ARMY PUBLIC SCHOOL JAMMU CANTT
HOLIDAYS HOMEWORK-XII (2023-24)

ENGLISH (301)

Dear Children
We wish you happy and safe summer break. To maintain the educational continuum and to keep boredom at bay, your teachers have designed enriching assignments and projects which will keep you constructively busy.
So, don your thinking cap and wear your magic mantle to unleash your creative side.
Have Fun!!!

WRITING SECTION

1. Write your views on the contemporary topic 'G- 20 and its relevance for India (100-120 words)
2. Write your views on 'Effect of examination assessment post COVID on Education System' in 100-120 words.

LITERATURE SECTION

Revise the syllabus done in the class & prepare yourself for the assessment to be held post summer vacation.

ART INTEGRATED ACTIVITIES

I know you can do wonders, my highly creative children..!

1. Create illustrated comic strips representing events from history or work of fiction or a chapter or poem from your literature book. You can either unleash your creativity by drawing comics or use apps to create them.
2. Prepare a PPT for the chapter The Third Level.

PHYSICS (042)

PRACTICALS:

Write down at least 8 Experiments on your practical notebook [with 4 from each section], to be performed by the students. Also record at least 6 Activities [with 3 each from section A and section B].

INVESTIGATORY PROJECTS – PHYSICS:

As per C.B.S.E. guide lines all students have to prepare one Investigatory Project carrying 3 marks. All students are therefore, advised to prepare one Investigatory Project on any one of the following topics or any other topic of their choice based on concept of physics after consulting the teacher during the summer vacation.

POINTS FOR MAKING PROJECT FILE:

The material should be placed and bound in the following order:

1. The first page of your report should carry the following information in printed form or handwritten in neat block letters;
   (i)Name of school (ii) Title of Project (iii) Name of Student (iv) Class sec. &Roll Number.
2. Aim of Project:
3. Apparatus required:
4. Principle/Theory:
5. construction with Labeled diagram:
6. Working:
7. Observations:
8. Calculation:
9. Result/Conclusion:
10. Applications:
11. Graphs If Any:
12. References/bibliography:
13. Back Cover of plastic: may be opaque or transparent:

List of Investigatory Projects:

1. To study and construct Gold leaf Electroscope.
2. To study and construct A.C. Generator/ Motor.
3. To study and construct Transformer.
4. To study and show Diffraction of light.
5. To investigate the dependence of the angle of deviation on the angle of incidence using a hollow prism f filled, one by one, with different transparent fluids.
6. To study the variation in potential drop with length of the wire for a steady current.
7. To study the effect of intensity of light on LDR.
8. To study and construct half/full wave rectifier.

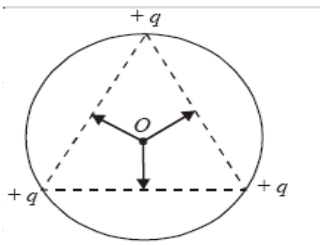
THEORY:

- Solve the CBSE previous year questions of chapter- Electric field and charges & Electric Potential and Capacitance.
- Solve the examples and NCERT Textbook exercises of chapter-1 & 2 in your notebook.

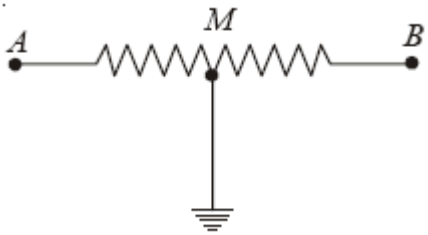
➢ Also solve the following questions.

1. The weight of a positively charged oil drop is balanced by producing electric field between two parallel plates. What is the direction of the electric field?

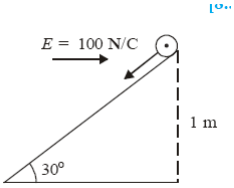
2. Three small spheres each of a charge +q are placed on the circumference of a circle such that they form an equilateral triangle. What is electric field intensity at the centre of the circle?



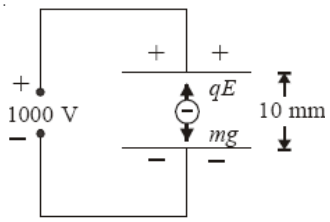
3. In Fig. the potential difference between points A and B is 240V. If the mid-point M of AB is earthed, what are the potentials of A and B?



