JAIN BHARATI MRIGAVATI VIDYALAYA

HOLIDAY HOMEWORK

SESSION 2025-26

CLASS XII

NAME- _____

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HOLIDAY HOMEWORK FOR CLASS XII

1. ENGLISH

Q1. Read five unseen passages and attempt the questions given on the basis of your reading of the passage.

Q2. You are Sanjay / Sanajana, of class 12, the President of the Drama club at St John's School, Amritsar. Prepare a notice in 50 words inviting entries for various roles for an upcoming inter-school drama competition.

Q3.You are Aruna Jha/Ashish Jha the Head Girl/Boy of Amity International School. Your school is going to publish the annual magazine,"SPECTRUM" next month. Write a notice for the notice board of your school inviting students to submit write-ups.

Q4.You are Dileep Kumar, the owner of Readwell Stationery Shop, Rohini,New Delhi. Due to insufficient number of customers and low income and profit rates, you have decided to shut down your store. Write a notice informing all the customers about the same and the discount offered on the products.

Q5. Choose recent events (school function, social issue, environmental concern or a local incident).Write four structured news reports following the format:

Headline (Concise and engaging)

Byline(Your name as the reporter)

Opening paragraph (Who, What, When, Where, Why, How)

Details (Background, eyewitness accounts, expert opinions)

Conclusion(Impact, future implications, or official statements)

Q6.Write letters to the editor on the following topics (Invent all necessary details.)

a)Letter highlighting the growing number of road accidents in your city.

b)Letter to encourage students to participate in sports.

c)Letter to create awareness among the citizens about maintaining cleanliness.

d)letter highlighting the increased technological addiction among teens.

Q7. Choose a character (Charley or Sam)from the chapter The Third Level and write a diary entry from the character's perspective, exploring his/her emotions and dilemmas.

Q6. Read all the chapters and poems from Flamingo and Vistas done till date in the class.

Q7 What was the mood in the classroom when M Hamel gave his last French lesson?

Q8.What is the significance of the poem's title, "My Mother at Sixty-Six"? How does the specific age reinforce the themes of ageing and mortality?

Q9 Certain traditions and lineage, condemn thousands of children to a life of abject poverty and choke their aspirations. . Do you agree? Explain.

Q10. Make a Project of about 20-25 pages/sheets . It can be inter-disciplinary in theme. The ideas/issues highlighted in the chapters/ poems/ drama given in the prescribed books can also be developed in the form of a project. You can also take up any relevant and age-appropriate theme. Project may be interview based or survey based.

It should include the following:

• Cover page, with title of project, school details/details of students.

● Statement of purpose/objectives/goals

● Certificate of completion under the guidance of the teacher.

● The Report of 800-1000 words.

● Photographs that capture the positive learning experiences of the student(s).

 ● List of resources/bibliography

Students can choose a topic in sync with their prescribed chapters :

- Problems of Child Labour and existing laws in India (Lost Spring)
- Women Empowerment and Gender sensitization
- Impact of Brain drain on Indian Economy
- Mental health in the workplace: Discussing the importance of mental health in the workplace and ways to create a healthy work environment (The Third Level)
- Importance of education
- Poverty in India(Lost Spring)

2. HINDI

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

(क) इम्तहान के दिन

(ख) मेरा प्रिय टाइम पास

(ग) मेरे मुहल्ले का चौराहा

प्रश्न - 2. रटने की क्रिया किसी भी विद्यार्थी के सोचने- समझने और निर्णय लेने की क्षमता को अवरुद्ध कर देती है। आप इस कथन से कहां तक सहमत हैं ? तर्क सहित उत्तर लिखिए।

प्रश्न - 3. आप अपने समाज में धर्म संबंधी अंधविश्वासको किन-किन रूपों में देखते हैं? इन्हें रोकने में आपकी क्या भूमिका हो सकती है? संक्षेप में लिखिए।

प्रश्न - 4. 'बिस्कोहर की माटी' (अंतराल- 2) पाठ पढ़कर गांव के बारे में प्राप्त जानकारियां लिखिए।

प्रश्न - 5. निम्न में से किसी एक विषय पर परियोजना कार्य तैयार कीजिए -

(क) जयशंकर प्रसाद का नाटक साहित्य

संकेत बिंदु - जयशंकर प्रसाद जी का जीवन परिचय, उनके द्वारा लिखे गए नाटकों के नाम, प्रत्येक नाटक की विषय वस्तु एवं उद्देश्य का उल्लेख, भाषा-शैली

