

JAIN BHARATI MRIGAVATI VIDYALAYA

SESSION 2024-25

SUMMER VACCATIONS HOMEWORK

CLASS XII

1. ENGLISH

1. You have noticed many stray animals on the road during the busy hours of the day. These animals have caused traffic jam as well as accidents. You have already written to the concerned authorities but no action has been taken so far. So, write a letter to the Editor of a leading newspaper telling him about the nuisance created by the stray animals. Sign your name as Prateek Kumar/Prateeksha Kumari of C/5, Jailok Apartments, Rani Bagh, New Delhi.

2. You are Aakash Shah /Aditi Shah studying in Jai Bharat Public School, Greater Noida. The road leading to your school is very congested and full of potholes. Students and parents are often caught in a traffic jam. In spite of several representations, the government has not done anything to improve the condition of the road. Write a letter to the Editor of The Times of India, drawing the attention of the government to this problem.

3. You are a social worker. You feel upset as some of the good schools are admitting as many as 60-70 students in a class just to mint money. This is adversely affecting academic standards. Write a letter to the Editor of a National daily highlighting this corrupt practice. Sign the letter as Rajan Singh/Ranjana Singh of A-55, Pratap Nagar, New Delhi.

4. You are Bharat Reddy of Apex Apartments, Rajiv Nagar, New Delhi. Write a letter to the editor of a national newspaper about the undesirability of primary school kids carrying heavy bags to their school.

5. You are Asma/Ashish, the Head Girl/Boy of Vandana International school, Dwarka, New Delhi. Your school is soon going to publish the annual magazine next month. Write a notice for the notice board of your school inviting students to submit write-ups.

6. You are Sports Secretary of Lalwani Public School, Udaipur. Draft a notice in not more than 50 words for your school notice board asking the students to give

their names for participation in various events to be held on the Annual Sports Day of your school. Invent the details of the events. Sign as Lalit Kumar/Lalita Kumari.

7. You are Smitha/Sunil, Secretary AVM Housing Society. You are going to organize a blood donation camp. Write a notice in not more than 50 words, urging the members of your society to come in large numbers for this noble cause. Invent all the necessary details.

8. Every year in the central part of the city a flower show is held in the month of February. Your school has received a circular from the District Collector inviting your students to visit it. Write a notice in about 50 words informing the students about the show and advising them to go and enjoy it. You are Navtej/Navita, Head Boy/Head Girl, Sanskriti Public School, Chandigarh.

9. Write 25 inspirational quotes.

10. Read any book of your choice and write its review.

11. Read newspaper daily and paste cuttings of ten school reports and ten reports of international events/incidents.

12. Revise the chapters completed in the class.

2. MATHEMATICS

(1) Do all questions of the following chapters

--Matrices

--Determinants and

--Inverse Trigonometric functions

from the book EXEMPLAR Mathematics class XII.

(2) Learn all the formulae of Inverse Trigonometric functions.

3. APPLIED MATHEMATICS

NOTE- DO ALL THE SUMS.

1. Find $3^{128} \pmod{7}$.

2. If $x \pmod{9} = 2$, find all the possible values of x ; where $0 < x < 47$.

3. A container contains 40 litre milk. From this container 4 litre milk was taken out and replaced with water. This process was repeated further two more times. How much milk is there in the container now?
4. A retailer has 250 kg of rice, a part of which he sells at 10% profit. The remaining quantity of rice is of low quality and he sold it at 5% loss. Overall he made a profit of 7%. Find the quantity of rice sold at 5% loss.
5. A person can row a boat 5 km an hour in still water. It takes him thrice as long to row upstream as to row downstream. Find the rate at which the stream is flowing.
6. A cistern can be filled by two pipes A and B in 12 minutes and 15 minutes respectively. Another tap C can empty the full tank in 20 minutes. If the tap C is opened 5 minutes after the pipes A and B are opened, find when the cistern becomes full?
7. Using matrices, solve the following system of equations:

$$\frac{1}{x} - \frac{1}{y} + \frac{1}{z} = 4 ; \quad \frac{2}{x} + \frac{1}{y} - \frac{3}{z} = 0 ; \quad \frac{1}{x} + \frac{1}{y} + \frac{1}{z} = 2$$
8. Solve the following system of equations by matrix method:

$$x - y + 2z = 7; \quad 2x - y + 3z = 12 ; \quad 3x + 2y - z = 5$$
9. Two Trusts A and B receive Rs 70000 and Rs 55000 respectively from central government to award prize to persons of a district in three fields agriculture, education and social service. Trust A awarded 10, 5 and 15 persons in the field of agriculture, education and social service respectively while trust B awarded 15, 10 and 5 persons respectively. If all three prizes together amount to Rs 6000, then find the amount of each prize by Cramer's Rule.

