Mukand

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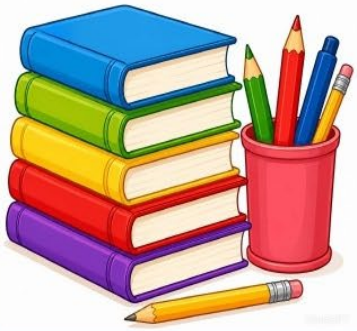
Holidays HOMEWORK

SESSION (2026-27)

CLASS XI

Learn, Explore, Grow
Make your holidays meaningful!



Dear Parents

As we welcome the much-awaited summer break, we are delighted to share the Holiday Homework for the Academic Session 2026–27.

Summer vacation offers children a wonderful opportunity to explore, reflect, and learn beyond the boundaries of the classroom. Keeping this spirit in mind, the assignments have been carefully planned to ignite curiosity, inspire creativity, and foster empathy among our learners.

In accordance with the vision of the National Education Policy (NEP) 2020, these activities emphasize experiential, value-based, and project-oriented learning. They are designed to help students relate academic concepts to everyday life experiences. Each task encourages learners to discover their interests, strengthen essential life skills, and develop a broader understanding of the world around them.

With your constant support and encouragement, we are confident that this summer break will become a meaningful journey of learning, growth, and joyful experiences for every child.

Principal

HOLIDAY HOMEWORK

ENGROSSING ENGLISH

"If Shakespeare Had Instagram" Gallery Project
Literature in the Digital Age – With an Eco-Friendly Twist
General Instructions
Each student will prepare ONE unique creative piece based on the roll number allotted topic.

- **Roll Nos. 1–4**

"Shakespeare's Insta Reels"
Create a handmade flipbook reel series showing:
Hamlet overthinking life decisions
Juliet posting dramatic status updates
Macbeth chasing "power influencers"
Use old carton strips or discarded calendar sheets.

- **Roll Nos. 5-8**

Khushwant Singh's "Cryptic Story Wall"
Create a hanging story panel using:Newspaper scraps,Tea-stained paper,Typewriter-style handwritten notes
Include:
Short sarcastic one-liners
"Seen by…" sections
Literary humour

- **Roll Nos. 9-12**

Nani Palkhivala's "Save Earth Campaign Feed"
Design a cloth scroll social campaign.
Include:
Eco appeals
Constitution-inspired slogans
Handmade hashtags
Earth sketches using natural colours
Use old dupatta cloth/jute/cotton fabric.

- **Roll Nos. 13-16**

King Tut and Fake News Factory
Create a 3D rumour tunnel from waste boxes.
Show:
Fake archaeological headlines
Misleading “viral posts”

Truth vs propaganda
Add QR-code style handmade patterns.

- **Roll Nos. 17-20**

Captain Gordon Cook’s Adventure Broadcasts
Create a travel explorer dashboard using:Rope, Brown paper,Maps from old notebooks,Bottle caps as compass markers
Include:
“Live location updates”
Storm alerts
Discovery posts

- **Roll Nos. 21-24**

WhatsApp Chats Between Literary Characters of any of the chapters read.Ch1-3 from Hornbill
Create foldable chat screens using recycled paper/cardboard
Use emojis drawn from seeds/pulses.

- **Roll Nos. 25-28**

Meme Museum of Literature
Create a wall of literary memes using:
Waste cardboard
Old comic cuttings
Handwritten captions
Themes:
Procrastinating poets
Dramatic heroes
Villains as influencers
No copied internet memes allowed.

- **Roll Nos. 29-32**

YouTube Thumbnail Gallery
Design exaggerated handmade thumbnails for:

1. The Portrait of a Lady

2. We’re Not Afraid to Die… if We Can All Be Together
3. Discovering Tut: The Saga Continues

Hints: “10 Mistakes Khushwant Singh made

“Ancient Egypt EXPOSED!”
Use bold sketching and recycled glossy packaging.

- **Roll Nos. 33-36**

Twitter/X Debate Assembly
Create mini paper tweet cards tied with thread.
Topic: “Should tragic heroes be cancelled?”
Characters must “tweet” opinions in under 30 words.
Use handmade stamps and eco-inks.

- **Roll Nos. 37-40**

Eco-Influencer Literary Characters
Imagine literary figures as sustainability influencers.
Examples:
Juliet promoting balcony gardening
Prospero teaching upcycling
The Last Lesson teacher saving paper
Presentation idea: Mini seed-paper profile cards.