(ख) हिंदी कविता में प्रकृति चित्रण

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

(ग) भारतीय ग्रामीण का जीवन

संकेत बिंदु - आज़ादी से पहले, आजादी के बाद की स्थिति, वर्तमान स्थिति, सुधार की आवश्यकता, आपकी भूमिका/सुझाव/योगदान

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, अध्यापक की टिप्पणी।

3. MATHEMATICS

Q.1 Let R be the relation defined in the set A {1, 2,3, 4,5,6,7,8,9} by
R={(x, y) : x, y ∈A , x and y are either both odd or both even}. Show that R is an equivalence relation. Write all the equivalence classes of set A.

Q.2 Let f : N → N be a function defined as $f(x) = 9x^2 + 6x - 5$. Show that the function f is one-one but not onto.

Q.3 If A = {1, 2,3} and B = {a,b} , write the total number of functions from A to B.

Q.4 If A = {a,b,c} and B= { 2, 1, 0, 1, 2} , write the total number of one-one functions defined from A to B.

Q.5 Find the number of all onto functions from the set {1, 2,3,..., n} to itself.

Q.6 Find the value of a and b for which the following function f is continuous at x = 0

$$f(x) = \begin{cases} 3ax + b, & \text{if } x > 1 \\ 11, & \text{if } x = 1 \\ 5ax - 2b, & \text{if } x < 1 \end{cases}$$

Q.7 Using the matrix method, solve the following system of linear equations :

$$\frac{2}{x} + \frac{3}{y} + \frac{10}{z} = 4, \quad \frac{4}{x} - \frac{6}{y} + \frac{5}{z} = 1, \quad \frac{6}{x} + \frac{9}{y} - \frac{20}{z} = 2.$$

Q.8

Evaluate the product AB, where $A = \begin{bmatrix} 1 & -1 & 0 \\ 2 & 3 & 4 \\ 0 & 1 & 2 \end{bmatrix}$ and $B = \begin{bmatrix} 2 & 2 & -4 \\ -4 & 2 & -4 \\ 2 & -1 & 5 \end{bmatrix}$.

Hence solve the system of linear equations : $x - y = 3$, $2x + 3y + 4z = 17$, $y + 2z = 7$.

Q.9 Find the values of p and q for which following function is continuous at x = π/2

$$f(x) = \begin{cases} \dfrac{1 - \sin^3 x}{3\cos^2 x}, & \text{if } x < \dfrac{\pi}{2} \\ p, & \text{if } x = \dfrac{\pi}{2} \\ \dfrac{q(1 - \sin x)}{(\pi - 2x)^2}, & \text{if } x > \dfrac{\pi}{2} \end{cases}$$

Q.10

If

$$f(x) = \begin{cases} \dfrac{\sin(a+1)x + 2\sin x}{x}, & x < 0 \\ 2, & x = 0 \\ \dfrac{\sqrt{1+bx}-1}{x}, & x > 0 \end{cases}$$

is continuous at x = 0, then find the values of a and b

Q.11 Solve for X, $\tan^{-1}(x+1) + \tan^{-1}(x-1) = \tan^{-1}(8/31)$.

Q.12

Prove that

$$\tan^{-1}\frac{1}{5} + \tan^{-1}\frac{1}{7} + \tan^{-1}\frac{1}{3} + \tan^{-1}\frac{1}{8} = \frac{\pi}{4}$$

Q.13

If $\tan^{-1}\left(\frac{x-2}{x-4}\right) + \tan^{-1}\left(\frac{x+2}{x+4}\right)$ then find the value of x.

Q.14 Solve for x, $\sin^{-1}(1-x) - 2\sin^{-1}x = \pi/2$

Q.15 Prepare a working model on **ANY ONE** of the following chapters

(i) Relations & Functions (ii) Inverse Trigonometric Functions

4. APPLIED MATHEMATICS

1. The cost C(x) and revenue R(x) functions of a firm are:
   $C(x) = 0.001x^3 - 0.03x^2 + 500x + 20000, \ R(x) = 800x$
   Find the output level that maximizes the profit, and calculate the maximum profit.
2. A company's production cost increases rapidly with output. Given $C(x) = 3x^4 - 8x^3 + 12x^2 + 100$, find:
   a) The rate at which cost is changing at x = 2
3. For the function $f(x) = x^5 - 5x^3 + 4x$:
   a) Find all critical points   b) Determine the intervals where the function is increasing or decreasing
   c) Use the second derivative test to classify extrema.
4. The marginal revenue of a product is given by MR(x) = 100 - 4x, and the revenue from selling 10 units is ₹900. a) Find the revenue function R(x)   b) Determine when revenue is maximized.

