



**ASIAN INTERNATIONAL SCHOOL**  
**SUMMER HOLIDAY HOMEWORK**  
**CLASS X**  
**SESSION: 2022-2023**

<b>SUBJECT</b>	<b>TASK ASSIGNED</b>	<b>21<sup>st</sup> CENTURY SKILL</b>
<b>ENGLISH</b>	1. TED talk 2. Worksheet comprehension 2 & 3	Cognitive skills, oratory skills, creative skills, critical thinking skills
<b>2<sup>ND</sup> LANGUAGE (HINDI)</b>	कवि 'सूरदास' भक्ति काल के सर्वश्रेष्ठ वात्सल्य कवि माने जाते हैं । ठीक उसी प्रकार मीरा और रसखान भी उसी काल के महान कृष्ण भक्त कवयित्री एवं कवि हैं। अतः मीरा और रसखान का भक्तिकालीन वर्णन करते हुए उनका चित्र भी लगाएँ ।	Cognitive skills
<b>2<sup>ND</sup> LANGUAGE (BENGALI)</b>	Online এবং Offline পড়াশুনায় তোমার অভিজ্ঞতা- এই বিষয় টিকে নিয়ে তোমার মতবাদের ওপর একটি কথোপকথন লেখ বন্ধুর সাথে । (এই প্রকল্পটি বানাতে হাতের লেখা সুন্দর করবে এবং শুদ্ধ বানানের সাহায্যে এটি শেষ করবে।)	Communication skills
<b>MATHEMATICS</b>	CBSE activities/projects (selected).	Thinking skills, creative skills, problem solving skills
<b>SCIENCE</b>	1. Practical file preparation, 2. Case study questions	Creativity, Logical Thinking and Cognitive Skills.
<b>SOCIAL SCIENCE</b>	Project: consumer awareness	Creativity, information literacy, productivity skills
<b>INFORMATION TECHNOLOGY</b>	Assigned CBSE project on I.T	Creative skills, thinking skills and cognitive skills.

**N.B:** Details of the Projects have been uploaded on ERP as well as shared on the official class What'app group.



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**SUBJECTWISE DETAILS**

**ENGLISH**

1. Think and sculpt of a life lesson you have learnt from any chosen person in your life whom you have met/ heard of/ read only for a pint of time, and shoot a TED talk within 1 minute to 1 minute 30 seconds. Following are a few examples that can help you; you can also choose your own TED talks for help.

[https://www.ted.com/talks/tavi\\_gevinson\\_a\\_teen\\_just\\_trying\\_to\\_figure\\_it\\_out/](https://www.ted.com/talks/tavi_gevinson_a_teen_just_trying_to_figure_it_out/)

[https://www.ted.com/talks/marco\\_tempest\\_the\\_magic\\_of\\_truth\\_and\\_lies\\_and\\_ipods](https://www.ted.com/talks/marco_tempest_the_magic_of_truth_and_lies_and_ipods)

2. Worksheet Comprehension number 2 and 3.

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**HINDI**

कक्षा- दसवीं

ग्रीष्मकालीन अवकाश गृहकार्य -

हिन्दी परियोजना कार्य :-

कवि 'सूरदास' भक्ति काल के सर्वश्रेष्ठ वात्सल्य कवि माने जाते हैं । ठीक उसी प्रकार मीरा और रसखान भी उसी काल के महान कृष्ण भक्त कवयित्री एवं कवि हैं। अतः मीरा और रसखान का भक्तिकालीन वर्णन करते हुए उनका चित्र भी लगाएँ ।

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**BENGALI**

Topic Name:-

Online এবং Offline পড়াশুনায় তোমার অভিজ্ঞতা।

এই বিষয় টিকে নিয়ে তোমার মতবাদের ওপর একটি কথোপকথন লেখ বন্ধুর সাথে ।

(এই প্রকল্পটি বানাতে হাতের লেখা সুন্দর করবে এবং শুদ্ধ বানানের সাহায্যে এটি শেষ করবে)

