

GURU HARKRISHAN PUBLIC SCHOOL KAROL BAGH

HOLIDAYS HOME WORK Class – XI B (2024-25)

English

Note:- Entire work should be done in English Class Register.

<p><u>Week – 1</u></p> <p>Design a poster as an appeal for conserving water as most parts of India are facing serious problems and have been hit by drought.</p>	<p>For better understanding, kindly refer the following link:-</p> <p>https://www.cbsetuts.com/cbse-class-11-english-writing-grammar-posters/</p>
<p><u>Week – 2</u></p> <p>Cut out 3 clippings of each Classified Ads under the heads –</p> <ul style="list-style-type: none">● For sale● To-let● Situation vacant● For matrimonial● Pets / kennels	<p>https://www.cbsetuts.com/cbse-class-11-english-writing-grammar-advertisements/</p>
<p><u>Week – 3</u></p> <p>Write each of the following questions in 100-120 words.</p> <ol style="list-style-type: none">1. Explain the reasons for the changing relationship between the grandmother and the author.2. Discuss the values highlighted in the chapter The Portrait of a Lady.3. Identify the poetic devices used in the poem A Photograph and discuss their meanings.	<p>https://www.learncbse.in/ncert-solutions-for-class-11th-english-hornbill/</p>
<p><u>Week – 4</u></p> <p>You are Ashok studying in Class XI. You have been asked by your Principal to speak in the morning assembly on the ‘Importance of English’. Draft a speech in 150 to 200 words.</p>	<p>https://www.cbsetuts.com/cbse-class-11-english-long-composition-speech/</p>
<p><u>Week – 5</u></p> <p>Prepare 2 minutes Topic Presentation for Speaking Skills.</p>	

PHYSICS

Week 4 (May)

Chapter 1 UNIT AND MEASUREMENT

Theory

Week 1

Chapter 2 MOTION IN A STRAIGHT LINE

Theory

Week 2

NCERT Questions (Intext and Exercise both).

Week 3

Link for MOTION

<https://www.youtube.com/channel/UC3HS6gQ79jjn4xHxogw0HiA>

Importance of calculus in physics.

Week 4

<https://www.youtube.com/live/VfQmocovXy0?si=pbQXfjauGtw5H-nd>

<https://www.youtube.com/live/VfQmocovXy0?si=pbQXfjauGtw9h-mg>

Importance of Graphs in physics.(Explanation with speed and acceleration)

Write 10 applications of Dimensions.(Principle of Homogeneity)

CHEMISTRY

<p>Activity – 1-week-1 PROJECT</p> <p>https://www.icbse.com/projects/subject/chemistry</p>	<p>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 given in your 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 .</p>				
<p>Activity-2 –week-2</p>	<p>Observe following practicals using the link provided , Complete all practical in your file and submit file after summer holidays</p> <table border="1" data-bbox="568 1832 1375 2056"> <tr> <td data-bbox="568 1832 715 1995"> CO_3^{2-} TEST </td><td data-bbox="715 1832 1375 1995"> DIL H_2SO_4 https://www.youtube.com/watch?v=5eBS6apmNL8 https://www.youtube.com/watch?v=PX88McUBNT4 </td></tr> <tr> <td data-bbox="568 1995 715 2056"> S^{2-} </td><td data-bbox="715 1995 1375 2056"> https://www.youtube.com/watch?v=fcveeTdzv90 </td></tr> </table>	CO_3^{2-} TEST	DIL H_2SO_4 https://www.youtube.com/watch?v=5eBS6apmNL8 https://www.youtube.com/watch?v=PX88McUBNT4	S^{2-}	https://www.youtube.com/watch?v=fcveeTdzv90
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S^{2-}	https://www.youtube.com/watch?v=fcveeTdzv90				