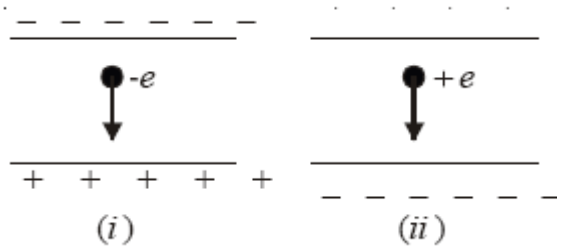
4. An inclined plane making an angle of 30° with the horizontal is placed in a uniform horizontal electric field of 100N/C [See Fig.]. A particle of mass 1kg and charge 0.01C is allowed to slide down from rest from a height of 1m. If the co-efficient of friction is 0.2, find the time taken by the particle to reach the bottom.(g = 9.8 ms^{-2}).



5. Two horizontal parallel plates 10 mm apart have a p.d. of 1000 V between them; the upper plate being at +ve potential. If a negatively charged oil drop of mass 4.8 × 10–15 kg is held stationary between the plates, find the number of electrons on the drop (Take g = 10 ms–2, electron charge, e = 1.6 × 10–19 C).



6. An electron falls through a distance of 4 cm in a uniform electric field of 3 × 104 N/C. When the direction of field is reversed, a proton falls through the same distance. Calculate the time of fall in each case. Why is the effect of gravity negligible in such cases?



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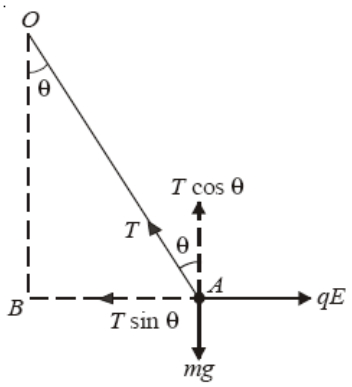
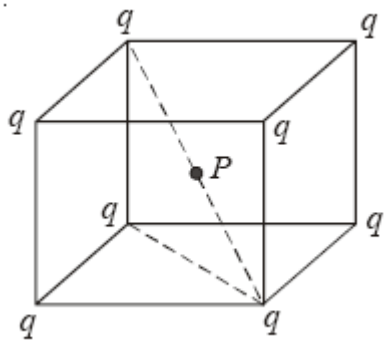
7. A pendulum bob of mass 80 milligram and carrying a charge of 2 × 10–8 C is at rest in a horizontal uniform electric field of 2 × 104 V/m. Find the tension in the thread of the pendulum and the angle it makes with the vertical.

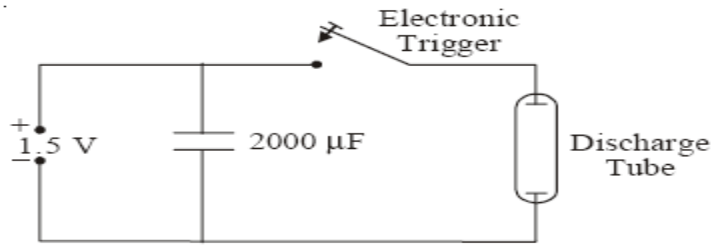


8. A particle of mass 10–3 kg and charge 5 μC is thrown at a speed of 20 ms–1 against a uniform electric field of strength 2 × 105 N/C. How much distance will it travel before coming to rest momentarily?

9. A cube of side a has charge q at each of its vertices. Find the potential and electric intensity due to these charges at the centre of the cube.



10. Parallel metal plates 3 mm apart carry equal and opposite charge densities of ± 2 μC/m2. A proton (q= e and m = 1.67 × 10–27 kg) is released from rest at the positive plate. What is the speed of proton just as it strikes the negative plate? Assume the space between the plates is a vacuum.
11. A parallel plate capacitor has three similar parallel plates. Find the ratio of capacitance when the inner plate is mid-way between the outers to the capacitance when inner plate is three times as near one plate as the other.
12. Fig. shows a circuit for a camera flash. A 2000 μF capacitor is charged by 1.5V cell. When a flash is required, the energy stored in the capacitor is made to discharge through a discharge tube in 0.1 ms giving a powerful flash. Calculate the energy stored in the capacitor and power of the flash.