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**PHYSICS**

**PRACTICALS TO BE WRITTEN IN PRACTICAL FILE:-**

1. Determination of the focal length of: i) Concave mirror ii) Convex lens by obtaining the image of a distant object.
2. Tracing the path of a ray of light passing through a rectangular glass slab for different angles of incidence. Measure the angle of incidence, angle of refraction, angle of emergence and interpret the result

**GENERAL INSTRUCTION FOR THE PRACTICAL WRITING:**

- Students must write their practical experiments in laboratory notebook either in Shoelace file or hardbound file.
- Students must follow the proper format of experiments available in lab manual during writing.
- Diagrams need to be drawn on white page only (Left side) with proper labeling and caption.
- Insert content/index page at the beginning of practical file.
- Put experiment no. for each practical topic/experiment.

**CASE STUDY QUESTIONS**

**Question 1:**

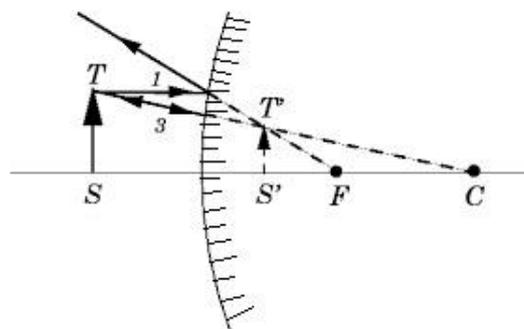
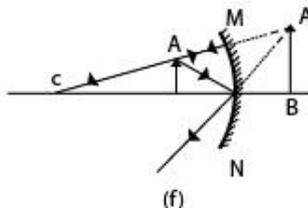
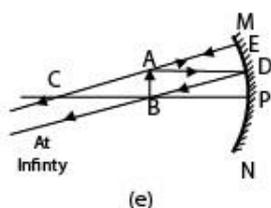
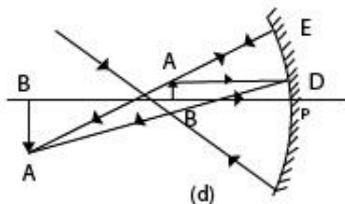
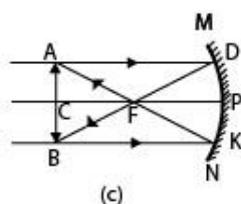
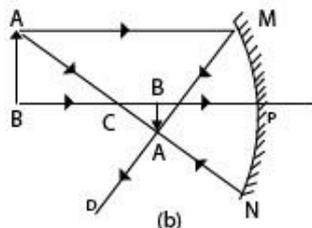
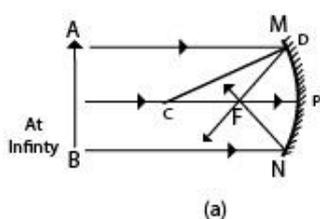
*Read the following and answer any four questions from (i) to (v).*

The spherical mirror forms different types of images when the object is placed at different locations. When the image is formed on screen, the image is real and when the image does not form on screen, the image is virtual. When the two reflected rays meet actually, the image is real and when they appear to meet, the image is virtual.

A concave mirror always forms a real and inverted image for different positions of the object. But if the object is placed between the focus and pole, the image formed is virtual and erect.

A convex mirror always forms a virtual, erect and diminished image. A concave mirror is used as doctor's head mirror to focus light on body parts like eyes, ears, nose etc., to be examined because it can form erect and magnified image of the object. The convex mirror is used as a rear view mirrors in automobiles because it can form an small and erect image of an object.

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**Concave Mirror**

**Convex Mirror**

**(i) When an object is placed at the centre of curvature of a concave mirror, the image formed is**

- (a) larger than the object
- (b) smaller than the object
- (c) same size as that of the object
- (d) highly enlarged.