	SO_3^{2-}	https://www.youtube.com/watch?v=ZkZCZXheyXw
	NO_2^-	https://www.youtube.com/watch?v=CWSMiXq-7Wc&t=265s
	Cl -	Con.H2SO4 https://www.youtube.com/watch?v=O3d_NKyhlwg https://www.youtube.com/watch?v=zMZAiYdXGo
		CHROMYL CHLORIDE TEST https://www.youtube.com/watch?v=COkgNfMAKvw&t=109s
	Br-	https://www.youtube.com/watch?v=dMK4RoYh01o
	i-	https://www.youtube.com/watch?v=mzRgBFuNbM4
	CH_3COO^-	https://www.youtube.com/watch?v=lqn4UdKY1MY
	$\text{C}_2\text{O}_4^{2-}$	https://www.youtube.com/watch?v=0B_Mq5uY9Ng
	PO_4^{3-}	https://www.youtube.com/watch?v=dVe1Acsod2U
		https://www.youtube.com/watch?v=FdVO1zX6doA
	CATIONS	
	NH_4^+	https://www.youtube.com/watch?v=GTZBs3iZgg0
	Pb^{2+} GROUP 1	https://www.youtube.com/watch?v=RBVKBlwyeT4
	- Pb^{2+} , Group ii	https://www.youtube.com/watch?v=f7PfeaA8kow
	Cu^{2+} ,	https://www.youtube.com/watch?v=czm2pwjiftc
	As^{3+} ,	
	Al^{3+} ,	https://www.youtube.com/watch?v=0HPi7X2yhbW
	Fe^{3+} ,	https://www.youtube.com/watch?v=PPG9Xlp0HhY
	Mn^{2+} ,	https://www.youtube.com/watch?v=Abcy8AqWAc
	Ni^{2+} ,	https://www.youtube.com/watch?v=TVNRUMMCg4
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Activity -3-WEEK 3 https://www.youtube.com/watch?v=ahP6rwNkCds	Watch full video in link provided and write the steps involved in titration between oxalic acid and NaOH
Activity -4-WEEK 4 CH-1 https://www.youtube.com/watch?v=VmWmHhNjIL4 CH-3 https://www.youtube.com/watch?v=ZQnmzQ8PuJg For more videos check- https://www.youtube.com/channel/UC4HsqJfmdXDp1uiwnxjq6uQ	Observe videos of chapter 1 and chapter 3 on Shiksha house and prepare for UT -1
Activity -5-WEEK 5 Search new themes / hand on activities /models for Different science competition/exhibition from Arvind Gupta toys ,Think tac or any other sites and bring rough sketch of your idea https://www.arvindguptatoys.com/toys.html https://www.thinktac.com/	Topics : 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

Informatics Practices

1.	TOPIC: Output Devices Link 1 https://www.youtube.com/watch?v=KV_L3a0CI3U	Week 1 Watch the video From the given URL Make a ppt on the topic Output Devices . Insert at least 6 slides.
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<p>2.</p>	<p>Getting Started With Python How to download and install Python </p> <p>TOPIC: Guido Van Rossum.</p> <p>Topic : Basics of Python Data types, variables and string Python Fundamentals TOKEN KEYWORDS IDENTIFIERS LITERALS CBSE CLASS - XI COMPUTER SCIENCE - YouTube https://www.youtube.com/watch?v=DWgzHbgINIo&list=PLsyeobzWxl7poL9JTVyndKe62ieoN-MZ3&index=4</p> <p>variables https://www.youtube.com/watch?v=TqPzwenhMj0&list=PLsyeobzWxl7poL9JTVyndKe62ieoN-MZ3&index=5</p> <p>https://www.youtube.com/watch?v=3Piulb9r-30&t=15s</p> <p>https://www.youtube.com/watch?v=X-sFJKKGkEU</p>	<p>Week 2</p> <p>Download Python from the Internet and Install it to your computer and write python statements in Interactive mode to print addition , subtraction , division and multiplication of 2 numbers.</p> <p>Week 3</p> <p>Create a video on Guido Van Rossum. Search the information from the internet.</p> <p>Week 4</p> <p>Make a chart on topic Secondary storage devices. Collect the Pictures from the net and paste.</p> <p>Week 5: Watch the videos and write programmes in python IDLE. After executing the programmes write the code in your notebook and paste the output .</p> <ul style="list-style-type: none"> ○ Python program to print "Hello Python" ○ Python program to do arithmetical operations.(addition, subtraction,multiplication and division.)
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MUSIC

*WEEK 1.