5. A company's marginal cost is given by MC(x) = 12x² - 60x + 80.
   a) Find the cost function given C(0) = 500   b) Find the output level that minimizes cost.

6. A metal ball is heated such that its temperature T(t) = 100e^(-0.05t) + 20.
   Find the rate of change of temperature at t = 10 seconds, and interpret its meaning in context.

7. The total cost C(x) and total revenue R(x) are: C(x) = 4x + 2000, R(x) = 60x - 0.5x²
   Find the break-even point(s) and determine if profit is increasing or decreasing at x = 30.

8. For the function f(x) = (x³ - 6x² + 9x + 15)/(x - 1):
   a) Find intervals of increase and decrease   b) Identify local maxima and minima.

9. The population of bacteria grows as P(t) = 100e^(0.03t). Find the rate of population growth at t = 5

10. A function f(x) = (2x² + 3x - 2)/(x² - 1) is defined on x ∈ (-∞, -1) ∪ (-1, 1) ∪ (1, ∞).
    a) Find all stationary points   b) Determine nature of those points using the second derivative.

11. A random variable X has the following distribution:
    X: 0 1 2 3   4
    P(X): k 3k 5k 7k 9k
    a) Find the value of k   b) Compute the mean and variance.

12. A biased coin with probability of heads = 0.6 is tossed 5 times. Find the probability of:
    a) Exactly 3 heads   b) At most 2 heads.

13. In a factory, the number of defects per meter follows a Poisson distribution with mean 2.5.
    a) What is the probability that a meter has no defects?   b) Find the probability of 3 or more defects.

14. For a binomial distribution with n = 10, p = 0.3:
    a) Calculate P(X = 2) and P(X ≤ 3)   b) Determine the mean, variance, and mode of the distribution.

15. A machine part has a life span normally distributed with mean 200 hours and standard deviation 20 hours.
    a) What proportion of parts last more than 240 hours?   b) Between 180 and 220 hours?

16. A student takes a multiple-choice test of 8 questions with 4 options each. Probability of guessing correctly is 0.25. Find the probability that: a) Exactly 2 answers are correct   b) At least 5 answers are correct.

17. The weight of mangoes in a crate is normally distributed with μ = 3 kg and σ = 0.4 kg.
    What is the probability a mango weighs:
    a) Less than 2.5 kg   b) Between 2.8 kg and 3.4 kg.

18. A Poisson distribution is used to model customer arrivals at a bank per minute with average
    a) Find probability of exactly 5 arrivals   b) Probability of less than 3 arrivals.

19. A fair die is thrown 6 times. Let X denote number of times a 4 appears.
     a) Find the probability distribution of X   b) Find $P(X \geq 2)$.
20. A normal distribution has mean 60 and standard deviation 15.
     a) Find the z-score for 90   b) Find the probability that a value is above 75.

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.(all 6 activities)

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 90cm2 each and are separated by 2.5mm. The capacitor is charged by connecting it to 400Vsupply. (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. CHEMISTRY

PART-I: NOTEBOOK WORK
Attempt the following questions in your class notebook:
 1. A 10% solution (by mass) of sucrose in water has freezing point of 269.15 K. calculate the freezing point of 10% glucose in water, if the freezing point of pure water is 273.15 K. (Given that the molar mass of sucrose is 342 g/mol and molar mass of glucose is 180 g/mol).
 2. Give reasons:
     (i) Cooking is faster in pressure cooker than in cooking pan.

(ii) Meat is preserved for a longer time by salting.

(iii) Elevation of boiling point of 1 M KCl solution is nearly double than that of 1 M glucose solution.

(iv) Aquatic animals are more comfortable in cold water than in hot water.

3. A 0.01 M aqueous solution of $AlCl_3$ freezes at $-0.068°C$. Calculate the percentage of dissociation.   (Given: K_f for water is 1.86 k kg/mol).

4. Determine the osmotic pressure of a solution prepared by dissolving 25 mg of K_2SO_4 in 2 Litre of water at 25°C assuming it to be completely dissociated. (Atomic masses: K=39u, S=32u, O=16u).