Note: *All work should done on respective copy/practical file in a neat and proper order as provided above.*

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CHEMISTRY (043)

Read textbook material

1. Vapour pressure and ideal solution
2. Colligative properties and abnormal molar mass
3. Electrochemical and electrolytic cell
4. Physical and chemical properties of haloalkanes and Haloarenes

THEORY ASSIGNMENT

Solve NCERT exercises of the following chapters:

1. Solution(colligative properties)
2. Electro chemistry
3. Haloalkanes and Haloalkanes

Solve at least five numerical based on each given formulas:

1. Raults law for volatile solute and solvent

   $Ps = P_1 + P_2$ (1 solvent , 2 solute)
2. Raults law for non volatile solute

   $(P0 – Ps)/P0 = iX_2$ (X2 mole fraction of solute)
3. Elevation in boiling point.

   Ts-T1 = iKb(m) (Ts-T1 is change in bp of solution)
4. Depression in freezing point

   T1- Ts = iKf(m)
5. Osmotic pressure

   Pi = iCRT

CONVERT:

(a) 2-Bromopropane to 1-bromopropane
(b) aniline into cholobenzene
(c) Ethyl chloride into ethyl alcohol
(d) Ethyl chloride to ethane
(e) Chlorobenzene into toluene
(f) Chlorobenzene to phenol
(g) Ethyl bromide to diethyl ether

ROLL NO.	TOPICS
1 , 13 ,25	To study adulterant in some food items.
2 , 14,26	Preparation of soyabean milk and its comparison with natural milk
3 , 15,27	To determine the quantity of casein in different sample of milk
4 , 16,28	To study the rate of fermentation of different food items
5 , 17 , 29	Extraction of essential oil present in aniseed , carum and cardamon.
6 , 18, 30	To determine the content of cold drinks
7 , 19 31	To study the effect of dyes on different types fabrics
8 , 20,32	Metal coupling in rusting of iron
9 , 21,33 ,37	To study the effect of sodium carbonate on foaming capacity of different soaps
10 , 22,34	To study and calculate the content of ascorbic acid in different citrus fruits.
11 , 23, 35	To determine caffeine in different sample of milk
12 , 24 , 36	To study the effect of potassium bisulphate as a food preservative under various condition.

ART INTEGRATED ACTIVITY

Make a PowerPoint presentation on any of the following topics:

1. **Electrochemical cell and electrolytic cell**
2. **Colligative properties**
3. **Raoult's law , Ideal and Non-Ideal solution**

Note: *All work should done on respective copy/project file in a neat and proper order as provided above*

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MATHEMATICS (041)

1. Show that the function $f:(-\infty,0) \longrightarrow (-1,0)$ defined by f(x) $=\frac{x}{1+|x|}$, $x \in (-\infty,0)$ is one-one and onto.
2. Let R be the relation on set A of ordered pairs of positive integers defined by (x, y) R (u , v) if and only if xv = yu. Show that R is an equivalence relation.
3. Show that the number of equivalence relations in the set { 1 , 2, 3 } containing (1 , 2) and (2 ,1) is two.
4. Show that the relation R on R defined as $R = \{(a,b): a \leq b\}$, is reflexive and transitive but not symmetric.

CASE STUDY

5. An organization conducted bike race under two categories – Boys and girls. There were 28 participants in all. Among all of them, finally three from category 1 and two from category 2 were selected for the final race. Ravi forms two sets B and G with these participants for his college project. Let B = $\{b_1,b_2,b_3\}$ and G =$\{g_1,g_2\}$, where B represents the set of Boys selected and G set of Girls selected for the final race.

Based on the above information, answer the following questions.

(i) How many relations are possible from B to G?

(ii) Among all the possible relations from B to G, how many functions can be formed from B to G?

(iii) Let R: B⟶B be defined by R={(x,y): x and y are students of the same sex}. Check if R is an equivalence relation.