10. Two booksellers A and B sell the textbook of Mathematics and Applied Mathematics. In the month of march, bookseller A sold 250 books of Mathematics and 400 books of Applied Mathematics whereas bookseller B sold 230 books of Mathematics and 425 books of Applied Mathematics. In the month of April, bookseller A sold 550 books of Mathematics and 300 books of Applied Mathematics and bookseller B sold 270 books of Mathematics and 450 books of Applied Mathematics. Represent the given information into matrix form and find the total sale for both the booksellers in the month of March and April, using matrix algebra.
11. For what value of k , points $P(3, -2)$, $Q(8, 8)$ and $R(k, 2)$ are collinear.
12. Three shopkeepers A, B and C are using polythene bags, handmade bags and newspaper bags. A uses 20, 30 and 40 number of bags of respective type. B uses 30, 40 and 20 of each respective kind while C uses 40, 20 and 30 of each type. Each shopkeeper spent Rs 250, Rs 220 and Rs 200 on the bags. Find the cost of each carry bag using matrix method.

COMPLETE ANY ONE PROJECT FROM THE FOLLOWING LIST.

1. Weather prediction (prediction of monsoon from past data)
2. Visit Kirana shops near your home and collect the data regarding the sales of certain commodities over a month. Try to figure out the stock of a particular commodity which should be in the store in order to maximize the profit
3. Stock price movement
4. Risk assessments by insurance firms from data
5. Predicting stock market crash
6. Predicting the outcome of an election – exit polls
7. Predicting mortality of infants

4. CHEMISTRY

- (i) Make a Mind map of chapter Solution, Electrochemistry and Chemical Kinetics on A-4 Sheets
- (ii) Complete the Practical Record, covering Experiments in accordance with the provided instructions.
- (iii) Learn Scheme of Salt Analysis.
- (iv) Prepare chemistry project for CBSE Final Practical

The project file must contain

- Front page
- Certificate
- Acknowledgement
- Aim
- Index
- Requirements
- Theory
- Procedure
- Observation Table

(V) Solve the following Chapters questions:-

SOLUTIONS

Q1 Explain the Following :-

- a) Molarity
- b) Molality
- c) Azeotropes
- d) Colligative Property
- e) Van't Hoff Factor

Q2. What do you mean by ideal solution? Give any two examples.

Q3. Find the boiling point of a solution containing 0.50 g of glucose ($C_6H_{12}O_6$) dissolved

in 80.2 g of water. [Given K_b for water is $0.52K\ kg\ mol^{-1}$].

Q4. 100 g of a non- electrolyte solution dissolved in 50 g of benzene lowered the freezing point of benzene by 0.40 K. The freezing point depression constant of benzene is

5.12 K kg mol⁻¹. Find the molar mass of the solute.

Q5. 2g of benzoic acid (C₆H₅COOH) dissolved in 25 g of benzene shows a depression

in freezing point equal to 1.62 K. Molal depression constant of benzene is 4.9 K kg mol⁻¹

What is the percentage association of acid, if it forms dimer in solution?

Q6. With the help of a neat diagram describe reverse osmosis. How can water be purified by this process? Explain its importance in the context of gulf countries.

Q7 Explain the positive and negative deviation from ideal behaviour with the help of a

neat diagram.

ELECTRO CHEMISTRY and CHEMICAL KINETICS

Q1. If a current of 0.5 ampere flows through a metallic wire for 2 hours, then how many

electrons flow through the wire?

