ARMY PUBLIC SCHOOL JAMMU CANTT
HOLIDAYS HOMEWORK-XI (2024-25)

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ENGLISH (301)

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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 a speech on the topic of Road Rage in 120-150 words to be given at the morning assembly of your school.
2. Write a debate **in favour of** or **against** "Nuclear family is the best form of family structure." (120-150) 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. Draft posters on
(a) Self Defence   (b) Safe Driving   (c) Blood Donation   (d) Save Water
2. Draft advertisements on the following topics.
   (a) You want to sell off your car, since you have decided to buy a new car. Write an advertisement in not more than 50 words giving necessary details.
   (b) You have a four BHK flat in Bandra, Mumbai which you want to let out on rent. Write an advertisement in not more than 50 words giving necessary details.

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PHYSICS (042)
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1. A thin wire has a length of 21.7 cm and radius 0.46 mm. Calculate the volume of the wire to correct significant figures.
2. The frequency (f) of a stretched string depends upon the tension F (dimensions of force), length l of the string and the mass per unit length λ of string. Derive the formula for frequency.
3. The energy E of an oscillating body in simple harmonic motion depends on its mass m, frequency n and amplitude a. Using the method of dimensional analysis find the relation between E, m, n and a.
4. A ball is thrown upwards from the top of a tower 40 m high with a velocity of 10 m/s. Find the time when it strikes the ground. Take g = 10 m/s2.
5. A ball is thrown upwards from the ground with an initial speed of u. The ball is at a height of 80 m at two times, the time interval being 6 s. Find u. Take g = 10 m/s2.
6. A particle is projected vertically upwards with velocity 40 m/s. Find the displacement and distance travelled by the particle in (a) 2 s (b) 4 s (c) 6 s. Take g = 10m/s2.
7. A particle starts with an initial velocity 2.5 m/s along the positive x-direction and it accelerates uniformly at the rate 0.50 m/s2.
   (a) Find the distance travelled by it in the first two seconds
   (b) How much time does it take to reach the velocity 7.5 m/s?
   (c) How much distance will it cover in reaching the velocity 7.5 m/s?
8. Displacement-time equation of a particle moving along x-axis is x = 20 + t3 - 12t (SI units)
   (a) Find, position and velocity of particle at time t = 0.
   (b) State whether the motion is uniformly accelerated or not.
   (c) Find position of particle when velocity of particle is zero.
9. The motion of a particle along a straight line is described by the function x = (2t - 3) 2, where x is in metres and t is in seconds. Find
   (a) The position, velocity and acceleration at t = 2 s.
   (b) The velocity of the particle at origin.
10. A ball is projected vertically upward with a speed of 50 m/s. Find (a) the maximum height, (b) the time to reach the maximum height, (c) the speed at half the maximum height. Take g = 10 ms-2.
11. A clock has its second hand 2.0 cm long. Find the average speed and modulus of average velocity of the tip of the second hand in 15 s.
12. A particle is moving in a circle of radius 4 cm with constant speed of 1 cm/s. Find
(a) Time period of the particle and (b) Average speed, average velocity and average acceleration in a time interval from t = 0 to t = T/4.Here, T is the time period of the particle. Give only their magnitudes.
13. Complete your practical and activity file.
14. Prepare a model on the following
S.No Roll Numbers Suggested Topics
1. 1-5   HOOKE'S LAW
2. 6-10   THE COMPARISON OF THERMAL CONDUCTIVITY FOR DIFFERENT METALS
3. 11-15 BLACKBODY THERMAL EMISSION
4. 16-20 SOLENOID ENGINE
5. 21-25 TESLA COIL SLAYER EXCITER
6. 26-30 WIRELESS ELECTRICITY
7. 31-35 HYDRAULICS
15. Prepare an investigatory project (Suggested Investigatory Projects)
1. To Study and Determine the Density of the Solids
2. To Study of the Parallelogram Law of the Vectors
3. To Study of Pascal's Law and its Applications
4. To Study of the Zeroth Law of the Thermodynamic

5. To Study and Investigate the Motion of the Pendulum
6. Study of the Equilibrium of the Concurrent Forces
7. To Study and Construct a Circuit of the Clap Switch
8. To Study the Hooke's Law, Stress-Strain Relationship
9. To Study of the Transformation Energy from the Deep
10. To Study the Principle of Superposition of the Waves

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CHEMISTRY (043)
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Read textbook material for chapters
1. Mole concept
2. Concentration terms
3. Structure of atom
4. Periodic classification of elements.