5. Carry out the following conversions:
    (a) But-1-ene to But-2-ene
    (b) 1-Chlorobutane to n-Octane
    (c) Benzene to Biphenyl
    (d) Benzene to 4-Bromonitrobenzene
    (e) 2-Chloropropane to 1-Propanol

6. Tertiary butyl bromide reacts with aq. NaOH by S_N1 mechanism while n-butyl bromide reacts by S_N2 mechanism. Why?

7. The conductivity of 0.20 mol/L solution of KCl is 2.48×10^{-2} S/cm. Calculate its molar conductivity and degree of dissociation. Given that $\Lambda°(K^+) = 73.5$ S cm^2 mol^{-1} and $\Lambda°(Cl^-) = 76.5$ S cm^2 mol^{-1}.

8. Calculate the maximum work and log K_C for the given reaction at 298 K:

   Ni (s) + $2Ag^+$ (aq) $\Longleftrightarrow$ Ni^{2+} (aq) + 2Ag (s); Given: $E°_{(Ni^{2+}/Ni)}= -0.25$ V, $E°_{(Ag^+/Ag)}= +0.80$ V

and $1F = 96500$ C mol^{-1}.

9. Write and learn the chemical reactions taking place at anode and cathode for discharging and charging of lead storage battery.

10. Represent the cell in which the following reaction takes place:

   2 Al(s) + $3Ni^{2+}$ (0.1M) $\longrightarrow$ $2Al^{3+}$ (0.01M) + 3Ni(s), and calculate its emf if $E°_{cell} = 1.41$ V.

PART-II: Practical Record work.
Complete the written work of practicals in file as guided in class.

PART-III: Project work.
Make an investigatory project for your final practical assessment according to the assigned topics to each
Student.

7. <u>BIOLOGY</u>

1. **Justify the followings**

a) Apomictic seeds are useful for Agriculturalists.

b) Morgan's selection of Fruit fly for his experiments.

c) Mendel's success

d) Mostly males are affected by Haemophilia or Colour-blindness, females are rarely affected

e) Saheli is an ideal contraceptive.

f) Thalassemia can be prevented

2. **Prepare Punette Square for.**

a) Incomplete Dominance

b) Codominance

c) Pleiotropy

d) Multiple allelelism

e) Polygenic inheritance

3. **Explain sex determination mechanism in**

a) Humans   b) Fruitflies

c) Birds   d) Insects

e) Honey bee

4. **Collect information (Cause and symptoms) of 5 Genetic and 5 Chromosomal disorders**

5. **Prepare the mind maps of the following:-**

A. Embryo development in Plants

B. Endosperm development

C. Spermatogenesis

D. Oogenesis

E. Human Embryonic development.

6. Explain the hormonal feedback mechanism of Spermatogenesis and   Oogenesis.

7. Draw a diagram and explain the changes that take place during different   phases of menstrual cycle in

a) Graffian follicle

b) Endometrial thickening

c) FSH,LH

d) Estrogen & Progesteron

  8. Explain with diagram the human embryonic development from fertilization to parturation.

  9 Explain

a) Out breeding devices in plants

b) Natural methods of contraception

c) Chemical contraceptives.

10. As a student of Biology suggest some recent advancements in medical field by which an infertile couple can have a baby.

11. Complete your Laboratory record.

12. Complete your Investigatory Project Report.

13. Find out 10 interesting career options related to Biology.

14. Collect information regarding recent discoveries or development in the field of Biology.

8. ARTIFICIAL INTELLIGENCE

1) Create your Artificial Intelligence project based on any three domain of AI (Computer Vision, Data Science & NLP).
2)
   - ➢ Complete your project log book.
   - ➢ Complete PPT based on your project.
   - ➢ Complete Video presentation based on your project.
3) Explain DATA SCIENCE METHODOLOGY with block diagram.
4) Explain the procedure of k-fold cross validation with suitable diagram.
5) Calculate MSE and RMSE values for the data given below using MS Excel.

Actual (A)	Predicted (P)
100	110
120	125
150	145
170	165
200	190
210	205
220	225
250	240
300	310
350	340

6) Given a confusion matrix, calculate Precision, Recall, F1 score and Accuracy.
   TN – 90
   TP – 70
   FP – 30
   FN – 25

7) How can we add new rows and columns to an existing DataFrame? Explain with code examples.
8) How do you create a DataFrame from a dictionary in Pandas?
9) What is the difference between `.loc[]` and `.iloc[]`?