Q2. The conductivity of 0.20 M solution of KCl at 298 K is 0.0248 S cm⁻¹. Calculate its molar

conductivity. How much charge is required for the following reductions:

(i) 1 mol of Al³⁺ to Al

(ii) 1 mol of MnO₄ to Mn²⁺

Q3. A solution of Ni (NO₃)₂ is electrolyzed between platinum electrodes using a current of 5.0 ampere for 20 minutes. What mass of Ni is deposited at the cathode? (Atomic mass of Ni = 58.9 u)

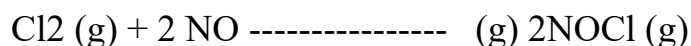
Q 4. What is Fuel Cell. Write the reaction involved in it.

Q 5 . State and explain Faraday of electrolysis.

Q6. Define conductivity and molar conductivity for the solution of an electrolyte. Discuss their variation with concentration.

CHEMICAL KINETICS

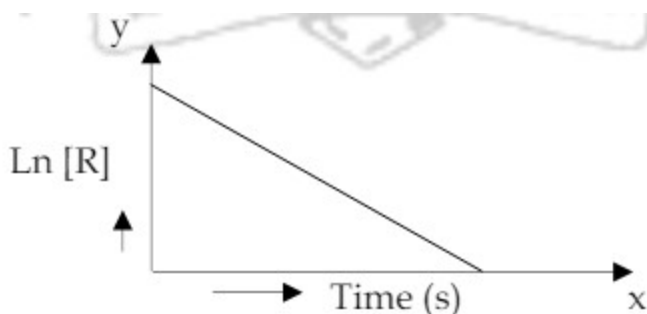
Q1. For the reaction :



The rate law is expressed as rate = k [Cl₂][NO]². What is the overall order of the reaction?

Q2. Give an example of pseudo first order reaction.

Q3. A reaction, reactant product is represented by the graph below. predict



(i) The order of the reaction in this case.

(ii) What does the slope of the graph represent?

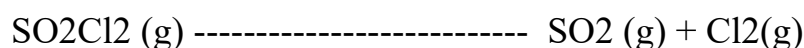
(iii) What are the units of rate constant k?

(iv) Give the relationship between k and t_{1/2} (half life period).

(v) Draw the plot of log [R]₀/[R] vs. time (s)

Q4. The following data were obtained during the first order thermal decomposition of SO₂Cl₂ at

a constant volume:



Experiment	Time/s ⁻¹	Total pressure/atm
1	0	0.4
2	100	0.7

Calculate the rate constant. (Given $\log 4 = 0.6021$, $\log 2 = 0.3010$)

Q5. A reaction is of first order in reactant A and second order in reactant B. How is the rate of

this reaction affected when

- (i) the concentration of B alone is increased to three times
- (ii) the concentration of A as well as B is doubled.

Q6. A reaction is of first order in A and second order in B.

- (i) Write the differential rate equation.
- (ii) How is the rate affected on increasing the concentrations of B three times?
- (iii) How is the rate affected when the concentrations of both A and B are doubled?

5. PHYSICS

1. Select an investigatory project on one of the topic given in Physics Laboratory Manual for

class xii and must inform me so that there should not be any repetition.

2. Complete the laboratory practical file and Activity file.

3. Assignment questions-

(a) An electron and a proton are brought nearer, how does the potential energy of system

changes?

(b) On increasing the current drawn from a cell, the potential difference across its terminal is

lowered. Why?

(c) You are asked to measure e.m.f. of a cell. Which instrument will you use? A high resistance

voltmeter or potentiometer and why?

(d) Two cells of emfs 1.5V and 2V having internal resistances 0.2Ω and 0.3Ω respectively are

connected in parallel. Calculate the emf and internal resistance of the equivalent cell.

- (e) The plates of a parallel plate capacitor have an area of 90cm^2 each and are separated by 2.5mm . The capacitor is charged by connecting it to 400V supply. (a) How much electrostatic energy is stored by the capacitor? (b) View this energy as stored in the electrostatics field between the plates and obtain the energy per unit volume u . Hence arrive at a relation between u and the magnitude of electric field E between the plates.
4. Write all the important questions of unit 1,2 which are in CBSE annual exam.
5. Prepare a diary and write all the important formulas of unit 1,2,3.