THEORY ASSIGNMENT

Solve NCERT exercises of the following chapters:
1. Some basic concept of chemistry
2. Structure of atom

Write electronic configuration of elements from atomic no. 1 to 80.

ART INTEGRATED PROJECT
1. Make a powerpoint presentation on any one of the following topics
   a. Quantum numbers
   b. Law of chemical combination
2. Draw Structure of PCl_5 , H_2O , CH_4 and NH_3

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

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MATHEMATICS (041)
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CHAPTER: 1. SETS

1. Let $A = \{x: x^2 - 5x + 6 = 0\}$, $B = \{2,4\}$, $C = \{4,5\}$. Write $A \times (B \cap C)$.

2. If $A = \{1,2,3,4,5\}$, then write the number of proper subsets of A.

3. For any sets A and B show that $P(A \cap B) = P(A) \cap P(B)$.

4. Let A and B be sets; if $A \cap X = B \cap X = \emptyset$ and $A \cup X = B \cup X$ for some set X. Show that A=B.

CASE STUDY

5. In a library, 25 students read physics, chemistry and mathematics books. It was found that 15 students read mathematics, 12 students read physics while 11 students read chemistry. 5 students read both mathematics and chemistry, 9 students read physics and mathematics. 4 students read physics and chemistry and 3 students read all three subject books.

Based on the above information, answer the following questions.

(i) The number of students who reading only chemistry is
   (a) 5   (b) 4   (c) 2   (d) 1

(ii) The number of students who reading only mathematics is
   (a) 4   (b) 3   (c) 5   (d) 11

(iii) The number of students who reading only one of the subjects is
   (a) 5   (b) 8   (c) 11   (d) 6

(iv) The number of students who reading none of the subject is
   (a) 2   (b) 4   (c) 3   (d) 5

<p style="text-align:center;">**CHAPTER: 2. RELATIONS AND FUNCTIONS**</p>

1. Let $f = \{(1,1),(2,3),(0,-1),(-1,-3)\}$ be a linear function from Z to Z, find f(x).

2. Find the domain and range of $\sqrt{16 - x^2}$.

3. If A={2,4,6,9}, B={4,6,18,27,54} and a relation R from A to B is defined by R={(a,b): a∈A, b∈B, a is a factor of b and a < b} then find R in roster form.

CHAPTER: 3. TRIGONOMETRIC FUNCTIONS

1. Solve the equation $(\sqrt{3} - 1)cosx + (\sqrt{3} + 1)sinx = 2$.

2. Prove that: $\cos 5x = 16\cos^5 x - 20\cos^3 x + 5cosx$.

3. Solve for x: $2\cos^2 x + 3\sin x = 0$.

ART INTEGRATED PROJECT (DO IT ON A SEPARATE FILE)

1. Prove laws of Sets using beads or pulses.
2. Draw graphs of any three functions.
3. Draw trigonometric table.

ACTIVITY WORK: (DO THESE ACTIVITIES ON MATHS LAB MANUAL)

1. To find the number of subsets of a given set and verify that if a set has n number of elements, then the total number of subsets is 2^n.

2. To verify that for two sets A and B, n (A×B) = pq and the total number of relations from A to B is 2^{pq}, where n(A)= p and n(B)=q.