Write the detail study of music elements of Natyashastra.

https://www.indianetzone.com/56/musical_instruments_natyashastra.htm

WEEK 2.

Write the theka and dugun of Teentaal with their matras and chinch

<https://www.taalgyan.com/taals/teentaal/>

Week 3.

Explain in detail the structure of Tanpura with its diagram.

<https://saraswatisangeetsadhana.in/music-instrument-tanpura/>

WEEK 4.

Learn and write the description of any one raag from your course.

WEEK 5.

What is ektaal? Write the theka and dugun of it with its description.

*** Total matras.**

*** Chinh.**

*** Khali and Sum**

<https://www.taalgyan.com/taals/ektaal/>

COMPUTER SCIENCE

1	<p>TOPIC:</p> <p>Secondary storage</p> <p>Link 1</p> <p>https://www.bing.com/videos/riverview/relatedvideo?q=video+on+secondary+storage+devices&mid=AABED1111B43EA366D89AABED1111B43EA366D89&FORM=VIRE</p>	<p>Week 1</p> <p>Watch the video From the given URL</p> <p>Make a ppt on the topic Secondary storage Devices. Insert atleast 6 slides.</p>
2	<p>TOPIC:</p> <p>Guido Van Rossum</p>	<p>Week 2</p> <p>Create a video on Guido Van Rossum. Search the information from the internet.</p> <p>Week 3:</p> <p>Watch the videos and write programmes in python IDLE.</p>

<p>Topic : Basics of Python Data types, variables and string</p> <p>Link 1: https://www.youtube.com/watch?v=DWgzHbgINIo&list=PLsyebzWxl7poL9JTVyndKe62ieoN-MZ3&index=4</p> <p>Link 2: variables https://www.youtube.com/watch?v=TgPzwenhMj0&list=PLsyebzWxl7poL9JTVyndKe62ieoN-MZ3&index=5</p> <p>Link3 https://www.youtube.com/watch?v=3Piulb9r-30&t=15s</p> <p>Link 4: https://www.youtube.com/watch?v=X-sFJKKGkEU</p>	<p>After executing the programmes .write the code in your notebook and paste the output .</p> <ul style="list-style-type: none"> Python program to print "Hello Python" Python program to do arithmetical operations.(addition, subtraction) Python program to find the area of a triangle Python program to Division of 2 numbers. <p>Week 4</p> <ul style="list-style-type: none"> Python program to find rate of interest Python program to find area of rectangle. Python program to find remainder . <p>Week 5</p> <p>Make a Poster on input devices on a A4 sheet.</p>
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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 2.