6. BIOLOGY

- Justify the followings
 - Mostly males are affected by Haemophilia or Colour blindness, females are rarely affected
 - Saheli is an ideal contraceptive.
 - Thalassemia can be prevented
- Prepare Punette Square for.
 - Incomplete Dominance
 - Co - dominance
 - Polygenic inheritance
 - Pleiotropy
 - Multiple allele
- Explain sex determination mechanism in
 - Humans
 - Honey bee
 - Fowl
 - Fruit flies
- Explain 3 Chromosomal disorders and 3 genetic disorders.
- Explain the hormonal feedback mechanism of spermatogenesis and oogenesis
- Prepare the mind maps of the following:-

- a) Embryo development in Plants
 - b).Endosperm development
 - c) Spermatogenesis
 - d) Oogenesis
 - e) Human Embryonic development
7. Draw a diagram and explain the changes that take place in
- a) Graffian follicle
 - b) Endometrial thickening
 - c) FSH,LH
 - d) Estrogen & Progesteron
- during different phases of Menstrual Cycle.
8. Complete your Laboratory record.
9. Complete your Investigatory Project Report.

7.PSYCHOLOGY

1. Write Practical- Adjustment Inventory for School Students (AISS) and Self Concept Questionnaire.
2. Prepare a case Profile of an individual who has excelled in areas like sports, academics, music etc. or those with interpersonal social problems, i.e. Poor body image, obesity, temper tantrums, substance abuse, not getting along with peers, withdrawn, etc. Find the background information and developmental history of the individual. Format for preparing case profile already shared.
3. Case study: Jerry's naturalist interests were immediately apparent in the first week of school. He chose a classroom book on insects as an independent reading choice and excitedly shared the contents with classmates and Mrs. J. As the teacher pre-assessed Jerry by questioning him, the depth of his knowledge was evident. Jerry had an extensive knowledge about butterflies in particular, knowing their structures, species, and survival needs. Whenever a "bug" arrived at school, Jerry either knew the name or looked it

up to inform the class. He would find the other animals of the food web that interacted with the animal. On formal assessment, it was concluded that Jerry is gifted.

Q1 On the basis of this information, Jerry's IQ score 1 (a) cannot be predicted (b) is a common score (c) is probably 120+ (d) is probably 130+

Q2. Which of these can be used on their own to conclude that Jerry is gifted?

1 a) His IQ scores b) His grades and portfolios c) His teacher's observations and ratings d) None of the above

Q3. According to teachers, giftedness is a combination of high: 1 (a)

Commitment, confidence, control (b) Ability, control, creativity (c)

Commitment, creativity, ability (d) Control, commitment, creativity

4. Case study: Avi and Anita went to the doctor. They wanted to get health check-ups. The doctor gave them a fitness certificate and asked them to visit a counsellor/ mental health professional for the holistic analysis. Avi asked will he give us electric shock. The doctor said "no" he will administer some assessments methods "Anita asked if it would be an intelligence test. Avi said I scored 92% which means I am very intelligent. Anita said you just had the power of rote memory I could always transform a small input into an effective output. Then they started discussing about their school friends. Remember Rajat had great ability to deal with environment, he was street smart and quickly adapted to different situation. Mridul was so creative he could use past experience so creatively and solve novel problems. Parul loved going to school, she was always interested in new knowledge, always use to plan what to do and how to do and she had been a great executer as well Anita told Avi intelligence is not an easy concept it involves interdependent functioning of three neurological systems, called the functional units of brain. Avi smiled and said "Anita you know a lot about intelligence. I am sure you have a high "IQ ". Anita also smiled and said for sure it is somewhere between 110-119. Once they reached the mental health professional, they comforted them and enquired about the purpose of testing, as they wanted to avoid its misuse.

Q1. Anita said you just had the power of rote memory I could always transform a small input into an effective output. Which theory of intelligence is Anita referring to for explaining her intelligence? 1 a) Uni factor theory b) Two factor theory c) Hierarchical model of intelligence d) Structure of intellect model

Q2. Identify the intelligence of the following: 1 a) Parul b) Mridul

Q3. Anita also smiled and said for sure it is somewhere between 110-119.