**(ii) No matter how far you stand from a mirror, your image appears erect. The mirror is likely to be**

- (a) plane
- (b) concave
- (c) convex
- (d) either plane or convex.

**(iii) A child is standing in front of a magic mirror. She finds the image of her head bigger, the middle portion of her body of the same size and that of the legs smaller. The following is the order of combinations for the magic mirror from the top.**

- (a) Plane, convex and concave
- (b) Convex, concave and plane
- (c) Concave, plane and convex
- (d) Convex, plane and concave

**(iv) To get an image larger than the object, one can use**

- (a) convex mirror but not a concave mirror



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- (b) a concave mirror but not a convex mirror
- (c) either a convex mirror or a concave mirror
- (d) a plane mirror.

**(v) A convex mirror has wider field of view because**

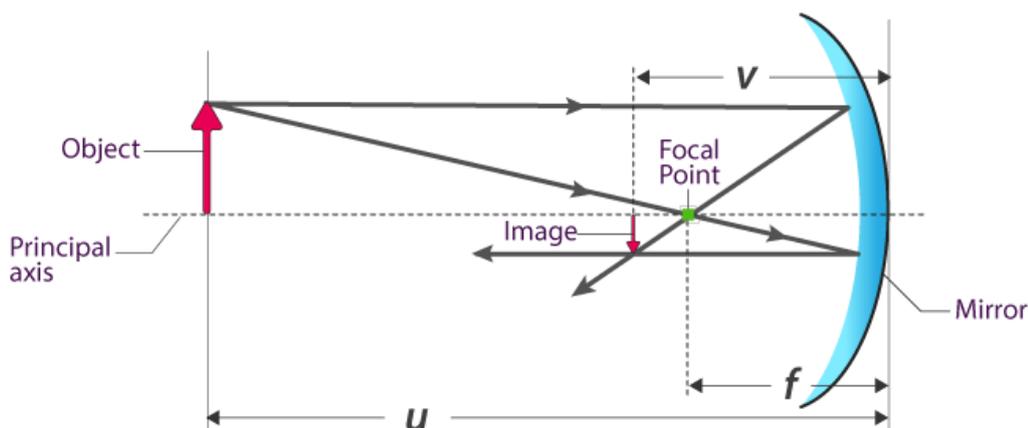
- (a) the image formed is much smaller than the object and large number of images can be seen.
- (b) the image formed is much closer to the mirror
- (c) both (a) and (b)
- (d) none of these.

**Question 2:**

*Read the following and answer any five questions from (i) to (v).*

The relation between distance of an object from the mirror ( $u$ ), distance of image from the mirror ( $v$ ) and the focal length ( $F$ ) is called mirror formula. This formula is valid in all situations for all types of spherical mirrors. The size of image formed by a spherical mirror depends on the position of the object from the mirror. The image formed by a spherical mirror can be bigger than the object, equal to the object or smaller than the object.

The size of the image relative to the object is given by the linear magnification ( $m$ ). Thus, the magnification is given by the ratio of height of image to the height of object. If magnification is negative, image is real and if it is positive, image is virtual.





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1. If the magnification of an image is -2, the characteristic of the image will be :

- (a) virtual and inverted
- (b) real and small
- (c) real and inverted
- (d) virtual and enlarged

2. The mirror formula holds true for :

- (a) concave mirror
- (b) convex mirror
- (c) plane mirror
- (d) All of these

3. A dentist uses a small concave mirror of focal length 3 cm and holds it at a distance of 2 cm from the tooth. What is the magnification of the image ?

