

# GURU HARKRISHAN PUBLIC SCHOOL

## HOLIDAYS HOME WORK

### CLASS XII

(2024-25)

#### Subject :Informatics Practices

#### WEEK 1

Write the programmes for the followings using python IDLE. Take print outs for practical file.

1. To create a series using list.
2. To create a series Using range() method.
3. To create a series with range () and for loop.
4. To create a series to access single and multiple values based on index.
5. To create a series to perform indexing, slicing and accessing data from a series.
6. To create a series from dictionary.
7. To create a series using head() and tail() functions on series.(3 programmes)
8. Consider the given data set of 'teacher' with the following structure:

NAME	"RAJNI	"RENU	"NIDHI	"ROHIT	NAVDEEP	KIRANJOT	Baljot
AGE	50	60	69	75	85	90	56

- (I) Create a series with index as NAME and AGE as values from the given data set teacher
- (II) Display the records of those teachers who have age greater than 85.
- (III) Display the records of those teachers who have age less than equal to 75.
- (IV) Increase the age by 5 whose name is KIRANJOT.

#### WEEK 2

##### MY SQL

<https://www.youtube.com/watch?v=aPVIgOgDHoI>

<https://www.youtube.com/watch?v=-PaPJ87u3qY>

<https://youtu.be/CtnOf06EaWY?si=FOV9R7HvrJDbr9DG>

1. Create a database.
- 2.create a table and insert records in the table.(Name of table as per your choice)  
After creating a table write 10 Sql Queries using **select., where, order by, between ,like, update and Alter table** command.
- 3.Write 10 queries of my sql using function.

#### WEEK 3

create an attractive cover page of your practical file and project file.

Prepare project synopsis on the given topic.

[https://www.youtube.com/watch?v=eoeCe57Y\\_NM](https://www.youtube.com/watch?v=eoeCe57Y_NM)

#### WEEK 4

Watch the videos and Write 6 six programs in python of list, tuple and dictionary.(2 programs from each topic)

Link1

<https://www.youtube.com/watch?v=4Q0pW8XB>

Okc

Link2

<https://www.youtube.com/watch?v=NMf0UXMapow&t=32s>

## BIOLOGY

<p><b>NCERT Book</b> <i>Theme:</i> Human health and diseases</p> <p><b>Link1</b> <a href="https://www.who.int/news-room/fact-sheets/detail/malaria">https://www.who.int/news-room/fact-sheets/detail/malaria</a></p> <p>Link 2 <a href="https://www.healthline.com/health/malaria#outlook">https://www.healthline.com/health/malaria#outlook</a></p> <p>Link 3 <a href="http://www.idph.state.il.us/envhealth/pcm-osquitoes.htm">http://www.idph.state.il.us/envhealth/pcm-osquitoes.htm</a></p> <p>LINK-4 <a href="https://www.youtube.com/watch?v=Qh6n4AgSDP8">https://www.youtube.com/watch?v=Qh6n4AgSDP8</a></p> <p>LINK-5 <a href="https://www.youtube.com/watch?v=1V0_OaBhk5Q">https://www.youtube.com/watch?v=1V0_OaBhk5Q</a></p> <p>LINK-6</p>	<p><b>WEEK 1</b></p> <p>•Read your textbook and other resources from the internet to get the information about malaria. After reading Link 1&amp; Link 2:</p> <ul style="list-style-type: none"><li>❖ Find out the microbe responsible for the same and its life cycle.</li><li>❖ Also list the symptoms of malaria and ways to prevent the spread.</li><li>❖ Try to find out the treatment given in malaria and is there any correlation found in the treatment of malaria and COVID 19</li><li>❖ After reading Link 3 find out:<ul style="list-style-type: none"><li>❖ What other diseases spread by way of mosquito bites. Find out their causative pathogen and the symptoms. Also collect information about how to prevent them</li></ul></li></ul> <p>Make a poster showing life cycle of plasmodium and the symptoms associated with it.</p> <p><b>WEEK 2</b></p> <p>Watch this video. Explore the information from internet and answer the following:</p> <ul style="list-style-type: none"><li>❖ What problem/ social issue is shown on video of Link 4.</li><li>❖ What could be the possible signs which we look for to know</li></ul>
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<https://www.youtube.com/watch?v=FPSGNp5pIOI>

LINK-7

<https://www.drugs.com/article/antibiotics.html>

LINK-8

<https://microbiologysociety.org/members-outreach-resources/outreach-resources/antibiotics-unearthed/antibiotics-and-antibiotic-resistance/the-history-of-antibiotics.html>

LINK-9

<https://www.cdc.gov/patientsafety/features/be-antibiotics-aware.html>

whether the person is drug addict or not.