What is the description of IQ range between 110-119? 1 a) Average b) Low average c) High average d) Superior

5. What are the misuse of intelligence tests?
6. Who are Neo-Freudians? Explain any one theory of a Neo Freudian.
7. What are indirect method of assessing personality? Explain them in brief.
8. Describe the key features of self-report measures used in personality assessment.
9. Describe behavioural ratings used in assessment of personality. Explain the major limitations in using these ratings.
10. Defense Mechanisms Identify the defense mechanisms in the cases given below.

a. Which defence mechanism is also assign of maturity according to Fried.

a . Rationalisation b. Sublimation c. Reaction formation d. Projection

b. Sandhya was abused as a child. She doesn't remember the abuse but now struggles to trust others and form relationships.

1. Displacement 2. Rationalisation 3. Projection 4. Repression

c. Bill's friends confront him about his excess drinking, but he think she doesn't have a problem. Bill is experiencing:

a. Denial b. Rationalisation c. Displacement d. Sublimation

d. Clare gets fired and blames her job loss on her co-workers. This is an example of which defense mechanism?

a. Projection b. Rationalisation c. Displacement d. Sublimation

e. A person may explain a natural disasters 'God's will'.

a. Projection b. Rationalisation c. Displacement d. Sublimation

f. A boy who is angry with a teacher comes home and yells at his dog.

a. Projection b. Rationalisation c. Displacement d. Sublimation

g. Kanika says "I cheated but everyone cheats so it's ok"

a. Projection b. Rationalisation c. Displacement d. Sublimation

h. "A patient unconsciously hates his father continuously and says how great his father is."

a. Projection b. Rationalisation c. Reaction Formation d. Sublimation

i. A woman cannot remember a sexual assault.

a. Repression b. Rationalisation c. Reaction Formation d. Sublimation

j. A Person with strong sexual urges channelizes his/her energy in to religious favours.

1. Rationalisation 2. Reactionformation 3. Projection 4. Repression

k. An individual rejected in a job interview, claims that his present job is better

1.Rationalisation 2.Reactionformation 3.Projection 4.Repression

l.Aman drives a car meets with an accident, starts blaming the speed breaker son the road.

1.Rationalisation 2.Projection 3.Repression 4.Reactionformation

m>Your friend says something hurtful, but instead of confronting your friend you lash out at your sister.

a. Reaction formation b. Rationalisation c. Displacement d. Denial

n.Ramit is frustrated with his married life however he chooses to hit the gym when he is frustrated.

a. Sublimation b. Displacement c. Reaction formation d. Rationalisation

** Do Question number 3 to 10 in your notebook*

8. COMPUTER SCIENCE

Q1. Complete the exercise and assignment questions of the above-mentioned chapters from book.

- Python Revision Tour – I
- Python Revision Tour – II
- File handling
- Prepare Activity/Practical file containing 5 questions each from following topics:
- Conditional Programming and Iterative Programming
- Lists, Tuples and Dictionary

Q2. Do any one-project report from the following:

- Development of a Puzzle
- Development of an Educational Game
- Automation of Order Processing in a Restaurant

Q3. Write a program to enter the following

records in a binary file:

Item No intege

r

Item_Name string

Qty integer

Price float

Number of records to be entered should be accepted from the user. Read the file to display the records in the

following format:

Item No:

Item Name:

Quantity:

Price per item:

Amount: (to be calculated as Price * Qty)

Q4. Visit the website “Code.org” Complete at least two online courses available on the website. Submit the completion certificate of the same.

Q5. Complete an ‘Android development Course’ from any website like Coursera, Edx etc. and deposit print of screenshot of the completion of course.

9.INFORMATICS PRACTICES

Q1. Create the following Series with list, dictionary and numpy arrays, and do the specified operations:

- a. Country, having 5 elements with the country name as values and default index values.
- b. StuMarks, having 5 elements with index labels 5 students name and all the five marks values set to zero. Also Check if it is an empty series.
- c. Friends, from a dictionary having roll numbers of five of your friends as data and their first name as keys.
- d. MTseries, an empty Series. Check if it is an empty series.
- e. MonthDays, from a numpy array having the number of days in the 12 months of a year. The labels should be the month numbers from 1 to 12.