3. To distinguish between a relation and a function.

4. To construct a Pascal's triangle and to write binomial expansion for a given positive exponent.

NOTE :

1. *MAINTAIN YOUR NOTEBOOK.*
2. *REVISE FOLLOWING CHAPTERS DURING SUMMER BREAK*
A) *SETS*
B) *RELATIONS AND FUNCTIONS*
C) *TRIGONOMETRIC FUNCTIONS*
D) *COMPLEX NUMBERS*
E) *LINEAR INEQUALITIES.*

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BIOLOGY (044)

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THEORY BASED QUESTIONS

1. Practice 20 MCQs and 10 Assertion and reasoning from chapter 2 and 3.

PRACTICAL WORK

1. To study the following and writing in the practical notebook. – cycas, bacteria, pine, earthworm, bird, fish, any water plant, turtle, snakes, starfish, leech, round worm.
2. To prepare the slides of monocot stem and root and dicot stem and root.
3. Make a short video of biodiversity of the places you have visited during break.

PROJECT WORK

1. Make a herbarium of 10 plants in your notebook.

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COMPUTER SCIENCE (083)

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Revise the following chapters:
1. Computer System Organization
2. Data Representation and Boolean Algebra
3. Getting started with Python
4. Python Programming Fundamentals

WRITTEN WORK

Complete the assignment worksheet in your CS notebook. You can access Assignment worksheet via the following link:

https://docs.google.com/document/d/1R_65VM-hnHExcMO5T4567js_Ijp5yz6S/edit?usp=drive_link&ouid=105058476295570285814&rtpof=true&sd=true

ART INTEGRATED ACTIVITY

Make a PowerPoint presentation on the following topics(Minimum 10 slides):

GROUP	GROUP MEMBERS	TOPIC
Group-I	Khwaish Choudhary	Input Device and its Types
Group-II	Avni	Output Device and its Types
Group-III	Bhumika	Software and its Types

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

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INFORMATICS PRACTICES (065)

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Revise the following chapters:
1. Computer system
2. Getting started with Python
3. Python Programming Fundamentals

WRITTEN WORK

Complete the assignment worksheet in your IP notebook. You can access Assignment worksheet via the following link:
https://docs.google.com/document/d/1ItorzffDKC1EbYySXEYfRz2cMcyMfslq/edit?usp=drive_link&ouid=105058476295570285814&rtpof=true&sd=true

ART INTEGRATED ACTIVITY

Make a PowerPoint presentation on the following topics(Minimum 10 slides):

GROUP	GROUP MEMBERS	TOPIC
Group-I	Lovepreet and Anjali Manhas	Input Device and its Types
Group-II	Harshit & Manpreet Kour	Output Device and its Types
Group-III	Deepika	Software and its Types

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

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PHYSICAL EDUCATION (048)
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Revise and complete the notes of the following chapters:

1. Changing trends and career in PE
2. Olympism
3. Yoga and lifestyle

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

PRACTICAL WORK

Make a Record File that shall include:

1. Labelled Diagram of Athletic track with specifications, history, and types of events, Rules, Terminologies and skills used in athletics.

2. Physical fitness test administration.

3. Labelled Diagram of Field and Equipment, History, Rules, Terminologies and Skills of any Game of your Choice out of the list given below:

   a) Volleyball

   b) Basketball

   c) Football

   d) Handball

   e) Hockey

   f) Kho Kho

   g) Kabaddi

   h) Cricket

   i) Bocce

4. Procedure for Asanas, Benefits & Contraindication for any five Asanas for each Lifestyle disease studied in the chapter "Yoga and lifestyle".

5. Procedure for administering Senior Citizen Fitness Test for 5 elderly family members.

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NCC (076)
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Revise all the chapters done so far and complete your notes.
1. NCC as an organization.
2. Armed Forces

Do the following in your NCC notebook:
1. Write types of Pollution, Effect of different types of Pollution, Measures to control the different types of Pollution, in your NCC notebook.

ART INTEGRATED ACTIVITY

Make a PPT of the following topic.
1. Role of NCC cadets in national building.
2. Benefits and drawbacks of Agni Veer Scheme

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ACCOUNTANCY (055)
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Revise all the chapters done so far and complete your notes.

1. **Do 10 numerical (from the exercise) of each of the following chapters, in your note book.**
   1. Issue and forfeiture of shares.
   2. Issue of Debentures and Redemption of Debentures.
   3. Financial statements of company
   4. Tools for Financial analysis.
   5. Ratio analysis.