10) Create a Pandas DataFrame with the following data:

Name	Age	City
Anil	23	Mumbai
Beena	25	Delhi
Chetan	30	Chennai

9. COMPUTER SCIENCE

WEEK 1
1. Write a Python program to sum all the items in a list.
2. Write a Python program to get the largest number from a list.
3. Write a Python program to count the number of strings where the string length is 2 or more and the first and last character are same from a given list of strings. Sample List : ['abc', 'xyz', 'aba', '1221']
4. Write a Python program to remove duplicates from a list.
5. Write a Python program to generate and print a list of first and last 5 elements where the values are square of numbers between 1 and 30 (both included).

WEEK 2
1. Write a Python program to count the number of characters (character frequency) in a string.
   Sample String : google.com'

   Expected Result : {'o': 3, 'g': 2, '.': 1, 'e': 1, 'l': 1, 'm': 1, 'c': 1}

2. Write a Python program to get a string from a given string where all occurrences of its first char have been changed to '$', except the first char itself.
   Sample String : 'restart'

   Expected Result : 'resta$t'

3. Write a method in python to display the elements of a list twice if it is a number and display the element terminated with '*' if it is not a number.
4. Write a user defined function findname(name) where name is an argument in python to delete phone number from a dictionary phonebook on the basis of the name ,where name is the key.

5. Write a program to input employee number and name for N employees and display all employees' information in ascending order of their employee number.

<u>WEEK 3</u>

1. Write an interactive menu driven program with the following four functions:

(a) To create a text file called "Nation.txt"

(b) Display the file

(c) Append relevant content to the file

(d) Make a copy of the file

(e) Count the total number of "the" in the file

<u>WEEK 4</u>

1. A blood bank maintains data file "Blood.dat" that contains following information for every donor: donor name, donor date of birth, donor address, donor phone number and donor blood group. Write a complete program to do the following: a) Create a file of the donor

b) Append a record in the file
c) Display the records
d) Given the blood group display name, address of the donor
e) Modify the existing information of the donor

10. ACCOUNTANCY

I. Prepare Survey-Based Project on any one of the following topics:

1. Financial Literacy Among Teenagers

- **Objective**: Assess students' understanding of budgeting, savings, investments, and basic accounting.
- **Survey Focus**: Awareness of debit/credit, budgeting habits, pocket money management, digital transactions.
- **Concepts Covered**: Accounting basics, cash management, financial awareness.

2. Record-Keeping Practices in Small Businesses

- **Objective**: Examine how local vendors (kirana shops, cafes, salons) maintain accounts.
- **Survey Focus**: Manual vs. digital accounting, frequency of record updates, challenges faced.
- **Concepts Covered**: Bookkeeping, preparation of accounts, real-world application of ledger and cash books.

3. Understanding of Partnership Firms in Your Locality

- **Objective**: Investigate how partnerships are formed, profits shared, and decisions made.
- **Survey Focus**: Capital contribution, partnership deed, decision-making process, conflict resolution.
- **Concepts Covered**: Partnership accounts, deed, adjustments, profit-sharing ratio.

4. Awareness of Cash Flow Management Among Middle-Class Families

- **Objective**: Understand how families budget income and expenses.
- **Survey Focus**: Major income sources, saving patterns, monthly expense categories.
- **Concepts Covered**: Cash flow statement, budgeting, financial discipline.

5. Students' Perception of Online Accounting Tools (Tally, QuickBooks)

- **Objective**: Measure awareness and readiness to adopt digital accounting software.
- **Survey Focus**: Knowledge level, willingness to learn, importance in future careers.
- **Concepts Covered**: Digital accounting, modern tools, technology integration.

Structure for the Survey Report

1. **Title Page**
2. **Objective**
3. **Introduction**
4. **Methodology** (how the survey was conducted)
5. **Survey Questions**
6. **Data Analysis** (charts, graphs)
7. **Findings**
8. **Business Implications**
9. **Conclusion**
10. **Bibliography**

II. Watch following Movies in your free time and write one page about your takeaway from the movie- like what values you have learnt from the movie- entreprnuial skills,decision making leadership etc.

- ❖ Rocket Singh: Salesman of the Year
- ❖ Udaan
- ❖ Bazzar
- ❖ Corporate

III. Make a PPT on any one chapter of the syllabus.

IV. Practice and Revise the syllabus completed till date in the class.

11.BUSINESS STUDIES

I. Prepare Survey-Based Project on any one of the following topics:

1. Consusmer Buying Behavior Towards Eco-Friendly Products

- **Objective**: Understand consumer preferences and awareness of sustainable products.
- **Survey Focus**: Age group, awareness, willingness to pay more, brand preferences.
- **Concepts Covered**: Marketing, social responsibility, branding.