6 Details of ur summer coaching in any Game.

Submit on 01july2024

BIOLOGY

<p>NCERT Book</p> <p>Theme:</p> <p>Economic importance of plants</p> <p>Link 1 https://doctor.ndtv.com/living-healthy/7-best-medicinal-plants-and-their-uses-1826198</p> <p>Link 2 http://www.walkthroughindia.com/nursery/10-indian-medicinal-plants-to-grow-at-your-house/</p> <p>Link 3 https://www.odishafdc.com/products_medical_plants.php</p> <p>Link 4 https://www.youtube.com/watch?v=1K_G4UXc3s0</p> <p>Link-5 https://www.youtube.com/watch?v=BmZZJGxjNu8</p>	<p>WEEK 1</p> <p>Using Link-1, Link-2, Link 3</p> <p>Collect the information about the plants which have some medicinal property or boost immunity or protect from disease and what are their benefits.</p> <p>Collect their picture along with the picture of plant part which has medicinal benefits and make a collage.</p> <p>Grow 3 medicinal plants at home and bring them to class after vacations.</p> <p>Make a herbarium of 5 medicinal plants and 5 ornamental plants.</p> <p>WEEK 2</p> <p>Collect leaves of various shapes, dry them and paste it in your notebook.</p> <p>Collect various modifications of stems, roots and leaves found around you. Click their picture. Search the name of that particular modification and make a file with their picture and the name of that modification.(Watch video shown in Link-4 & Link 5)</p>
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<p>Link-6 https://wecofilters.com/blog/post/home-ro-components/?SID=96ep509u28v7ips47ffo4291t3</p> <p>Link-7 https://www.freshwatersystems.com/blogs/blog/what-is-reverse-osmosis</p> <p>Link-8 https://www.youtube.com/watch?v=hQ-rE6oEUPM</p> <p>Link -9 https://www.youtube.com/watch?v=eLchQl2rBY8</p> <p>Link 10: https://www.diabetes.co.uk/global-diabetes/diabetes-in-india.html</p> <p>Link 11: https://timesofindia.indiatimes.com/life-style/health-fitness/health-news/India-is-the-diabetes-capital-of-the-world/articleshow/50753461.cms</p> <p>Link 12: https://www.webmd.com/diabetes/type-2-diabetes</p>	<p>WEEK-3</p> <p>You must be having some water filter system installed at your home. Find out what its components are and how it filters the water.</p> <p>Collect information about how RO filter cleans water and what are its main components.</p> <p>How each of these components help in cleaning water.(link-6)</p> <p>How the system installed at your place is different from RO system if you have some other filter system installed.</p> <p>Search the principle on which RO filtration works.(Link-7)</p> <p>Which water is best for human consumption-RO water or water filtered through other methods/systems and why?</p> <p>Draw a diagram showing the principle of working of RO system, and write down the advantages and disadvantages of using this technique.</p> <p>WEEK -4</p> <p>Taking the help of Link-8 &9, make a 3D Model of DNA</p> <p>WEEK -5</p> <p>Refer Link 11,12 and 13</p> <p>Case study-Search a diabetic person in your family, relatives/neighbourhood.</p> <p>Ask him for the symptoms which he had when he was diagnosed with diabetes.</p> <p>Find out from the given links:</p> <p>What the normal glucose levels are.</p> <p>Search the causes of diabetes and the treatment options available.</p> <p>Which speciality of doctors treats diabetes?</p> <p>How we can prevent diabetes?</p> <p>What is BMI and how is that linked to diabetes?</p>
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	<p>Collect the data about the incidence of diabetes in India. And incidence of diabetes in India vs world</p> <p>Make a poster showing DOs and DONTs.</p> <p>Prepare a awareness programme for diabetes which we can run in school in the form of talk using ppt, display of symptoms, causes and prevention etc by way of picture, posters.</p> <p>Think of some novel idea that can be applied in running this programme.</p>
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DIVINITY

1st week

1) Learn question answers of Chapter 1 to 6

2nd week

2) Recite Japuji Sahib Path daily.

3rd week

3) Make a family tree of 10 Gurus.

https://www.sikhiwiki.org/index.php/Guru_family_tree

4th week

4) Make a project on Sikh population around the world Take help from link <https://shorturl.at/djqFY>

5th week

5) Learn Ardas

ਛੁੱਟੀਆਂ ਦਾ ਕੰਮ 2024-25

ਜਮਾਤ - ਗਿਆਰਵੀਂ

ਹਫ਼ਤਾ ਪਹਿਲਾ

1-ਕਿਸੇ ਹਸਪਤਾਲ ਵਿੱਚ ਜਾ ਕੇ ਤੁਸੀਂ ਮਰੀਜ਼ਾਂ ਦੀ ਸੇਵਾ ਕੀਤੀ ਹੈ ਇਸਦੇ ਬਾਰੇ ਹਸਪਤਾਲ ਦੇ ਖਰਾਬ ਪ੍ਰਬੰਧ ਬਾਰੇ ਅਖਬਾਰ ਦੇ ਸੰਪਾਦਕ ਨੂੰ ਪੱਤਰ ਲਿਖੋ।

