cart track,pack track,footpath. Railways- narrow and broad gauge,railway line in a station,cutting with a tunnel,bridge without a causeway. Stream,river,river dry with water channel,river island and rocks,disappearing stream,meander,seasonal stream,confluence,Falls,broken grounds. Drainage patterns Canal,tanks,tanks(dry),wells,tubewell,spring,dam(earthen),causeway,island,resevoir. Spot height,triangulated height,Bench mark,relative height or depth,contours,form lines,depression, surveyed tree,dense forest,open scrub,open jungle,protected forest,fireline, stony waste, sheet rock, rock outcrop, sand dunes, stone quarry, brick kiln, lime kiln, telegraph line, reserved forest, embankment.</p> <p>QUESTION 2 Draw the important man-made features and natural features (pg-41):</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="width: 50%;">MAN-MADE FEATURES</th> <th style="width: 50%;">NATURAL FEATURES</th> </tr> </thead> <tbody> <tr> <td style="height: 50px;"></td> <td style="height: 50px;"></td> </tr> </tbody> </table> <p>NOTE-Do the assignment in the school exercise copy(long copy).</p>	MAN-MADE FEATURES	NATURAL FEATURES		
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5.	History&Civics	<p>1. A CONSTITUENT ASSEMBLY HAD BEEN SET UP TO ENACT THE CONSTITUTION OF FREE INDIA. IN THIS CONTEXT ANSWER THE FOLLOWING QUESTIONS:</p> <p>A. WHAT IS MEANT BY THE TERM ‘CONSTITUTION’? B. JANUARY 26 IS REFFERED TO AS THE DATE OF COMMENCEMENT OF THE NEW CONSTITUTION. WHAT IS THE IMPORTANCE OF JANUARY 26 IN INDIA’S STRUGGLE FOR FREEDOM?</p> <p>2. WITH REFERENCE TO GANDHIAN NATIONALISM ,ANSWER THE FOLLOWING QUESTIONS,</p> <p>A. NAME THE THREE MAJOR MOVEMENTS OF GANDHIJI. B. BRIEFLY HIGHLIGHT ON THE IDEALS OF GANDHIJI.</p>				

6.	Computer Applications	<p>1. Predict the output: i) <code>int a=7,b=6;</code> <code>a +=a++ % b++ * a + b++ * --b</code> ii) <code>int a=0,b=10,c=40;</code> <code>a= --b + c++ + b;</code></p> <p>2. Write the programs in java to display the first ten terms of the following series: i) 1,4,9,16,..... ii) 4,8,16,32 ,</p> <p>3. Using switch statement , write a menu driven program to: (a) find and display all the factors of a number input by the user. (b) find and display the factorial of a number input by the user (the factorial is the product of all integers less than or equal to the number)</p> <p>4. Write a program to display all the 'Buzz numbers ' between p and q (where $p < q$). A Buzz number is a number which ends with 7 or is divisible by 7.</p> <p>5. A Twin prime are those numbers which are prime and having a difference of two (2) between the two prime numbers. The first few twin prime pairs are :(3, 5), (5, 7), (11, 13), (17, 19), (29, 31), (41, 43), (59, 61), (71, 73), (101, 103), (107, 109), (137, 139), ...etc. Write a Java program to find all twin prime numbers less than 100.</p>
7.	Bengali	<p>প্রকল্প: ১. জলসঙ্কট ও তার প্রতিকার। ২. 'ক্যানভাসার' গল্পটির নাট্যরূপ (সংলাপ) লেখ।</p>
8.	Hindi	<p>विलोम,पर्यायवाची, मुहावरें याद करें।</p>
9.	Commercial Studies	<p>CHAPTER 2: MARKETING AND SALES</p> <ol style="list-style-type: none"> 1) DEFINE MARKETING – GIVE THE TRADITIONAL CONCEPT AND MODERN CONCEPT. 2) WHICH ARE THE DIFFERENT ELEMENTS OF MODERN CONCEPT OF MARKETING? 3) STATE THE DIFFERENT CHARACTERISTICS OF MARKETING. (EXPLAIN ANY 6 POINTS) 4) DIFFERENTIATE BETWEEN MARKETING AND SELLING. (WRITE THE BASIS OF DISTINCTION AND DIFFERENTIATE ON THAT POINT. (ATLEAST 5 -6 POINTS.) 5) GO THROUGH THE CHAPTER OF FINAL ACCOUNTS OF SOLE, PROPRIETORSHIP. <ul style="list-style-type: none"> • MEANING OF TRADING ACCOUNT. • THE PROFIT AND LOSS ACCOUNT. • THE BALANCE SHEET.