Q2. Using the Series created in above Question, write commands for the following:

- a. Set all the values of StuMarks to 100 and display the Series.
- b. Divide all values of StuMarks by 5 and display the Series.
- c. Create another series StuMarks2 having 5 elements with index labels ‘a’, ‘e’, ‘i’, ‘o’ and ‘u’ having values d. [90,50,60,80,70] respectively.
- e. d)Add StuMarks and StuMarks2 and assign the result to School.
- f. Subtract, Multiply and Divide StuMarks by StuMarks2.
- g. Alter the labels of MonthDays to [‘A’, ‘E’, ‘I’, ‘O’, ‘U’].

Q3. Python has become very popular. Especially in Artificial intelligence, python programming language is used. 1) Explore some AI based apps on GITHUB and explore how python has been used.

- 2) Which libraries or modules are used in AI.

- 3) Identify 3 such libraries/modules and try to make a simple AI based app using any of these libraries.
- 4) Swayam portal has become famous during lockdown and various online courses free of cost are available on this portal. Register on any one course and share your learning experience. The link of the portal is <https://swayam.gov.in/>

Q3. Create the following DataFrame Sales containing year wise sales figures for five sales persons in INR. Use the years as column labels, and sales person names as row labels.

	2014	2015	2016	2017
Madhu	100.5	12000	20000	50000
Kusum	150.8	18000	50000	60000
Kinshuk	200.9	22000	70000	70000
Ankit	30000	30000	100000	80000
Shruti	40000	45000	125000	90000

Use the DataFrame created in Question 9 above to do the following:

- a) Display the row labels of Sales.
- b) Display the column labels of Sales.
- c) Display the data types of each column of Sales.
- d) Display the dimensions, shape, size and values of Sales.
- e) Display the last two rows of Sales.
- f) Display the first two columns of Sales.
- g) Create a dictionary using the following data. Use this dictionary to create a DataFrame Sales2.

	2018
Madhu	160000
Kusum	110000
Kinshuk	500000
Ankit	340000
Shruti	900000

- h) Check if Sales2 is empty or it contains data.

Use the DataFrame created in Question 9 above to do the following: a) Append the DataFrame Sales2 to the DataFrame Sales.

- b) Change the DataFrame Sales such that it becomes its transpose.
- c) Display the sales made by all sales persons in the year 2017.
- d) Display the sales made by Madhu and Ankit in the year 2017 and 2018.
- e) Display the sales made by Shruti 2016.
- f) Add data to Sales for salesman Sumeet where the sales made are [196.2, 37800, 52000, 78438,38852] in the years [2014, 2015, 2016, 2017,2018] respectively.

- g) Delete the data for the year 2014 from the DataFrame Sales.
- h) Delete the data for sales man Kinshuk from the DataFrame Sales.
- i) Change the name of the salesperson Ankit to Vivaan and Madhu to Shailesh.
- j) Update the sale made by Shailesh in 2018 to 100000.
- k) Write the values of DataFrame Sales to a comma separated file SalesFigures.csv on the disk. Do not write the row labels and column labels.
- l) Read the data in the file SalesFigures.csv into a DataFrame Sales. Retrieved and display it. Now update the row labels and column labels of Sales Retrieved to be the same as that of Sales

10.BUSINESS STUDIES

1.Do assignments provided in the class for the following chapters: -

Nature and significance of management, principles of management and business environment, planning, organising and staffing.

2. Revise all syllabus done in the class till date and do written practise of it

3.Make notes and mindmaps of all chapters covered in the class

4.Read the newspaper daily and collect any three news related to your subject

Prepare project on any one topic – application of principles of management, business environment.

11.ACCOUNTANCY

1.Do assignments provided in the class for the following chapters: -

Fundamentals, goodwill, change in profit sharing ratio admission and retirement.

2.Revise all syllabus done in the class till date and do written practise of it

3.Read the newspaper daily and collect any three news related to your subject

12.POLITICAL SCIENCE

1.Lok Sabha elections-2024 were conducted in the country recently. Collect the newspaper clippings and compile a detailed report including the National Political

parties, their main leaders and the party manifesto. Do the result analysis of the election.

2.Keep a close check on India's changing position in the international sphere. Present some data which proves that India will be the next superpower.

3.Elucidate India's changing relations with China, Israel and USA.

4.Make a leaflet depicting the specified agencies of United Nations and their main functions and achievements.