2-ਤੁਹਾਡੇ ਇਲਾਕੇ ਵਿੱਚ ਕਾਰਾਂ ਦੀ ਬਹੁਤ ਮੰਗ ਹੈ। ਹੋਂਡਾਸਿਟੀ ਦੀ ਏਜੰਸੀ ਲੈਣ ਲਈ, ਹੋਂਡਾ ਸਿਟੀ ਦੇ ਡਾਇਰੈਕਟਰ ਨੂੰ ਚਿੱਠੀ ਲਿਖੋ।

3-ਕਿਸੇ ਅਖਬਾਰ ਦੇ ਸੰਪਾਦਕ ਨੂੰ ਵੱਧ ਰਹੀ ਮਹਿੰਗਾਈ ਬਾਰੇ ਤੇ ਮਹਿੰਗੇ ਹੋ ਰਹੇ ਸੇਨੇ ਬਾਰੇ ਜਾਣਕਾਰੀ ਦਿੰਦਿਆਂ ਹੋਇਆਂ ਪੱਤਰ ਲਿਖੋ।

4-ਬਾਜ਼ਾਰਾਂ ਵਿੱਚ ਵਿਕਦੇ ਮਿਲਾਵਟੀ ਸਮਾਨ ਬਾਰੇ ਕਿਸੇ ਅਖਬਾਰ ਦੇ ਸੰਪਾਦਕ ਨੂੰ ਪੱਤਰ ਲਿਖ ਕੇ ਸੂਚਿਤ ਕਰੋ।

ਹਫ਼ਤਾ ਦੂਜਾ

ਹੇਠ ਲਿਖੇ ਵਿਸ਼ਿਆਂ ਤੇ ਲੇਖ ਲਿਖੋ।

ਮਾਂ ਬੋਲੀ ਪੰਜਾਬੀ, ਸਾਡਾ ਇਮਤਿਹਾਨ ਹੀ ਢਾਂਚਾ, ਭਾਰਤ ਵਿੱਚ ਬਜ਼ੁਰਗਾਂ ਦਾ ਸਥਾਨ, ਪੰਜਾਬ ਦੇ ਮੇਲੇ ਤੇ ਤਿਉਹਾਰ।

ਹਫ਼ਤਾ ਤੀਜਾ

ਆਪਣੇ ਕਿਸੇ ਵੀ ਮਨਪਸੰਦ ਵਿਸ਼ੇ ਤੇ 15 ਪੇਜਾਂ ਦਾ ਪ੍ਰੋਜੈਕਟ ਤਿਆਰ ਕਰੋ।

ਹਫ਼ਤਾ ਚੌਥਾ

ਆਪਣੀ ਕਾਪੀ ਵਿੱਚ ਦੋ ਸੁਹਾਗ, ਦੋ ਘੋੜੀਆਂ, ਦੋ ਟੱਪੇ, ਦੋ ਮਾਹੀਆ ਦੋ ਬੋਲੀਆਂ ਤੇ ਪੂਰਨ ਭਗਤ ਦੇ ਕਿੱਸੇ ਦੀ ਕਹਾਣੀ ਲਿਖੋ। <https://youtu.be/J4DxQsUoB6I?si=5piOAj0-zZv4L-j>

https://youtu.be/WyVqtox1q68?si=CLolkefIVxRHB6W1_ji

https://youtu.be/pWAOEoOiSPI?si=MuzhtJhoBLMn_caH_br

ਹਫ਼ਤਾ ਪੰਜਵਾਂ

ਘਰ ਵਿੱਚ ਰਹਿ ਕੇ ਤੁਸੀਂ ਆਪਣੇ ਮਾਤਾ ਜੀ ਨਾਲ ਕਿਵੇਂ ਘਰ ਦੇ ਕੰਮ ਵਿੱਚ ਹੱਥ ਵਟਾਇਆ ਅਤੇ ਉਹਨਾਂ ਦੀ ਕੀ ਕੀ ਮਦਦ ਕੀਤੀ। ਇਸ ਦੇ ਬਾਰੇ ਵਿਸਤਾਰ ਸਹਿਤ ਜਾਣਕਾਰੀ ਦਿੰਦਿਆਂ ਹੋਇਆਂ ਪੈਰਾ ਲਿਖੋ।