- (a) -3
- (b) 3
- (c) 12
- (d) -12

4. A parallel beam of light is made to fall on a concave mirror. An image is formed at a distance of 7.5 cm from the mirror. The focal length of the mirror is :

- (a) 15 cm
- (b) 7.5 cm
- (c) 10 cm
- (d) 3.75 cm

5. The magnification produced by a convex mirror is always positive. This is so because :

- (a) image formed by a convex mirror is real
- (b) image formed by a convex mirror is always smaller in size than the object
- (c) image formed by a convex mirror is always virtual and erect
- (d) none of these

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**CHEMISTRY**

**PRACTICAL FILE PREPARATION**

**INSTRUCTIONS TO MAKE PRACTICAL NOTE BOOK:**

- Students must write their practical experiments in laboratory notebook either in Shoelace file or hardbound file.
- Students must follow the proper format of experiments available in lab manual during writing.
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- Insert content/index page at the beginning of practical file.
- Put experiment no. for each practical topic/experiment.

**LIST OF EXPERIMENTS**

1. A. Finding the pH of the following samples by using pH paper/universal indicator:

- (i) Dilute Hydrochloric Acid
- (ii) Dilute NaOH solution
- (iii) Dilute Ethanoic Acid solution
- (iv) Lemon juice
- (v) Water
- (vi) Dilute Hydrogen Carbonate solution

B. Studying the properties of acids and bases (HCl & NaOH) on the basis of their reaction with:

- a) Litmus solution (Blue/Red)
- b) Zinc metal
- c) Solid sodium carbonate

2. Performing and observing the following reactions and classifying them into:

- A. Combination reaction
- B. Decomposition reaction
- C. Displacement reaction
- D. Double displacement reaction
  - (i) Action of water on quicklime
  - (ii) Action of heat on ferrous sulphate crystals
  - (iii) Iron nails kept in copper sulphate solution
  - (iv) Reaction between sodium sulphate and barium chloride solutions

3. Observing the action of Zn, Fe, Cu and Al metals on the following salt solutions:

- i)  $\text{ZnSO}_4$  (aq)
- ii)  $\text{FeSO}_4$  (aq)
- iii)  $\text{CuSO}_4$  (aq)
- iv)  $\text{Al}_2(\text{SO}_4)_3$ (aq)

Arranging Zn, Fe, Cu and Al (metals) in the decreasing order of reactivity based on the above result.



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**CASE STUDY BASED QUESTIONS**

**CASE-I**

Corrosion is the phenomenon of deterioration of surface of metal in presence of air and moisture. It is a natural process and in the presence of a moist atmosphere, chemically active metals get corroded. This is an oxidation reaction. Rusting is the process where iron corrodes due to exposure to the atmosphere. The main circumstance of corrosion occurs with iron because it is a structural material in construction, bridges, buildings, rail transport, ships, etc. Aluminium is also an important structural metal, but even aluminium undergoes oxidation reactions. However, aluminium doesn't corrode or oxidize as rapidly as its reactivity suggests. Copper (Cu) corrodes and forms a basic green carbonate.



- (i) What is rusting?**
- (ii) Which two metals do not corrode easily?**
- (iii) Write the chemical name of the compound formed on corrosion of silver.**
- (iv) Corrosion is**
- (a) a redox reaction
  - (b) a reduction reaction
  - (c) a displacement reaction
  - (d) an oxidation reaction
- (v) Rusting of iron occurs in the presence of**
- (a) air
  - (b) moisture
  - (c) air and moisture
  - (d) none of these



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**CASE-II**

A chemical reaction is a representation of chemical change in terms of symbols and formulae of reactants and products. There are various types of chemical reactions like combination, decomposition, displacement, double displacement, oxidation and reduction reactions. Reactions in which heat is released along with the formation of products are called exothermic chemical reactions. All combustion reactions are exothermic reactions.