- ❖ Which drugs are commonly abused and from which source they are derived?
- ❖ What are the harmful effects of drug on a person?
- ❖ What makes adolescence to fall the pray of drugs?

Make a power point presentation covering all these points

### WEEK-3

Collect information of the microbes used in the field of medicine.

Collect information about what is antibiotic?

How are antibiotic derived?

Which was the first antibiotic discovered and how?

Various group of antibiotics and how they help in killing the pathogens.

What is antibiotic resistance?

Which antibiotic is used as a combination therapy in cases of COVID 19 initially?

How antibiotics are misused?

Prepare a talk on the following points and record your video.

### WEEK -4

Search some innovative and interesting topic for your project from various sources.

Collect all the information related to your project from internet/ books.

Try to collect the latest development/ data/ information about that topic.

	Also find out that how working on that topic can benefit you or others.
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## PHYSICS

### Week 1

Chapter 1 ELECTRIC CHARGE AND FIELD.(NCERT)

Chapter 2 ELECTRIC POTENTIAL AND CAPACITANCE.(NCERT)

### Week 2

Chapter 3 CURRENT ELECTRICITY.

NCERT Questions ( Intext and Exercise both ).

### Week 3

Link for ELECTROSTATICS.

[https://www.youtube.com/@NCERTWallahPW/playlists?view=50&sort=dd&shelf\\_id=2](https://www.youtube.com/@NCERTWallahPW/playlists?view=50&sort=dd&shelf_id=2)

Importance of calculus in physics.

<https://physicswallah.onelink.me/ZAZB/YT2June>.

### Week 4

Importance of Graphs in physics.(Explanation with Force, Electric Field and distance)

Write 10 applications of ELECTROSTATIC SHIELDING

## CHEMISTRY

Activity – 1-Week-1 <b>PROJECT</b> <a href="https://www.icbse.com/projects/subject/chemistry">https://www.icbse.com/projects/subject/chemistry</a>	Find an investigatory project prescribed by CBSE , get it approved ,prepare viva for it including definition, theory ,examples, structures/pictures/ all concept involved . Search the topic of project from your NCERT book and prepare it from there too. Write maximum question answers based on your project on loose sheets and after the completion of your project attach sheets in the last of your project .
Activity-2	Complete all practicals in your file posted in Google class room

<p>Activity -3</p> <p>Search new themes / hand on activities /models for Different science competition/exhibition from Arvind Gupta toys ,Think tac sites and bring rough sketch of your idea</p> <p><a href="https://www.arvindguptatoys.com/toys.html">https://www.arvindguptatoys.com/toys.html</a></p> <p><a href="https://www.thinktac.com/">https://www.thinktac.com/</a></p>	<p>Search for new models /ideas on given or more websites / new discoveries of science in the field of technology, agriculture ,Health and hygiene ,communication, save environment, best use of waste etc . get it approved for zonal level competitions from your teachers</p>
<p>Activity -4</p> <p>Watch Ch-1 and CH-2 on the links given below and note important points of chapters and prepare for UT-1</p> <p><a href="https://www.youtube.com/watch?v=1VE1CP7_GFI">https://www.youtube.com/watch?v=1VE1CP7_GFI</a></p> <p><a href="https://www.youtube.com/watch?v=paRg8Q9Y1t8">https://www.youtube.com/watch?v=paRg8Q9Y1t8</a></p>	<p>Do practice of numericals</p>

## SUBJECT-MATHS

### Week - 1

A . Project Work:. TOPIC ALLOTTED Relation and function Note: Students can use any one of below mentioned sub topics or any sub topic of their choice to make a project on relation and function

**Sub topics:** Integration with other subjects. The concept of relations and functions can be integrated into various other disciplines such as physics, computer science, and economics. Students can be encouraged to explore these connections and apply their understanding of relations and functions in these contexts.