2. Impact of Social Media Advertising on Teen Buying Habits

- **Objective**: Analyze how platforms like Instagram and YouTube influence buying decisions.
- **Survey Focus**: Preferred influencers, purchase frequency, ad recall.
- **Concepts Covered**: Advertising, marketing strategies, promotion mix.

3. Awareness and Usage of Digital Payment Systems Among Local Businesses

- **Objective**: Study the adoption of UPI, Paytm, etc., in small shops.
- **Survey Focus**: Type of digital tools used, ease of use, challenges faced.
- **Concepts Covered**: Business environment, technology in business.

4. Brand Loyalty Among Students: Apple vs. Samsung

- **Objective**: Understand why students prefer certain tech brands.
- **Survey Focus**: Factors influencing choice—price, quality, peer influence.
- **Concepts Covered**: Brand positioning, product differentiation, consumer behavior.

5. Post-COVID Business Adaptations in Local Enterprises

- **Objective**: Examine how local businesses changed operations post-pandemic.
- **Survey Focus**: Online delivery, safety protocols, customer interaction.
- **Concepts Covered**: Business environment, innovation, entrepreneurship.

Structure for the Survey Report

1. **Title Page**
2. **Objective**
3. **Introduction**
4. **Methodology** (how the survey was conducted)
5. **Survey Questions**
6. **Data Analysis** (charts, graphs)
7. **Findings**
8. **Business Implications**
9. **Conclusion**
10. **Bibliography**

II. Watch following Movies in your free time and write one page about your takeaway from the movie- like what values you have learnt from the movie- entreprnuial skills,decision making leadership etc.

- ❖ Rocket Singh: Salesman of the Year
- ❖ A Wednesday: Crisis Management and Decision Making
- ❖ Special 26
- ❖ 3 Idiots

III. Make a PPT on any one chapter of the syllabus

IV. Read and Revise the syllabus completed till date in the class.

12.ECONOMICS

1.. **Make a project File using punch sheet on any one of the following topics.**

Suggestive List of Projects:

• Micro and Small-Scale Industries

• Food Supply Channel in India

• Contemporary Employment situation in India

• Disinvestment policy of the government

• Goods and Services Tax Act and its Impact on GDP

• Health Expenditure (of any state)

• Human Development Index

• Inclusive Growth Strategy

• Self-help group Trends in Credit availability in India

• Monetary policy committee and its functions

• Role of RBI in Control of Credit

• Government Budget & its Components

• Trends in budgetary condition of India

• Exchange Rate determination – Methods and Techniques

• Currency War – reasons and repercussions

• Livestock – Backbone of Rural India

• Alternate fuel – types and importance

• Sarwa Siksha Abhiyan – Cost Ratio Benefits

• Golden Quadrilateral- Cost ratio benefit

• Minimum Support Prices

• Relation between Stock Price Index and Economic Health of Nation

• Waste Management in India – Need of the hour

• Minimum Wage Rate – approach and Application

• Digital India- Step towards the future

• Rain Water Harvesting – a solution to water Crises

• Vertical Farming – an alternate way

• Silk Route- Revival of the past

• Make in India – The way ahead

• Bumper Production- Boon or Bane for the farmer

• Rise of Concrete Jungle- Trend Analysis

• Organic Farming – Back to the Nature

• Any other newspaper article and its evaluation on basis of economic principles

• Any other topic

2. **Prepare short notes,** explaining reasons for implementing New economic policy and steps taken by

government under Liberalisation, privatisation and globalisation on A4 size sheets after reading and

understanding chapter 3 of Indian Economic Development with help of the following

YouTube link

https://www.youtube.com/watch?v=WYaIXWd9a2U

3. Prepare **flash cards** with formulas of **Money banking and Government Budget.**

4. Read the chapter: Development Experience of India: a Comparison with neighbours from book of Indian Economic Development and **prepare PPT** on the following topics:

a) Demographic indicators

b) Human development indicators

c) Gross domestic product and sectors

5. **Economics in the News:** Analyze a current economic event and explain its impact using economic principles.

6.**Short Film/Documentary:** Create a short film/documentary explaining a complex economic concept like inflation, globalization or any other topic of your choice.

7. **Revise the work done** till date in the class both in Indian Economic Development and Macro Economics.