2. **Every student has to compulsorily undertake project on the following topics:**
   1. Ratio analysis
   2. Cash flow statement.

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)

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Revise chapters 1 to 5 and complete your notes.

1. Do at least 10 case studies each of chapter 1 to 5 in your notebooks.

PROJECT WORK

Make a project report on any one of the following topics:

    Principles of Management
            Or
    Marketing Management
            Or
    Stock Exchange

Note:

  ❖ *The project to be made on assignment sheets.*
  ❖ *Use of pictures is mandatory.*
  ❖ *It must not be less than 20 to 25pages.*

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ECONOMICS (030)

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Revise the following units for UT-1 and complete your notebook.

1. Introduction to micro economics
2. Introduction to statistics
3. Collection of Data

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.

XI-C

Sr.No	TOPICS	ROLL NO

1	Production Possibility Curve	1-10
2	Census of India	11-20
3	Human Development Index	21-30

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XI-D
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Sr.No	TOPICS	ROLL NO
1	Production Possibility Curve	1-10
2	Census of India	11-20
3	Human Development Index	21-30
4	Lives of Rural People	31-40
5	Agriculture in R.S Pura	41 and above

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POLITICAL SCIENCE (028)

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Revise the following units for UT-1 and complete your notebook.

1. Constitution: Why and How?

2. Rights in the Indian Constitution.

3. Election and Representation

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PROJECT WORK
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Every student has to compulsorily undertake one project work. Following Topics for project work are allotted to you according to your roll nos:

TOPICS	ROLL NO
Rights in the Indian Constitution with reference to citizenship amendment act	01-10
India's federal system	11-20
Local government with reference to Panchayati Raj act of 1992	21-31
India as a secular country	32-42

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GEOGRAPHY (029)

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- ➢ **Frame an article about the geography of J and k highlighting-**
  a. Its longitudinal and latitudinal extent.
  b. Climate c. Mountain ranges lying there
  d. Important rivers .Draw/paste suitable picture and paste it in your
     geography notebook

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HISTORY (027)

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Revise the following chapters:
1. Writing and city life
2. An Empire across three continents

Frame twenty-five MCQ's from each of the following chapters and write it on your notebooks.
1. Writing and city life
2. An Empire across three continents

MAP WORK

Do map work according to themes given below:

1. Writing and city life
2. An Empire across three continents

PROJECT WORK

GROUP	ROLL NOs	TOPICS FOR PROJECT
1	1 to 10	The Mesopotamian Civilization

2	11 to 20	The Roman Empire
3	21 to 30	The Mesopotamian Civilization
4	31 to 42	The Roman Empire

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PSYCHOLOGY (037)
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Revise the following chapters and complete your notes
1.What is Psychology
2. Methods of enquiry in psychology
3. Human Development

Do the following activities:

- **Frame 15 MCQ's from each chapter and prepare question bank.**
- **Prepare 2 case-based questions from each of these chapters.**

Project work

- **Prepare a project on any of the ideas project ideas from your text book.**

Note:

❖ *The project to be made on assignment sheets.*
❖ *Use of pictures is mandatory.*
❖ *It must not be less than 20 to 25pages.*

Art integration:

- **Solve NCERT activities till chapter 3 and write it on assignment sheets, make it colourful.**
- **Research about the recent updates on all the different stages of human development and prepare presentation on it.**

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FINE ARTS (048)

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Revise Unit 1

Practical

1. Nature drawing
2. Picture composition
3. Pencil drawing
4. Any folk art

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SANSKRIT ()

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गृहकार्यम् कक्षा-एकादशी

➢ चतुर्दश माहेश्वरसूत्राणि लिखत्

➢ ४२ प्रत्यहाराः लिखत्

➢ सन्धिकार्यम्   (एक चार्ट बनाएं)

➢ हल् सन्धेः उदाहरणानि लिखत्

➢ जम्मूकाश्मीरराज्ययस्य सांस्कृतिकविवर्णं लिखत्

➢ महाभारतस्य संक्षिप्तपरिचयं लिखत्