CHAPTER: 2. INVERSE TRIGONOMETRIC FUNCTIONS

1. Prove that : $2\tan^{-1}\frac{1}{2}+\tan^{-1}\frac{1}{7}=\tan^{-1}\frac{31}{17}$.
2. Prove that : $\cos^{-1}\frac{12}{13}+\sin^{-1}\frac{3}{5}=\sin^{-1}\frac{56}{65}$.
3. Find the value of $sin\left(\cos^{-1}\frac{4}{5}+\tan^{-1}\frac{2}{3}\right)$.
4. Prove that $\sin^{-1}\frac{4}{5}+\sin^{-1}\frac{5}{13}+\sin^{-1}\frac{16}{65}=\frac{\pi}{2}$
5. $tan^{-1}\left(\frac{\sqrt{1+x}+\sqrt{1-x}}{\sqrt{1+x}-\sqrt{1-x}}\right)=\frac{\pi}{4}-\frac{1}{2}\cos^{-1}x\ ;\ -\frac{1}{\sqrt{2}}\leq x\leq 1.$

CHAPTER: 3 MATRICES

1. If $A=\begin{bmatrix}2 & 0 & 1\\ 2 & 1 & 3\\ 1 & -1 & 0\end{bmatrix}$, find $A^2-5A+4I$ and hence find a matrix X such that $A^2-5A+4I+X=0$.

2. If $A = \begin{bmatrix} 1 & 3 & 2 \\ 2 & 0 & -1 \\ 1 & 2 & 3 \end{bmatrix}$, then show that $A^3 - 4A^2 - 3A + 11I = 0$.
3. Express the matrix $A = \begin{bmatrix} 2 & 4 & -6 \\ 7 & 3 & 5 \\ 1 & -2 & 4 \end{bmatrix}$ as the sum of symmetric and a skew symmetric matrix.
4. If A is a matrix of order 2 x 3 and B is a matrix of order 3 x 5, then what is the order of matrix $(AB)^t$?
5. For keeping Fit **X** people believes in morning walk, **Y** people believe in yoga and Z people join Gym. Total no of people are 70.further 20% 30% and 40% people are suffering from any disease who believe in morning walk, yoga and GYM respectively. Total no. of such people is 21. If morning walk cost Rs 0 Yoga cost Rs 500/month and GYM cost Rs 400/ month and total expenditure is Rs 23000.
   a. Formulate a matrix problem.
   b. Calculate the no. of each type of people.
   c. Why exercise is important for health.

CHAPTER: 4 DETERMINANTS

1. Find the adjoint of the matrix $A = \begin{bmatrix} -1 & -2 & -2 \\ 2 & 1 & -2 \\ 2 & -2 & 1 \end{bmatrix}$ and hence show that A.(adjA)=$|A|I^3$.
2. Find the value of k if the area of the triangle with vertices (-3,0),(3,0) and (0,k) is 9 sq. units.
3. A shopkeeper has 3 varieties of pens A,B and C. Meenu purchased 1 pen of each variety for a total of Rs.21. Jeevan purchased 4 pens of 'A' variety, 3 pens of 'B' variety and 2 pens of 'C' variety for Rs.60. While Shikha purchased 6 pens of 'A' variety, 2 pens of 'B' variety and 3 pens of 'C' variety for Rs. 70. Using matrix method, find cost of each variety of pen.
4. Evaluate the product AB, where, $A = \begin{pmatrix} 1 & -1 & 0 \\ 2 & 3 & 4 \\ 0 & 1 & 2 \end{pmatrix}$ and $B = \begin{pmatrix} 2 & 2 & -4 \\ -4 & 2 & -4 \\ 2 & -1 & 5 \end{pmatrix}$. Hence solve the system of linear equations:
   x-y=3, 2x+3y=17, y+2z=7.

ACTIVITY WORK:

(DO THESE ACTIVITIES ON MATHS LAB MANUAL)

1. To demonstrate a function which is not one-one but is onto.
2. To demonstrate a function which is one-one but not onto.
3. To draw the graph of $\sin^{-1} x$, using the graph of sin x and demonstrate the concept of mirror reflection (about the line y=x).

ART INTEGRATED PROJECT (DO IT ON A SEPARATE FILE)

Comparison of Gujarat and Jammu and Kashmir in terms of population, folk dances, literacy rate and climate.