<https://youtu.be/SOk6M3IchJQ?si=w7T140vSPaC8noVg>

Holiday Homework
Class XI - Maths

Week – 1

SET THEORY AND RELATIONS & FUNCTION

1. Represent the following in the roster form i) Set of months of a year having 30 days
ii) Set of integers between – 6 & 6
iii) Set of vowels of English alphabets
iv) $\{x \in \mathbb{N} ; x^2 < 36\}$
2. Represent the following in set builder form i) $\{-1, 1\}$ ii) $\{1, 4, 9, 16, 25, \dots, 121\}$ iii) $\{1, 2, 4, 8, \dots\}$ iv) Set of odd natural numbers
3. State whether the following are true or false i) $\{1, 2\} = \{1, 1, 2, 2, 2\}$ ii) $\{2\} = \{1, 2, 3\}$ iii) \emptyset is a subset of every set
4. Write the following intervals in set builder form i) $(-4, 0)$ ii) $[-6, 2)$ iii) $(9, 12)$ iv) $[-2, 3]$
5. A & B are two sets such that $n(A) = 3$ and $n(B) = 6$. Find $n(A \times B)$.
6. Taking the set of natural numbers as the universal set.
7. Write the complement of the following sets i) $\{x : x \text{ is an even natural number}\}$ ii) $\{x : x \text{ is a prime number}\}$
iii) $\{x : x \text{ is a perfect square number}\}$ iv) $\{x : 2x + 5 = 9\}$
9. If $U = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$ $A = \{2, 4, 6, 8\}$ $B = \{2, 3, 5, 7, 9\}$ MATHEMATICS 29 Verify i) $(A \cup B)' = A' \cap B'$
ii) $(A \cap B)' = A' \cup B'$
10. Given that $A = \{1, 2, 3, \dots, 100\}$ write the subset B of A whose elements are represented by $x + 2$, where $x \in A$
11. If $A = \{4n - 3n - 1, n \in \mathbb{N}\}$ $B = \{9(n - 1), n \in \mathbb{N}\}$ show that $A \subset B$
12. Prove that if $A \cup B = C$ & $A \cap B = \emptyset$ then $A = C - B$
14. Two finite sets have m & n elements. The total number of subsets of the first set is 56 more than the total number of Subsets of the second set. Find values of m & n.
15. Using Venn diagram show the set i) $A' \cap (B \cup C)$ ii) $(A - B) \cup (B - A)$ 16. If $A = \{1, 3, 5\}$, $B = \{2, 4\}$ find $n(A \times B)$ a) 6 b) 8 c) 10 d) 12 iii) $n(B \times A)$ a) 6 b) 8 c) 10 d) 12
13. Given relation R on Z as $R = \{(a, b) \in \mathbb{Z} \times \mathbb{Z} : a^2 + b^2 \leq 4\}$. The domain of R is i) $\{0, 2, 4\}$ ii) $\{1, +1, +2\}$ iii) $\{1, 2, 3, 4\}$ iv) $\{0, 1, 2, 3, 4\}$
17. Let $f(x) = x^2 - x$ $g(x) = 2x$ be functions defined on R, find i) $(f + g)(0)$ a) 0 b) 1 c) 2 d) 3
ii) $(f - g)(-1)$ a) 1 b) 4 c) 5 d) 6 iii) $(f \cdot g)(2)$ a) 0 b) 8 c) 6 d) None
14. Let R be a relation from N to N defined by $R = \{(a, b) : a, b \in \mathbb{N}, a = b^2\}$ Are the following true ii) $(a, a) \in R, \forall a \in \mathbb{N}$ iii) $(a, b) \in R \Rightarrow (b, a) \in R$ iv) $(a, b) \in R, (b, c) \in R \Rightarrow (a, c) \in R$
20. If $A \times B = \{(a, 1), (a, 2), (a, 5), (b, 1), (b, 2), (b, 5)\}$ find $B \times A$
21. If $A = \{1, 2, 3\}$, $B = \{7, 9\}$. Let $f = \{(2, 9), (3, 7)\}$. Is 'f' a function from A to B? Why?
15. Let R be a relation defined on N as $R = \{(x, y) \in \mathbb{N} \times \mathbb{N} : x + 2y = 39\}$, find the domain & range of R
20. Let $A = \{1, 2, 3\}$ $B = \{3, 4\}$ $C = \{4, 5, 6\}$ find i) $A \times (B \times C)$ ii) $(A \times B) \times C$
21. Find domain of the functions: $f(x) = [x] + x$
16. Find range of the following functions i) $f(x) = |x - 3|$ ii) $f(x) = 5 \sin 4x$ iii) $f(x) = 5 - |x|$ iv) $f(x) = 1 + 3 \cos 2x$
17. Let $A = \{a, b\}$; $B = \{c, d\}$. How many relations are possible from A to B
24. Find domain and range for the functions i) $f(x) = |x|$ ii) $f(x) = \sin x \cos x$ iii) $f(x) = \sec x$
25. Redefine the function given by $f(x) = |x - 1| + |1 + x|$, $-2 < x < 2$
26. Let $A = \{1, 2, 3, 4\}$ & $B = \{1, 4, 9, 16, 25\}$. If R is a relation defined from A to B as $R = \{(x, y) : x \in A, y \in B \text{ \& } y = x^2\}$ iv) Draw arrow diagram of R v) Find domain of R vi) Find range of R vii) Find co-domain of R
18. Is $g = \{(1, 1), (2, 3), (3, 5), (4, 7)\}$ a function? Justify.
28. If $A = \{2, 4, 6, 9\}$ & $B = \{4, 6, 18, 27, 54\}$ Let R be a relation from A to B defined as $R = \{(a, b) : a < b \text{ \& } a \text{ is a factor of } b\}$ i) Find R ii) Find domain and range of R
19. Draw graph of functions $f(x) = |x - 2|$
31. Draw the graph of $f(x) = 1 - |x + 3|$
32. The function f is defined by $f(x) = \sin x$, find $f(f(x))$
33. If $f(x) = \sin x$, find $f(f(x))$