**Science:** Students will learn about the applications of functions and relations in various scientific fields, such as physics, biology, and chemistry.

**Real-Life Linkage:**

The concept of relations and functions can be linked to real-life situations such as income and expenditure, population growth, and demand and supply in economics. Students will explore these connections and apply their understanding of relations and functions in these contexts. **Art Integration:** The concept of relations and functions can be integrated with art by exploring the graphical representation of functions. Students will create their own graphs

and identify the characteristics of different types of functions. This can help them develop their creativity and 71 Visualization skills Sustainable

**Development Goals:** The concept of relations and functions can be linked to Sustainable Development Goals such as Goal 8: Decent Work and Economic Growth, Goal 10: Reduced Inequalities and Goal 16: Peace, Justice, and Strong Institutions. Students will explore these connections and apply their understanding of relations and functions in these contexts.

**GENERAL GUIDELINES:**

- The project is to be done on inter-leaf sheets.
- The total length of the project will be 15-20 pages.
- Students have to preserve the initial drafts of the project as well as any research papers that they may have used.
- Students have to be prepared to give a presentation of the project in the class.
- A summary / synopsis (one page) of the project has to be prepared covering: The objective statement Their observations and findings The learning outcomes
- Any other learning from this exercise such as skills of team work, problem solving, time management, information collection, processing, analysing and synthesizing relevant information to derive meaningful conclusions;
- The projects must be neat and well-presented and must be completely hand-written.
- No whiteners to be used or written matter to be crossed out. In case of any mistakes, redo the sheet.
- Do not number sheets or write dates unless so instructed.
- Colour illustrations, graphs may be hand drawn or printed (if it is relevant for any aspect of your project) are welcome to make them look attractive

<https://youtube.com/shorts/X58OfEPjeak?si=GgnGL4EdWHaCTgYZ>

<https://www.youtube.com/watch?si=ScFhQ2JwkBOJhwkA&v=HSidlPTU23M&feature=youtu.be>

## Week – 2

### SUBJECT ENRICHMENT

- 1.To verify that the relation  $R$  in the set  $L$  of all lines in a plane, defined by  $R = \{(l, m) : l \perp m\}$  is symmetric but neither reflexive nor transitive.
- 2.To verify that the relation  $R$  in the set  $L$  of all lines in a plane, defined by  $R = \{(l, m) : l \parallel m\}$  is an equivalence
- 3.To demonstrate a function which is not one-one but is onto.
- 4.To sketch the graphs of  $a^x$  and  $\log_a x$ ,  $a > 0$ ,  $a \neq 1$  and to examine that they are mirror images of each other.

<https://ncert.nic.in/pdf/mathslabmanualxii>

## Week -3

DO THE ASSIGNMENT RELATED TO covered syllabus from NCERT EXEMPLAR

<https://ncert.nic.in/exemplar-problems.php?ln=en>

## Week – 4

PRACTICE NCERT COVERED SYLLANBUS. USE YOUR CREATIVITY AND MAKE A BEAUTIFYL COVER PAGE OF MATHS ACTIVITY FILE.

<https://www.google.com/search?sourceid=chrome&q=maths+cover+page+design>

Draw Graph of functions

<https://youtu.be/wo2Lz8bFRlI?si=86SsDVECsmZ0bBi4>

## SUBJECT-ENGLISH

### \*Week-1\*

#### 1. Questionnaire Making

How to do : After reading the textbook and watching summary, prepare 5 multiple choice questions and short answer type questions from the story . Write answers as well. Make your assignment creative by pasting or drawing a picture related to chapters mentioned below.( Same question for part – a, b and c)

##### a) The Third Level

[https://youtu.be/\\_6c9FLrV1ks?si=u01y2uQanzTd4GN6](https://youtu.be/_6c9FLrV1ks?si=u01y2uQanzTd4GN6)

##### b) Tiger King

[https://youtu.be/s8vvV0x\\_ROs?si=VLPa9VUiGwbZoWrZ](https://youtu.be/s8vvV0x_ROs?si=VLPa9VUiGwbZoWrZ)