10. Chapter 15: Pollution

Q1. Given alongside is a representation of a kind of pollution. Study the same & answer the following questions:

- i. Name the kind of pollution.
- ii. List any three major sources of this pollution.
- iii. Describe any two harmful effects of such type of pollution.
- iv. Give two examples of gaseous air pollutants.
- v. State any two objectives of 'Swachh Bharat Abhiyan'.



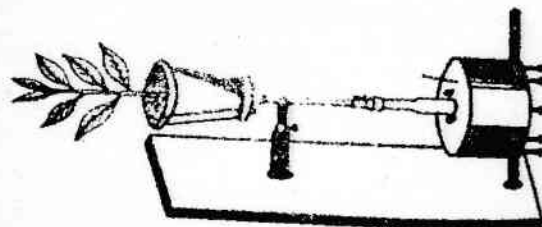
Q2. List two major harmful effects of each of the following:

- i. Rivers contaminated with sewage.
- ii. Too much gaseous exhausts containing CO_2 and SO_2 .
- iii. Pesticides such as DDT used in agriculture.
- iv. Prolonged noise such as the one produced by cracker

Chapter 7: Chemical Coordination in Plants

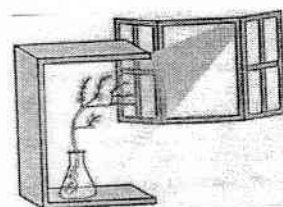
Q3. Given alongside is the diagram of a particular instrument. Study the same and then answer the questions that follow:

- i. Name the instrument.
- ii. What is the use of this instrument in the laboratory?
- iii. How is it used to demonstrate the answer stated in (ii) above?
- iv. What will you observe in the plant if it is kept as it is for a few days?
- v. Give a reason of your answer in (iv) above.



Q4. Study the diagram given alongside and answer the following questions:

- i. Name the phenomenon.
- ii. Define the phenomenon mentioned above .
- iii. Name the hormone that play an important role in the above mentioned phenomenon.
- iv. Name the most studied form of Gibberellins.
- v. Name the phytohormone that promote senescence.



Chapter 1: Cell

Q5. Draw the labelled diagram of a plant cell and an animal cell.

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11. SUBJECT: MATHEMATICS ASSIGNMENT

Commercial Mathematics: Banking – Recurring Deposit Accounts

The *recurring (or cumulative) deposit account* is opened by an individual who wishes to save a certain sum of money (i.e. *monthly installment*) for *every month* for a specified number of months or years. At the end of that time period (i.e. the *maturity period*) the person gets the final amount (i.e. the *matured value*) which is the sum of his/her total investment and the interest paid by the Bank or Post Office etc. at a fixed rate.

i.e., **Matured Value = Total investment + Interest**

Calculation of interest and matured value on recurring deposit account:

$$I = P \cdot \frac{n \cdot (n + 1)}{2 \cdot 12} \cdot \frac{r}{100}$$

and

$$M.V = P \cdot n + I = P \cdot n + P \cdot \frac{n \cdot (n + 1)}{2 \cdot 12} \cdot \frac{r}{100}$$

Where I = interest (simple interest), P = monthly installment, n = number of months, r = rate of interest per annum, M.V = maturity value or matured value