NOTE:

1. Maintain your notebook.
2. Revise following chapters during summer break:
   a) Relations and functions
   b) Inverse trigonometric functions
   c) Matrices
   d) Determinants

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BIOLOGY (044)

Revise the following chapters:

1. Sexual Reproduction in flowering plant
2. Human Reproduction
3. Reproductive health

Complete NCERT questions; NCERT Exampler questions in your note book.

INVESTIGATORY PROJECT – (Any one)

NOTE: Students will select one project out of the following and send in the group, one who will select the project first will be allocated with that project. Prepare a written report as per the format discussed in the class, on topics provided related to the field of biology. [Maximum of 10-15 A-4 size pages]

S No	Topics
1	Transgenic animals
2	Medicinal drugs that are banned across the world
3	Biodiversity and in situ and ex situ conservation
4	Ethical issues in DNA fingerprinting and biotechnology
5	Ecological successions- their significance in evolution
6	Ecosystem services: How much do we care?
7	Reproductive health/ Sexually Transmitted Diseases
8	Gene therapy
9	Biomagnification
10	Drugs and their abuse
11	Pollination adaptations
12	Microbes in human welfare
13	Allergies
14	Outbreeding devices in flowering plants and its significance
15	Medicinal plants in our surroundings
16	Seed dispersal mechanisms and significance of dispersal
17	Immunity

ART INTEGRATION PROJECTS

A short informative visual presentation (video of 3-5 minutes) on any of the social problems related to biology. The presentation should include-Explaining the selected problem briefly. Solution to the problem. How the solution can be implemented?

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COMPUTER SCIENCE (083)

Revise the following chapters:

1. Python Revision Tour-I
2. Python Revision Tour-II
3. Working with Functions
4. Using Python Libraries
5. File Handling

PRACTICAL WORK

Instructions regarding CS Practical File.

1. Purchase Computer Science Practical File (Sangam).
2. Write all the following programs in the file in the same sequence.
3. You have to write the code on the ruled sheet and the output on the plain sheet of the file.
4. Don't write two programs on the same sheet.
5. Use blue pen to write the code and pencil to write the output.
6. You have to also perform the practical and make a pdf of the executed code as well as output.

S. No.	NAME OF PRACTICAL
1	Write a program in python to check a number whether it is prime or not.
2	Write a program to check a number whether it is palindrome or not.
3	Write a program to display ASCII code of a character and vice versa.
4	Write a function SwapNumbers( ) to swap two numbers and display the numbers before swapping and after swapping.
5	Write a program to find the sum of all elements of a list using recursion.
6	Write a program to calculate the factorial of an integer using recursion.
7	Write a program to print Fibonacci series using recursion.
8	Write a recursive python program to test if a string is palindrome or not.
9	Write a program to generate random numbers between 1 to 6 and check whether a user won a lottery or not.
10	Write a program to count the number of vowels present in a text file.
11	Write a program to write those lines which have the character 'p' from one text file to another text file.
12	Write a program to count number of words in a file.
13	Write a python program to write student data in a binary file.
14	Write a python program to read student data from a binary file..
15	Write a python program to modify/update student data in a binary file.
16	Write a python program to delete student data from a binary file.
17	Write a python program to search a student record in a binary file.
18	Write a program to perform read and write operation with .csv file.
19	Write a program to create a library in python and import it in a program.

20	Write a program for linear search.
21	Write a program for bubble sort.
22	Write a menu based program to perform the operation on stack in python.
23	Write a menu based program to perform the operation on queue in python.
	SQL Queries :
24	Queries using Create database, Show databases, USE, Create table, Show Tables, Describe, Rename, Alter, Select, From, Where, Insert, Update commands.
25	Queries using DISTINCT, BETWEEN, IN, LIKE, IS NULL, ORDER BY, GROUP BY, HAVING.
26	Queries for Aggregate functions- SUM( ), AVG( ), MIN( ), MAX( ), COUNT( ).
27	Write a program to connect Python with MySQL using database connectivity and perform the following operations on data in database: Fetch, Update and delete the data.