5.Read and revise the topics done so far.

6.Collect and compile the content and data for CBSE project work.

Topics and groups are already discussed in class.

Kindly note – Point 1, 2,3 and 4 to be done in Political Science notebook.

13.ECONOMICS

1. Prepare one economics project of your choice (suggestive list of projects discussed in the class). Add the following points: -
 - a. Relevance of the topic
 - b. Knowledge content
 - c. Research work
 - d. Presentation technique
 - e. Case study
 - f. Questionnaire

2. Prepare one art integrated activity of following lessons
 - a) Money and banking
 - b) Government budget
 - c) Foreign exchange
 - d) Balance of payment
3. Read and learn all chapters of indian economic development
4. Read newspaper on daily basis and paste five economics current news in economics register.

5. Prepare a family budget of your family for one month and categorise different sort of receipts and expenditure learnt in the lesson government budget.

14.HISTORY

1.Prepare a scrapbook and paste maps showing the following places in the scrapbook.

A.Important mature Harappan sites :

Harappa, Banawali, Kalibanga, Balakot, Rakhigadhi, Dholavira, Nageshwar, Lothal,

MohenjoDaro , kotDiji, Chanhudaro.

B.Mahajanapada and cities :

Vajji,Magha koshala, Kuru- panchala, Gandhar Avanti, Rajgir ,Ujjain, Takshila and Varanasi

C.Pillar inscriptions of Ashoka :

Sanchi, Topra, Meerut pillar and Kaushambi.

D.Kingdoms of South India :

Cholas, Cheras and Pandyas.

2.Draw pictures of :-

A.Parts of Temples -Shikhar, Garbhagriha, Mandapa.

B.Parts of Stupa - Anda, Harmika, Yashti, Railing, Pradakshina Path, Torandwar.

3.Project work :-

i) Project work will help students

- to develop skills together with data from a variety of sources, investigate diverse issues points.

- to learn to work on diverse cultures, races , religions and lifestyles.

- to develop lasting interest in history discipline.

ii) Topics for project work (on any one topic).

- The Indus Valley Civilisation-Archaeological Excavation and New Perspectives.

- The History and Legacy of the Mauryan Empire.

- “Mahabharata”-The Great Epic of India

- The History and Culture of the Vedic Period

- Numismatics (Coins)
- Capital city- Hampi
- Status of Peasants
- Revolt of 1857 vision of unity behind the first war of independence.
- Buddhism-Path To enlightenment.
- Mahavira
- Stupa
- Mahatma Gandhi and national movement.
- “The Mystical Dimension of Sufism
- Bhakti Movement-Multiple interpretations and commentaries.

Note:-

- the project should be in 30 to 35 pages.
- Hypotheses of your project topic are important so try to think twice before writing anything.
- Bibliography should be written in proper format (Title of writer then Name, then book name then publishing house then pg no)

4.Prepare Art Integrated Model etc. related to your project topic .

5.You are required to write a Classical Historical movie (Hollywood & Bollywood) review (minimum of five paragraphs).

Include the following elements in your Movie review:

A.In the opening paragraph state the title, and briefly summarize the plot and the Historicity of the movie. Describe how you truly feel about the film.

What is your honest reaction to the film?

Did you like/dislike it?

Was it confusing?

Exciting?

Suspenseful?

Boring?

B.In the next three paragraphs analyze the literary, dramatic, and cinematic aspects of the film.

Please use examples from the movie to support your analysis.

i) Gandhi 1982

ii) Lagaan

iii) Sardar Udham

iv) Mahabharata episodes

6. Visit any historical monuments which are present in Delhi and be ready for presentation with your PPT after the vacation. You need to cover all the following points in your PPT :-

A. Where is the monument situated ?

B. Who built the monument ?

C. What was the purpose behind the monument construction?

D. Significance of monument.

E. Architectural features of the monument.

F. Problems and Solutions related to monuments .

Note :- Do not try to take data etc from the Internet or any other social networking site.

7. Revise the chapters done so far from your NCERT textbooks and form at least 20 very short objective type questions with answers from each chapter.