Clearly, **I = M.V – P . n**

Let us consider the following situation ----

Example 1: Samson opened a recurring deposit account for a period of 2 years where bank pays interest at the rate of 6% p.a and the monthly installment is Rs 1,000 per month. Let us find (i) the interest earned (ii) the matured value. [ICSE 2015]

Here,

P = monthly investment = Rs 1,000

n = no. of months = 2 x 12 = 24 months

r = rate of interest = 6% p.a

$$(i) I = P \cdot \frac{n \cdot (n + 1)}{2 \cdot 12} \cdot \frac{r}{100} = \text{Rs } \frac{1000 \cdot 24 \cdot 25 \cdot 6}{2 \cdot 12 \cdot 100} = \text{Rs } 1,500$$

$$(ii) \text{Matured Value} = M.V = P \cdot n + I = \text{Rs } (1,000 \cdot 24 + 1,500) = \text{Rs } (24,000 + 1,500) = \text{Rs } 25,500$$

Solve the following questions:

Q1. Shweta deposits Rs 350 per month in a recurring deposit account for one year at the rate of 8% p.a. Find the amount she will receive at the time of maturity.

Q2. Mrs. Goswami deposits Rs 1,000 every month in a recurring deposit account for 3 years at 8% interest per annum. Find the matured value. [ICSE 2009]

Q3. Sonia had a recurring deposit account in a bank and deposited Rs 600 per month for $2\frac{1}{2}$ years. If the rate of interest was 10% p.a, find the maturity value of this account. [ICSE 2018]

In all the questions mentioned above, monthly investment (P), no. of months (n), rate of interest (r) were given. So, to find the interest and the matured value we will put the values of P , n , r in the formula and simplify the data.

Now, we will discuss those cases in which either P or r or n will be missing and in place of that either I or $M.V$ will be given. Here from the given information we need to frame an equation to find the missing data.

Let us consider the following cases -----

Example 2: Rajan deposits Rs 450 per month in a bank paying 12% interest per annum on recurring deposits. On maturity if he receives Rs 12,150 then let us find the time period for which the account is held.

Here,

P = monthly investment = Rs 350

r = rate of interest = 12% p.a

$M.V$ = maturity value = Rs 12,150

Let the no. of months be n .

We have,

$$P \cdot n + I = P \cdot n + P \cdot \frac{n \cdot (n+1)}{2 \cdot 12} \cdot \frac{r}{100} = M.V$$

$$\Rightarrow 450 \cdot n + \frac{450 \cdot n \cdot (n+1) \cdot 12}{2 \cdot 12 \cdot 100} = 12150$$

$$\Rightarrow 450 \cdot n + \frac{9 \cdot n \cdot (n+1)}{4} = 12150$$

$$\Rightarrow 1800n + 9n(n+1) = 48600$$

$$\Rightarrow 9n^2 + 1809n - 48600 = 0$$

$$\Rightarrow 9(n^2 + 201n - 5400) = 0$$

$$\Rightarrow n^2 + 201n - 5400 = 0$$

$$\Rightarrow n^2 + 225n - 24n - 5400 = 0$$

$$\Rightarrow n(n + 225) - 24(n + 225) = 0$$

$$\Rightarrow (n + 225)(n - 24) = 0$$

$$\Rightarrow n + 225 = 0 \text{ or } n - 24 = 0$$

$$\Rightarrow n = -225 \text{ which is not possible or } n = 24$$

Therefore, time period is 24 months i.e. 2 years

Example 3: Samir deposits Rs 600 per month in a recurring deposit account for 2 years. If he receives Rs 5,450 at the time of maturity, find the rate of interest paid by the bank per annum.