ART INTEGRATED ACTIVITY

Make a PowerPoint presentation on the following topics:

GROUP	GROUP MEMBERS	TOPIC
Group-I	KrishAttri, PrajvalKour	Computer Network and its Types.
Group-II	KrishNath, SaniaChoudhary	Mobile Telecommunication Technologies
Group-III	Surabhi	Wired and Wireless Transmission Media

Note: *Each group member has to prepare his/her own PowerPoint presentation.*

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PHYSICAL EDUCATION (048)

Revise and complete the notes of the following chapters:

1. Management of Sporting Events
2. Children and Women in Sports
3. Yoga as Preventive measure for Lifestyle Disease

Note: ***Frame at least 10 MCQ'S from each above-mentioned chapter and write them in your notebook.***

PRACTICAL WORK

Write the following practical in record file:
1. Lifestyle Disease: Procedure for asanas, benefits & contraindication of any two asanas for each lifestyle disease. (As briefed in the class)

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NCC (076)

Revise all the chapters done so far and complete your notes.

1. National Integration
2. Drill
3. Weapon Training
4. Armed Forces
5. Map – Reading

Do the following in your NCC notebook:

1. Cut and paste or draw all the ten Standard Obstacle Courses in your NCC notebook, explain each of them. [Unit -8 Common Subject - Adventure and Obstacle Training (same as you did in class 11)
2. Write types of Pollution, Effect of different types of Pollution, Measures to control the different types of Pollution, in your NCC notebook. (From unit-9)
3. Explain waste management and types of Waste. (From unit-9)

ART INTEGRATED ACTIVITY

Make a pdf of the following chapters as per your roll numbers.

a) Weapon Training (1-2)

b) Drill (3-4)

c) Map Reading (5,6 ,7,8)

d) Personality Development (9,10,11)

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ACCOUNTANCY (055)

- Revise all the chapters has done so far and complete your notes.
- Do 10 numericals (from the exercise) of each of the following chapters, in your note book.Chapters:
    1. Issue and forfeiture of shares.
    2. Issue of Debentures.
    3. Every student has to compulsorily undertake project on the following topics:
        - Ratio analysis
        - Cash flow statement.

    Tata Motors (1-14)
    Hindustan unilever Ltd (15-29)

Detailed Guidelines:

- Students need to cover the company profile, assessment of financial statements and specific report analysis so that they are able to:
- Study the proper use of different tools of "Financial statements analysis" Accounting Ratios and cash flow statement.
- Create comparative and common size statement with relevant data.

The format of Project work:

- Statement of the Problem/Name of the Project objectives
- Period of study
- Tools of Analysis used
- Processing and Tabulation of data
- Diagrammatic/Graphic presentation, pie-charts, bar charts and graphs.
- Derivations, interpretation and conclusion.
- Assumptions (if any)

Note:

- *The project must be made on the assignments sheets.*
- *It must not be less than 20 pages.*
- *Use of pictures is mandatory.*

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BUSINESS STUDIES (054)

- **Do at least 20 case studies each of ch-1 to ch-4 in the note-books.**
- **Revise Ch-1,2 and 3 for UT-1**

PROJECT WORK

1. Project on Henry Fayol's Principles of Management with reference to V-Mart, where all observation tools are clearly documented. E.g. worksheets, questionnaire, interviews, organizational chart etc. 2. Project on Marketing Event Planning considering the steps in planning process, where all observation tools are clearly documented. E.g. worksheets, questionnaire, Interviews, organizational chart etc.	Principles of Management (Roll no.1 to 08) Planning (Roll no.09 onwards)

*** Project to be made on assignment sheets. Make use of pictures also.**

ART INTEGRATED ACTIVITY

What is the economic and social impact of changes in the celebrations of festivals business in India (special comparison-Gujarat and J&K) Make a PPT using data, graphs and other relevant things.

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ECONOMICS (030)

- Revise the whole syllabus completed till 31 May 2023.
  - Unit-1 National income and related Aggregates.
  - Unit-5 Indian economy on the eve of independence.
  - Unit 2 Money and banking
  - Unit 3 Government budget
- Complete your notebook.

PROJECT WORK

Every student has to compulsorily undertake one project work. Following topics for project work are allotted to you according to your roll nos.