1. **The chemical reaction in which a single substance breaks down into two or more simpler substances upon heating is known as**
  - (a) thermal decomposition reaction
  - (b) photo decomposition reaction
  - (c) electric decomposition reaction
  - (d) both (a) and (c)
2. **The massive force that pushes the rocket forward through space is generated due to the**
  - (a) combination reaction
  - (b) decomposition reaction
  - (c) displacement reaction
  - (d) double displacement reaction
3. **A white salt on heating decomposes to give brown fumes and yellow residue is left behind. The yellow residue left is of**
  - (a) lead nitrate
  - (b) nitrogen oxide
  - (c) lead oxide
  - (d) oxygen gas
4. **Which of the following reactions represents a combination reaction?**
  - (a)  $\text{CaO (s)} + \text{H}_2\text{O (l)} \rightarrow \text{Ca(OH)}_2 \text{ (aq)}$
  - (b)  $\text{CaCO}_3 \text{ (s)} \rightarrow \text{CaO (s)} + \text{CO}_2 \text{ (g)}$
  - (c)  $\text{Zn (s)} + \text{CuSO}_4 \text{ (aq)} \rightarrow \text{ZnSO}_4 \text{ (aq)} + \text{Cu (s)}$
  - (d)  $2\text{FeSO}_4 \text{ (s)} \rightarrow \text{Fe}_2\text{O}_3 \text{ (s)} + \text{SO}_2 \text{ (g)} + \text{SO}_3 \text{ (g)}$
5. **Complete the following statements by choosing correct type of reaction for X and Y.**

**Statement 1:** The heating of lead nitrate is an example of 'X' reaction.

**Statement 2:** The burning of magnesium is an example of 'Y' reaction.

  - (a) X- Combination, Y- Decomposition
  - (b) X- Decomposition, Y-Combination
  - (c) X- Combination, Y-Displacement
  - (d) X- Displacement, Y-Decomposition

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**BIOLOGY**

**PRACTICAL FILE PREPARATION**

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**PRACTICAL TOPICS**

1. Preparing a temporary mount of a leaf peel to show stomata.
2. Experimentally show that carbon dioxide is given out during respiration.
3. Studying (a) binary fission in Amoeba, and (b) budding in yeast and Hydra with the help of prepared slides.
4. Identification of the different parts of an embryo of a dicot seed (Pea, gram or red kidney bean).

**CASE BASED QUESTIONS SOLVING**

**INSTRUCTION:**

- Students must write the answers of case based questions in subject copy only.
1. Heterotrophic nutrition is a mode of nutrition in which organisms obtain readymade organic food from outside sources. The organisms that depend upon outside sources for obtaining organic nutrients are called heterotrophs. Heterotrophic nutrition is of three types: saprophytic, parasitic and holozoic nutrition.
    - (i) In which of the following groups of organisms food material is broken outside the body and absorbed?
      - (a) Mushroom, green plants, Amoeba
      - (b) Yeast, mushroom, bread mould
      - (c) Paramecium, Amoeba, Cuscuta
      - (d) Cuscuta, lice, tapeworm
    - (ii) Which of the following is a parasite?
      - (a) Yeast
      - (b) Taenia
      - (c) Amoeba
      - (d) Earthworm
    - (iii) Which of the following is an example of saprotroph?
      - (a) Grass
      - (b) Mushroom
      - (c) Amoeba
      - (d) Paramecium
    - (iv) Heterotrophic nutrition involves
      - (a) production of simple sugar from inorganic compounds
      - (b) utilisation of chemical energy to prepare food

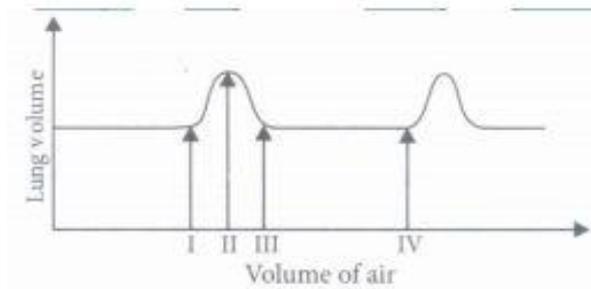


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- (c) utilisation of energy obtained by plants
- (d) all of these.
- (v) In Paramecium, food enters the body through
  - (a) mouth
  - (b) pseudopodia
  - (c) cilia
  - (d) cytostome