Here,

P = monthly investment = Rs 600

n = no. of months = $2 \times 12 = 24$

$M.V$ = matured value = Rs 15,450

Let the rate of interest be r % p.a

We have,

$$P \cdot n + I = P \cdot n + P \cdot \frac{n \cdot (n+1)}{2 \cdot 12} \cdot \frac{r}{100} = M.V$$

$$\Rightarrow 600 \cdot 24 + \frac{600 \cdot 24 \cdot (24 + 1) \cdot r}{2 \cdot 12 \cdot 100} = 15450$$

$$\Rightarrow 14400 + 150r = 15450 \text{ [after simplification]}$$

$$\Rightarrow 150r = 15450 - 14400$$

$$\Rightarrow 150r = 1050$$

$$\Rightarrow r = 1050 / 150$$

$$\Rightarrow r = 7$$

Therefore the rate of interest is 7% p.a

Example 4: Richard has a recurring deposit account in a post office for for 3 years at 7.5% p.a simple interest. If he gets Rs 8,325 as interest at the time of maturity, find (i) the monthly installment, (ii) the amount of maturity. [ICSE 2017]

Here,

$r =$ rate of interest = 7.5% p.a

$n =$ no. of months = 36

$I =$ interest = Rs 8,325

Let the monthly installment be Rs P

We have,

$$P \cdot \frac{n \cdot (n+1)}{2 \cdot 12} \cdot \frac{r}{100} = I$$

$$\Rightarrow \frac{P \cdot 36 \cdot (36 + 1) \cdot 7.5}{2 \cdot 12 \cdot 100} = 8325$$

$$\Rightarrow P = \frac{8325 \cdot 2 \cdot 12 \cdot 100 \cdot 10}{36 \cdot 37 \cdot 75}$$

$$\Rightarrow P = 2000 \text{ [after simplification]}$$

Therefore the monthly installment is Rs2,000.

Solve the following questions:

Q4. Mr. S Mukherjee has a recurring deposit account in State Bank of India of Rs 2,000 per month at the rate of 10% p.a. If he gets Rs 83,100 at the time of maturity, find the total time for which the account was held.

Q5. Sumita has recurring deposit account for Rs 2,000 per month at 10% p.a. If she gets Rs 6,770 at the time of maturity, find the total time for which the account was held. [ICSE 2005]

Q6. Mohan has a recurring deposit account in a bank for 2 years at 6% p.a simple interest. If she gets Rs 1,200 as interest at the time of maturity, find (i) the monthly instalment, (ii) the amount of maturity [ICSE 2016]

Q7. Mr. Gupta opened a recurring deposit account in a bank. He deposited Rs 2,500 per month for 2 years. At the time of maturity he got Rs 67,500. Find (i) total interest earned by Mr. Gupta, (ii) the rate of interest per annum. **ICSE 2010]**

Q8. Shahrukh opened a recurring deposit account in a bank and deposited Rs 800 per month for $1\frac{1}{2}$ years. If he received Rs 15,084 at the time of maturity, find the rate of interest per annum. **[ICSE 2014]**

Q9. Mr. Ghosh gets RS 6,455 at the end of one year at the rate of 14% p.a in a recurring deposit account. Find the monthly instalment.

Q10. Mohan deposits Rs 80 per month in a cumulative deposit account for six years. Find the amount payable to him on maturity if the rate of interest is 6%p.a.

Q11. Mr. Britto deposits a certain sum of money each month in a recurring deposit account of a bank. If the rate of interest is 8% p.a And Mr. Britto gets Rs 8,088 from the bank after 3 years, find the value of his monthly installment. **[ICSE 2013]**

Q12. Priyanka has a recurring deposit account of Rs 1,000 per month at 10% p.a. If she gets Rs 5,550 as interest at the time of maturity, find the total time for which the account was held. **[ICSE 2018]**

Q13. Rekha opened a recurring deposit account for 20 months. The rate of interest is 9% per annum and Rekha receives Rs 441 as interest at the time of maturity. Find the amount Rekha deposited each month. **[ICSE 2019]**

Q14. Amit deposits Rs 1600 per month in a bank for 18 months in a recurring deposit account. If he gets Rs 31,080 at the time of maturity, what is the rate of interest per annum? **[ICSE 2020]**