S.No.	Name of Project Topic	Roll No.
1	Organic Farming –Back to Nature	1-2
2	G-20 : Inclusive and Action Oriented	3-4
3	Cashless Economy	5-6
4	New Education Policy (NEP) 2020: A Promise for a new Education System	7-8
5	Environment Crisis	9-10
6	Comparative Study of Economies	11-12
7	Silk Route- Revival of the past	13-14
8	Alternative Fuel- Types and importance	15-16
9	Trends of Budgetary Condition of India	17-18
10	Live Stock backbone of Indian economy	19-20
11	Amrit Kaal : Empowered and Inclusive Economy	21-22
13	Basmati cultivation and climate change	23-24

ART INTEGRATED ACTIVITY

A short informative visual presentation (video of 3-5 minutes) on any of the ECONOMIC problems related to you area. The presentation should include-Explaining the selected problem briefly. Solution to the problem. How the solution can be implemented?

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POLITICAL SCIENCE (028)

- Learn and revise the following chapters.
  1. End of bipolarity.
  2. New centers of power.
  3. Contemporary South Asia
  4. Challenges of Nation building
  5. Era of one party dominance
  6. Politics of planned development.

- Complete your notebooks.
- Every student has to compulsorily undertake one project work. Following Topics for project work are allotted to you according to your roll no's:

TOPICS	ROLL NO
Partition of India-Theory behind it and its legacy	01-05
India -Pakistan relations	06-10
United Nations with focus on India's candidature in Security Council.	11-15
Globalization in the 21st century	16-20
India's relations with China	21-25
Emergency – A blot on Indian Democracy	26-29

NOTE: Students are directed to undertake only the allotted project work as per their roll no's.

ART INTEGRATED ACTIVITY

A short informative visual presentation (video of 3-5 minutes) on any of the political issues and program related to you area. The presentation should include-Explaining the selected problem briefly. Solution to the problem. How the solution can be implemented?

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GEOGRAPHY (029)

Revise the following chapters:

BOOK 1 (Fundamentals of Human Geography)

1. Human Geography Nature and Scope
2. The World Population Distribution, Density and Growth
3. Population Composition
4. Human Development

BOOK 2 (India People and Economy)

1. Population : Distribution, Density, Growth and Composition
2. Migration : Types, Causes and Consequences
3. Human Development

MAP WORK

Do practice map work of the chapters (both India and World)

1. State with highest level of urbanization and lowest level of urbanization
2. One state with highest level of HDI & One lowest level of HDI
3. State with higher level of population density & one state with lowest level of population density (2011) and largest country of each continent

PRACTICAL WORK

Do first two chapters of practical work.

1. Data – its source and compilation
2. Data processing

ART INTEGRATED ACTIVITY

- Make a PPT of 10-15 slides on Human Geography.
- Make a brochure on World population Distribution, Density & Growth
- Make a poster on Migration.

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HISTORY (027)

Revise the following chapters:

1: Bricks, Beads and Bones
2: Kings, Farmers and Towns
3: Kingship, Caste and Class

Frame twenty five MCQ's from each of the following chapters and write it on your notebooks.

1. Bricks, Beads and Bones
2. Kings, Farmers and Towns
3. Kingship, Caste and Class

MAP WORK

On an outline map of India locate the following:

Do revision of above themes mentioned with map work.

1. Bricks, Beads and Bones
2. Kings, Farmers and Towns
3. Kingship, Caste and Class

PROJECT WORK

Suggestive Topics for practical:-

1. The Indus valley Civilization-archeological excavations and new perspectives
2. The History and Legacy of Mauryan Empire
3. Mahabharata – The great epic of India.
4. BhudhaCharita
5. A Comprehensive History of Jainism
6. Bhakti Movement- Multiple interpretations and commentaries.
7. "The Mystical Dimensions of Sufism
8. Global legacy of Gandhian ideas
9. The Architectural Culture of the Vijayanagar Empire
10. Life of women in the Mughal rural society
11. Comparative Analysis of the Land Revenue Systems introduced by the Britishers in India
12. The Revolt of 1857- Causes; Planning & Coordination; Leadership, Vision of Unity
13. The Philosophy of Guru Nanak Dev
14. The History and Culture of the Vedic period
15. The Vision of Kabir
16. An insight into the Indian Constitution
17. Comparative study of Stupas and Pillar edicts
18. Comparative study of Mughal and Vijayanagar architecture.