13.**HISTORY**

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

 A.Important mature Harappan sites :

Harappa, Banavali, Kalibanga, Balakot, Rakhigadhi, Dholavira, Nageshwar, Lothal, MohenjoDaro , kotDiji, Chanhudaro.

B.Mahajanapada and cities :

Vajji,Magdha 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 workhas been given in the class.

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.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 construction of monument?

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.

6.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.

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

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

14.POLITICAL SCIENCE

- ❖ Make a detailed report on India-Pakistan relations since independence specially referring the recent clashes after the Pahalgam terrorist attack. Do you think India need to review its No First Use policy in the contemporary security issues?
- ❖ 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.
- ❖ Make a leaflet depicting the specified agencies of United Nations and their main functions and achievements.
- ❖ Make a PPT on any one chapter of the syllabus.
- ❖ Read and revise the topics done so far.
- ❖ Collect and compile the content and data for CBSE project work.
  Topics and groups are already discussed in class.

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

15.PHYSICAL EDUCATION

1. "SPORTS AND FITNESS: A LIFESTYLE, NOT A TASK" To promote physical fitness and mental well-being through regular exercise, perform any physical activity (Yoga, Jogging, Strength Training, Dance, Cycling, Running, Exercise etc.) for 30 minutes daily.

2. PROJECT WORK: ➢ Choose any one game: Volley Ball, Basket Ball, Foot Ball ➢ Create an Illustrated File (use diagrams & images) covering: 1. History and Origin of the game 2. Rules and Regulations of the game 3. Fundamental Skills and Techniques 4. Terminology, Field Diagram, Famous Cups, Trophies and Tournaments 5. Famous player (Indian & International)

3. SAI KHELO INDIA FITNESS TEST Write the Purpose, Equipment & Procedure of the following tests: 1. Body Mass Index (Also calculate your BMI and find your category) 2. 50mt. Speed Test 3. 600mt. Run/Walk 4. Sit and Reach Test 5. Partial Curl Test 6. Push-ups & Modified push-ups

❖ Do Question No. 2 & 3 in your practical file.

16.INFORMATICS PRACTICES

1.Observe the following data:

	PNAME	PRICE	COMPANY	QTY
P1	TV	25000	LG	10
P2	AC	10000	WHIRLPOOL	5
P3	TV	12000	SONY	15
P4	WM	28000	WHIRLPOOL	12
P5	AC	15000	LG	8
P6	TV	15000	LG	5

Answer the following questions on the basis of above data1. Create DataFrame product for above data.

Create DataFrame product for above data.

2. display complete data from DataFrame

3. Display no. of rows in DataFrame

4. Display no. of columns in DataFrame

5. Display product name from above dataframe.

6. Display details of products from P2 to P4.

7. Display columns from pname to price for all products.

8. Display columns from pname to price for P2 to P4 products.
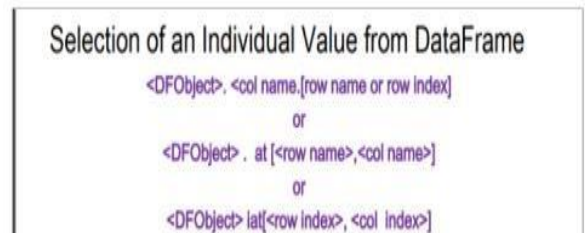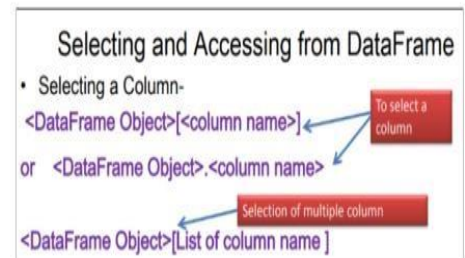
9. Display the Pname and price of all products.