2. We need energy to perform various activities. This energy is derived from the catabolism of various components of food, e.g., proteins, carbohydrates, fats, etc. Oxygen is required for catabolic processes and carbon dioxide is released in the process. So, the body requires a continuous exchange of gases, oxygen from the atmosphere is taken inside and carbon dioxide produced is given out. In human beings, respiratory pigment called haemoglobin present in RBCs has very high affinity for oxygen. In tissues, exchange of gases occurs between oxygenated blood and tissue cells.
- (i) People living at sea level have around 5 million RBCs per cubic millimetre of their blood whereas those living at an altitude of 5400 metres have around 8 million. This is because at high altitude
    - (a) people eat more nutritive food, therefore more RBCs are formed
    - (b) people get pollution-free air to breathe and more oxygen is available
    - (c) atmospheric  $O_2$  level is less and hence more RBCs are needed to absorb the required amount of  $O_2$  to survive
    - (d) there is more UV radiation which enhances RBC production.
  - (ii) The given graph illustrates the changes in lung volume during the process of breathing .

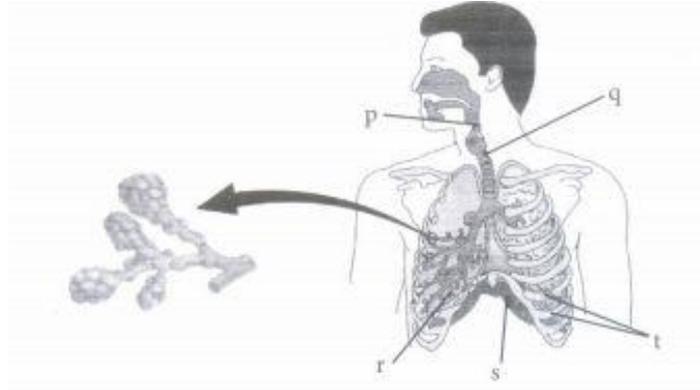


The change from II to III indicates the

- (a) movement of diaphragm away from the lungs
  - (b) expansion of the thoracic cavity
  - (c) movement of air out of the lungs
  - (d) expansion of ribs.
- (iii) Which one of the following is a possibility for most of us in regard to breathing, by making a conscious effort?
- (a) One can breathe out air totally without oxygen.
  - (b) One can breathe out air through Eustachian tube by closing both nose and mouth.
  - (c) One can consciously breathe in and breathe out by moving the diaphragm alone, without moving the ribs at all.
  - (d) The lungs can be made fully empty by forcefully breathing out all air from them.
- (iv) Refer to the given figure and answer the following question .



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Which of these parts

(I) are the actual sites of respiratory gas exchange?

(II) is the common passage for air and food?

(III) is provided with incomplete cartilaginous rings?

(IV) relaxes and gets back to its original shape during expiration?

(v) moves upwards and outwards during inspiration?

(a) (I) - s, (II) - p, (III) - q, (IV) - r, (V) - t      (c) (I) - t, (II) - q, (III) - r, (IV) - s, (V) - P

(b) (I) - r, (II) - p, (III) - q, (IV) - s, (V) - t      (d) (I) - p, (II) - q, (III) - r, (IV) - s, (V) - t

(v) Which of the following sequences is correct to initiate inspiration?

(I) The contraction of intercostal muscles raises the ribs and sternum

(II) Volume of thorax increases

(III) Intra-thoracic pressure of the lungs decreases

(IV) Diaphragm contraction

(v) Air rushes into lungs

(a) (I), (II), (IV), (V), (III)      (b) (I), (II), (III), (IV), (V)

(c) (I), (IV), (II), (III), (V)      (d) (V), (I), (II), (III), (IV)

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**MATHEMATICS**

**ACTIVITIES TO BE DONE IN ACTIVITY FILE (ANY THREE):**

1. To obtain the conditions for consistency of a system of linear equations in two variables by graphical method.
2. To verify the Pythagoras Theorem by the method of paper folding, cutting and pasting
3. To make a right circular cylinder of given height and circumference of base
4. To make a cone of given slant length ( $l$ ) and base circumference ( $2\pi r$ ).
5. To give a suggestive demonstration of the formula for the lateral surface area of a cone.