### \*Week-2\*

##### c) The Enemy

<https://youtu.be/m04MarV-SC0?si=QDBW-F0Aie3IMbdf>

Where to do :- English Register

### \*Week -3\*

2. Do Note Making of Lesson – 3 (Vistas) – Journey to the end of the world. Also draw a poster conveying message – Save Earth

<https://www.learninsta.com/note-making-class-11/>

Where to do – English Register

### \*Week -4\*

3. Learn, revise and complete the entire work done in class.

4. Prepare Topic presentation of 2 minutes for Asl

## SUBJECT-ECONOMICS

**JUNE 1 WEEK:** Paste foreign currency of any three countries and convert their values with Indian currency. Paste in Register

<https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://www.investopedia.com/ask/answers/031715/how-does-balance-payments-impact-currency-exchange-rates.asp&ved=2ahUKEwi3jsreqY2GAXVa1TgGHTI1BWQQFnoECC0QAQ&sqi=2&usg=AOvVaw3EyAgtn2OSR2sNdZFLJ8Bz>

**JUNE 2 WEEK:** Analyse the budget of 22\_23 and 23\_24 in respect to revenue expenditure and capital expenditure and draw bar diagram also.

[https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://www.indiabudget.gov.in/&ved=2ahUKEwiJws-uqY2GAXVi8DgGHS8vCEgQFnoECEMQAQ&sqi=2&usg=AOvVaw16qcP61hfJet0h\\_z1W9Jd\\_](https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://www.indiabudget.gov.in/&ved=2ahUKEwiJws-uqY2GAXVi8DgGHS8vCEgQFnoECEMQAQ&sqi=2&usg=AOvVaw16qcP61hfJet0h_z1W9Jd_)

**JUNE 3 WEEK:** Visit any commercial bank and practice the way of using cheque, demand deposit and opening of fixed deposit.

[https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://www.v  
edantu.com/revision-notes/cbse-class-12-macro-economics-notes-chapter-  
3&ved=2ahUKEwjPs--  
t6JGGAxWCcGwGHXYVApwQFnoECDgQAQ&sqi=2&usg=AOvVaw1VLOqMQn01\\_  
FHew1y7mSIc](https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://www.v<br/>edantu.com/revision-notes/cbse-class-12-macro-economics-notes-chapter-<br/>3&ved=2ahUKEwjPs--<br/>t6JGGAxWCcGwGHXYVApwQFnoECDgQAQ&sqi=2&usg=AOvVaw1VLOqMQn01_<br/>FHew1y7mSIc)

**JUNE 4 WEEK;** Prepare case study material for your project work and apply bar diagram or time series graph for supporting your data collection.

### **SUBJECT-PHYSICAL EDUCATION**

Holidays HH in Practical File

1 Fitness tests,8

2 Olympics 2024

(200words)

3 Draw Surya Namaskaar with Details

4 2mins self video, talk on ur favourite Game

5 Complete Notes till chapter 4.

Submit on 01july2024

### **SUBJECT-Fine Arts**

#### **1<sup>st</sup> Week**

\* Make any one composition (with minimum 2- human figures)

On the theme -

(i) CLEANLINESS

(ii) PLAYGROUND

(iii) SEASON

(iv) DAILY LIFE

Link for Reference.....

<https://youtu.be/IB6A0nELIXE?si=BMaYHvDEwySiaHr>

#### **2<sup>nd</sup> Week**

\* Landscape

#### **3<sup>rd</sup> Week**

\* Make one OBJECT DRAWING with the effects of light and shades

Link for Reference.....

[https://youtu.be/mGJcqbKAXgs?si=qGIT5c1Juyu9R\\_WP](https://youtu.be/mGJcqbKAXgs?si=qGIT5c1Juyu9R_WP)

#### **4<sup>th</sup> Week**

\* Make any one FOLK ART with attractive border

Link for Reference.....

<https://youtu.be/PRwWaRQyXGU?si=tVIHyR-3VXuVcQO->

<https://youtu.be/8wvPjVscMNA?si=bhG0XpeJ7YaYFtSe>

☞ The above given work is to be done in A-2 size cartridge sheet using Poster colours

Bring your art file after summer break