Week – 2

Maths lab activities on the following topics are to be completed in Maths Lab activity file.

(<https://ncert.nic.in/pdf/mathematics/kelm.402>

https://ncert.nic.in/pdf/class_xi/mathematics/pdf/kelm402.pdf

- 1.To find the number of subsets of a given set and verify that if a set has n number of elements, then the total number of subsets is 2^n
- 2.To verify that for two sets A and B , $n(A \times B) = pq$ and the total number of relations from A to B is 2^{pq} , where $n(A) = p$ and $n(B) = q$
- 3,To verify distributive law for three given non-empty sets A , B and C , that is, $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$

Week - 3

DO THE ASSIGNMENT RELATED TO REAL NUMBERS,POLYNOMIALS,LINEAR EQUATIONS IN TWO VARIABLES AND QUADRATIC EQUATIONS { from exemplar}

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

<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.pinterest.com/pin/maths-border-design-maths-project-cover-page-design-border-designs-on-paper--678073287667811850/>

MIND MAP RELATED TO CH 1,2

https://edurev.in/studytube/Mindmap-Sets/d40bb61d-7a73-4073-8d44-2278e8a757c1_p

Draw Graph of functions

<https://youtu.be/wo2Lz8bFRlI?si=86SsDVECsMZ0bBi4>