8. Why do we need to study history in the 21st century ? (350 words)

9. Read English newspapers daily and collect at least 10 History related news and paste them on your History Notebook . (National and International)

15.HINDI

प्रश्न - 1. निम्न विषयों पर लगभग 120 शब्दों में रचनात्मक लेख लिखिए -

(क) मेरे गांव की चौपाल

(ख) ई-रिक्शा की सवारी का आनंद

(ग) अच्छे पड़ोस का सुख

(घ) महानगरों में पटरी पर सोते लोग

प्रश्न - 2. आप अपने समाज में धर्म संबंधी अंधविश्वास किन रूपों में देखते हैं? इन्हें रोकने में आपकी क्या भूमिका हो सकती है? संक्षेप में लिखिए।

प्रश्न - 3. 'बिस्कोहर की माटी' (अंतराल- 2) पाठ पढ़कर गांव के बारे में प्राप्त कोई दस जानकारियां लिखिए।

प्रश्न - 4. निम्न में से किसी एक विषय पर परियोजना कार्य तैयार कीजिए -

(क) रामचरितमानस में निहित नैतिक मूल्य

संकेत बिंदु- रामचरितमानस का संक्षिप्त परिचय, रामचरितमानस में निहित विभिन्न नैतिक मूल्यों का सोदाहरण वर्णन।

(पितृ भक्ति, भ्रातृत्व प्रेम, आज्ञा पालन, गुरु भक्ति, त्याग, सेवा, सेवक धर्म, बलिदान आदि)

(ख) हिंदी कविता में प्रकृति चित्रण

संकेत बिंदु- विभिन्न कवियों की कविताओं का तुलनात्मक अध्ययन, भाषा शैली, विशेषताएं, वर्तमान के साथ प्रासंगिकता आदि।

परियोजना कार्य हेतु आवश्यक निर्देश -

परियोजना की शब्द सीमा लगभग 2000 शब्दों की होनी चाहिए।

आवरण पृष्ठ (कवर पेज) - विद्यालय का नाम एवं लोगो, परियोजना कार्य का विषय, विद्यार्थी का नाम, कक्षा एवं अनुक्रमांक

दूसरा पृष्ठ - आभार ज्ञापन

तीसरा पृष्ठ - प्रमाण पत्र

चौथा पृष्ठ - अनुक्रमणिका/ विषय सूची

पांचवा पृष्ठ - प्रस्तावना या भूमिका

छठे पृष्ठ से संपूर्ण परियोजना कार्य अर्थात विषय वर्णन (परियोजना कार्य में सजावट एवं आवश्यकतानुसार चित्रों का प्रयोग किया जाना चाहिए)

अंतिम पृष्ठ - संदर्भ ग्रंथ, स्रोत आदि का नाम

16. PHYSICAL EDUCATION

1. FITNESS KA DOSE ADHA GANTA ROJ

(Do fitness exercise for daily your physical efficiency and for being physically fit.)

2. PROJECT WORK:

- a) Any game of your choice (Volley Ball, Basket Ball, Foot Ball, Cricket)
 - b) Write History, rules and regulations of the game, fundamental skills, terminology, cups, trophies, tournaments and famous player.
3. SAI KHELO INDIA FITNESS TEST: (Purpose, Equipment usage & Procedure)
1. BMI
 2. 50mt. Speed Test
 3. 600mt. Run/Walk
 4. Sit and Reach Test
 5. Partial Curl Test
 6. Push-ups & Modified push-ups
 7. Plate Tapping Test
 8. Flamingo Balance Test

Do Question No. 2 & 3 in your practical file
Calculate your BMI and write in which category you belong.

17. ARTIFICIAL INTELLIGENCE

- 1) Create a computer vision project for recognizing or processing any image by using camera.
- 2) Explain data gathering and feature definition.
- 3) How to validate model quality by using train-test split method?
- 4) Explain trade-offs between cross validation and train test split method.
- 5) Explain model life cycle and write all stage of model life cycle

18. PAINTING

PROJECT 1: SKETCHING

Instructions: MAKE 5 STILL LIFE WATER COLOUR COMPOSITION
USEING VARIOUS TECHNIQUES. (SHEET SIZE A3).

PROJECT 2: PAINTING

Instructions: MAKE 2 PAINTINGS IN MIXED MEDIA. (SHEET SIZE A3)