10. Display the detail of P2 product only.

11. Display the record of p2 and p5 products.

12. Display the pname and price of p2 and p5 products.

13. Display pname of p4 product.

14. Display price of p2 product.

Selecting and Accessing from DataFrame

- Selecting a Column-

`<DataFrame Object>[<column name>]` To select a column

or `<DataFrame Object>.<column name>`

Selection of multiple column

`<DataFrame Object>[List of column name ]`

Selection of subset from DataFrame

`<DataFrameObject>.loc [<StartRow> : <EndRow>, <StartCol> : <EndCol>]`

Selection of an Individual Value from DataFrame

`<DFObject>. <col name.[row name or row index]`

or

`<DFObject> . at [<row name>,<col name>]`

or

`<DFObject> iat[<row index>, <col index>]`

Accessing and modifying values in DataFrame

a) Syntax to add or change a column-

`<DFObject>.<Col Name>[<row label>]=<new value>`

15. To replace all NaN values with 0.

16. To delete those record which has NaN Value.

17. To replace all NaN values with 10 in qty column.

18. To display product wise minimum and maximum price.

19. To display product wise total price and total qty.

17.PSYCHOLOGY

1. **Write you Case Profile** (Case Study Material) including Introduction, Definitions, Types, Causes, Intervention and Management, Prevalence and Incidence in India etc. The case profile will include developmental history of the subject using both qualitative and quantitative methods. Qualitative methods include observation, interview etc. The main objective of preparing a case profile is to understand the individual in totality. You may prepare a case profile of an individual who has excelled in areas like sports, academics, music etc. or having special needs like learning disability, autism or those with interpersonal social problems i.e. poor body image, obesity, temper tantrums, substance abuse, not getting along with peers, withdrawn etc You may find out the background information and developmental history of the individual.
SUGGESTED FORMAT FOR PREPARING A CASE PROFILE
   • Contents
   • Certificate
   • Acknowledgement
   • What is a case study
   • Preliminary information
   • Family tree
   • Birth history
   • Information about socioeconomic status consisting of information about
   mother's/father's education and occupation, number of members in the family-brothers, sisters and their birth order
   • Information about physical health, physical characteristics.
   • Why did you choose your subject
   • How did you approach your subject
   • How did you make rapport with your subject
   • Methods used
   • Childhood history
   • Adolescent stage
   • Relationships with father, mother, sibling, friends, teacher (under separate headings •
   Psychometric testing
   • Any other information
   • Analysis

2. Complete your **Practical file** for all the five practicals.

3. Prepare **a chart/Model** on any topic from ch-1 & 2 to be displayed in your Psychology Lab.

4. Make a **crossword** of your own from chapter 2.

5. Learn **NCERT based question answers** of chapter 1st and 2nd.

6. **Do the given questions in Psychology Register**-

1. . (a) How are traits different from types? Give examples. (b) Using Allport's theory, Identify the various types of traits in the given situation. Explain them in detail. "Supriya is a very warm and friendly girl who is often known as the Florence Nightingale of the class. She is a very traditional girl who always prefers to wear Indian or ethnic clothes. She hates the western culture especially the trend of going to parties and discotheque.
2. "Rahima is a7yrs old girl who lives in an orphanage. She is very clear with the abstract concepts like Religion, God, unity and oneness without anyone's guidance or teaching." a) Which personality theory do you think relates to such experiences? b) Name the psychologist who gave this theory? c) Explain the theory and its concepts in detail
3. Write short notes on: (i) Levels of consciousness (ii) Structure of personality (iii) Analytical psychology (iv) Individual psychology (v) Erikson's theory of personality (vi) Self-actualization (vii) Selfreport measures (viii) Projective techniques (ix) Nomination method (x) Situational stress test
4. Answer the following short answer type questions. (a) What is a normal probability curve? (b) Differentiate between talent and giftedness. (c) What is CAS?
5. Rita is learning music. Many times, she has to miss her favourite serial as she has to go for music classes. Also, she wakes up early to practice despite her love her sleep. Which concept from the chapter self and personality can you link to this situation?
6. If a psychologist is evaluating you by asking your response to ink blots, which form of assessment is the psychologist using? List any two features of this form of assessment
7. People who are confident, can solve problems, confront the things that frighten them and nurture themselves are all qualities of which Behavioural aspect of self. Write a note on it.

18.COMMERCIAL ART

PROJECT 1: SKETCHING

Instructions: MAKE TEN **STILL LIFE** COMPOSITIONS USING VARIOUS TECHNIQUES (WATER COLOUR/ PENCIL SHADING, SHEET SIZE A3).

PROJECT 2: POSTER MAKING

Instructions: MAKE TEN POSTERS IN MIXED MEDIA. (SHEET SIZE A3)

PROJECT 3: LOGO MAKING

Instructions: MAKE TWO LOGO DESIGN. (BLACK AND WHITE/ COLOURED. SHEET SIZE A3)

PROJECT 4: CALLIGRAPHY WRITING

Instructions : MAKE TWO SLOGANS . (ENGLISH/HINDI, SHEET SIZE A3)

PROJECT 5: ILLUSTRATION

Instructions: MAKE TWO ILLUSTRATIONS ON A SPECIFIC SITUATION. (SHEET SIZE A3)