**INSTRUCTIONS TO MAKE PRACTICAL NOTE BOOK:**

- Students must write their activities in laboratory notebook either in Shoelace file or channel file.
- Students must follow the proper format available in the manual during writing.
- Diagrams/Pictures need to be drawn on white page only (Left side) with proper labeling and caption.
- Insert content/index page at the beginning of the activity file. Put activity no. for each topic.
- Proper calculation must be shown along the diagrams in the file itself.
- Students are requested to download the Mathematics lab manual for reference



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(NCERT PUBLICATION or CBSE PUBLICATION; page 10 , )

Link: [https://cbseacademic.nic.in/web\\_material/CurriculumMain23/Sec/Maths\\_Sec\\_2022-23.pdf](https://cbseacademic.nic.in/web_material/CurriculumMain23/Sec/Maths_Sec_2022-23.pdf)

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**SOCIAL SCIENCE**

<b>SUBJECT</b>	<b>TOPIC</b>	<b>GUIDELINES</b>
<b>Social Science</b>	<p style="text-align: center;"><b>Consumer Awareness</b></p> <p>(Project content should be covered within 15 pages including cover sheet, acknowledgement, Content, Bibliography)</p> <p>Omit using colours like Red, pink, orange</p> <p>Colours which could be used – Blue, Brown, Green, Violet, Black</p> <p>Project should be done in Practical Sheets and tied in a lace file (provided by the school).</p>	<p>The project should be done in the following chronology :</p> <p>Cover Page – Name, Class, Section, Roll, Regn. No.( to be kept blank) Acknowledgement Content Introduction – Meaning of Consumer Concept of Consumer Protection and common mal Practices Need for Consumer Protection Causes of Consumer Exploitation Rights of Consumers Responsibilities of Consumers Consumer Protection Act, 1986 – Its Salient Features Goods and Services covered under COPRA 1986 Conclusion Bibliography</p> <p>(Project should contain relevant information as guided above with pictures)</p>

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**INFORMATION TECHNOLOGY**

1. Create a poster for “Air Pollution” in MS-Word the following features.
  - a. Font face
  - b. Font size
  - c. Font colour
  - d. Header and Footer
  - e. Images
2. Create a list of 10 students by inserting a table in MS-Word with the following fields
  - a. Sr. No.
  - b. Student Name
  - c. Father’s Name
  - d. City
3. Explain the styles given in the Styles and Formatting Window for writer and paste the screenshot of the window also.
4. In Mail Merge, the list of recipients can be saved in the *Save Address List* window.

**Match the following**

<b>Column A</b>	<b>Column B</b>
Main Document	Viewing individual letters
Recipients' Entry List	Mail Merge Recipients
Preview Letter	Merged letter
Edit Recipients' List	Body of the letter
Complete the Merge	New Address List

5. **Objective:** Creating templates in OO Writer and saving for distribution.

**Task:** Create a document that looks like a screenshot and save as a template. Follow below-given instructions:



**ASIAN INTERNATIONAL SCHOOL**  
**SUMMER HOLIDAY HOMEWORK**  
**CLASS X**  
**SESSION: 2022-2023**

**[SCHOOL NAME]**

**[SCHOOL ADDRESS]**

**SCHOOL  
LOGO**

This certificate is awarded to Mast./Ms. [Name of Student] of class [class] in honor of his/her securing the [rank] position in the event/competition [name of competition/event] occasion [occasion] conducted on [date.]

Principal

Competition Judge

Master in-charge

**Instructions:**

- Apply page borders as displayed in the screenshot. Apply border colour as per your choice.
- Page orientation must be landscape.
- Give your desired formatting for school name, school address, and text written in the certificate.
- Save your file as a template and give the name certificate template.