Points to be included in project:

1. Choose a Title/Topic
2. Need of the Study, Objective of the Study 3. Hypothesis
4. Content -Timeline, Maps, Mind maps, Pictures, etc. (Organization of Material/Data Present Material/Data)
5. Analysing the Material/Data for Conclusion
6. Draw the Relevant Conclusion
7. Bibliography

ART INTEGRATED ACTIVITY

- Make a PPT of 10-15 slides on Bricks, Beads and Bones.
- Make a brochure on Kings, Farmers and Towns.
- Make a poster on Kingship, Caste and Class.

INFORMATICS PRACTICES (027)

Instructions regarding IP Practical File.

1) Purchase Informatics Practices Practical File (Sangam).
2) Write all the following programs in the file in the same sequence.
3) You have to write the code on the ruled sheet and the output on the plain sheet of the file.
4) Don't write two programs on the same sheet.
5) Use blue pen to write the code and pencil to write the output.
6) You have to also perform the practical and make a pdf of the executed code as well as output.

S. No.	NAME OF PRACTICAL
1	Create a pandas series from a dictionary of values and an ndarray.
2	Given a Series, print all the elements that are above the 75th percentile.
3	Create a Data Frame quarterly sales where each row contains the item category, item name, and expenditure. Group the rows by the category, and display total expenditure.
4	Create a dataframe based one commerce data and generate descriptive statistics (mean, median, mode, quartile, and variance).
5	Create a data frame for examination result and display row labels, column labels data types of each column and the dimensions.
6	Filter out rows based on different criteria such as duplicate rows.
7	Find the sum of each column, or find the column with the lowest mean.
8	Locate the 3 largest values in a data frame.
9	Subtract the mean of a row from each element of the row in a Data Frame.
10	Replace all negative values in a data frame with a 0.
11	Replace all missing values in a data frame with a 999.
12	Importing and exporting data between pandas and CSV file
13	Importing and exporting data between pandas and MySQL database.
14	Given the school result data, analyze the performance of the students on different parameters, e.g subject wise or class wise.
15	For the Data frames created above, analyze and plot appropriate charts with title and legend.
16	Take data of your interest from an open source (e.g. data.gov.in), aggregate and summarize it. Then plot it using different plotting functions of the Matplotlib.
	SQL Queries :
17	Create a student table with the student id, name, and marks as attributes where the student id is the primary key.
18	Insert the details of a new student in the above table.
19	Delete the details of a particular student in the above table.
20	Use the select command to get the details of the students with marks more than 80.
21	Create a new table (order ID, customer Name, and order Date) by joining two tables (order ID, customer ID, and order Date) and (customer ID, customername, contactname, country).
22	Create a foreign key in one of the two tables mentioned above.
23	Find the min, max, sum, and average of the marks in a student marks table.
24	Find the total number of customers from each country in the table (customer ID, customer Name, country) using group by.

25	Create a new table (name, date of birth) by joining two tables (student id, name) and (student id, date of birth).
26	Write a SQL query to order the (student ID, marks) table in descending order of the marks.

ART INTEGRATED ACTIVITY

Make a PowerPoint presentation on the following topics:

GROUP	GROUP MEMBERS	TOPIC
Group-I	Jatinpreet, Nishkarsh & Shivanshu	Computer Network and its Types.
Group-II	Vraj & Rishab	Computer Topologies and its Types.

Note: *Each group member has to prepare his/her own PowerPoint presentation*

PSYCHOLOGY (037)

- PROJECT WORK: Prepare a Case profile of a client suffering from any Psychological Disorder with the standardized format.
- Prepare question bank of the completed chapters.
- Read Case based questions related to the concepts.
- Prepare your Notebook.
- Read concepts daily.
- Dear Children, Take Care, enjoy your holidays and study regularly.

FINE ARTS (049)

Compositions on:

1. Gond Art
2. Bengal Art
3. Pencil Art
4. Nature study
5. Object drawing
6. Revise unit 1

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**********STAY HOME STAY SAFE **********