- **Roll Nos. 41-44**

“If Ancient Writers Had Podcasts”
Create a podcast booth model from waste materials.(using any of these i.eShoe boxes/cartons,Cardboard,Newspaper rolls,Cloth scraps,Jute/thread,Ice-cream sticks,Bottle caps,Paper cups,Seed paper)

Include:
Episode titles
Guest appearances
Listener comments
Sponsorship spoofs

- **Roll Nos. 45 onwards**

“Cancelled Characters Courtroom”
Make a recycled courtroom file using brown paper bags or reused envelopes
Characters defend themselves against:
Toxic behaviour
Miscommunication
Greed

Include audience comments as “live reactions.”
Students must use:
Waste material
Recycled paper/cardboard
Cloth scraps
Old newspapers/magazines
Dry leaves, twigs, jute, fabric, seed paper, packaging waste etc.
Avoid thermocol, glitter plastic, foam sheets, excessive printouts, and ready-made decorative items.

Students may create:
Scroll boards,Foldable “chat windows”,Matchbox stories,Recycled newspaper pop-ups,Cloth banners
Seed-paper message cards,Mini hanging installations,Paper-bag journals,Bottle-cap meme walls,Jute-frame timelines
Scrapbook-style “digital feeds”
No actual posting on Instagram/WhatsApp/X/YouTube is required.

PASSIONATE PHYSICS

Theme: The Quantum age

Prepare a project report of atleast 5-7 pages and make a working model on the same topic.

XI A

- **Roll no 1,8,15,22,29,36:** Security systems (Quantum cryptography)
- **Roll no 2,9,16,23,30,37**: Evolution of gaming Technology
- **Roll no 3,10,17,24,31,38:** Power Generation through time
- **Roll no 4,11,18,25,32 :**Evolution of Communication Technology**(** LED signal transmission,Voice communication demo)
- **Roll no 5,12,19,26,33,40:**Robotics Through Time **(**Robotic arm , Line-following robot)
- **Roll no 6,13,20,27,34 :**Future Smart City
- **Roll no 7,14,21,28,35 :** Evolution of Farming Technology

XI B

- **Roll no 1,8,15,22,29,36:** Street Lighting System Through Time
- **Roll no 2,9,16,23,30,37**:Waste to Energy Technology
- **Roll no 3,10,17,24,31,38:**Future Renewable Energy Park
- **Roll no 4,11,18,25,32,39:**Smart Home Energy System
- **Roll no 5,12,19,26,33,40:**Kitchen Cooking Tech
- **Roll no 6,13,20,27,34,41**:Home Cleaning Tech
- **Roll no 7,14,21,28,35 :**Evolution of Cooling systems (from past to future)

XI C

- **Roll no 1,8,15,22,29,36:** Evolution of Computing: Classical to Quantum Computers
- **Roll no 2,9,16,23,30,37**:Evolution of Clocks
- **Roll no 3,10,17,24,31,38:**Evolution of Cameras
- **Roll no 4,11,18,25,32,39:**Evolution of Roads and Traffic
- **Roll no 5,12,19,26,33,40:**Water Conservation Smart System
- **Roll no 6,13,20,27,34 :** Piezoelectric Energy Harvesting Floor
- **Roll no 7,14,21,28,35:** Quantum classrooms

Note- Bridging the past, understanding the present, and shaping the future through our science model.

CHARISMATIC CHEMISTRY

THEME – THE QUANTUM CHEMISTRY FOR GREENER FUTURE

Prepare a project report of at least 5-7 pages and make a working model on the same topic.

- Roll no 1 to 4 : Catalysis and renewable energy
- Roll no 4 to 8 : CO2 valorisation and reduction
- Roll no 9 to 12 : Green hydrogen production
- Roll no 13 to 16 : Sustainable batteries like Li ion and Na ion batteries
- Roll no 18 to 22 : Benign by design (Lead free) solar cells
- Roll no 23 to 28 : Quantum designed Nanomaterial water filter
- Roll no 29 to 32 : Advanced carbon capture
- Roll no 33 to 36 : Toxicity and Pollutant degradation
- Roll no 37 to 40 : Biodegradable polymer design
- Roll no 40 to 44 : A I for green Chemistry
- Roll no 45 onwards : Solvent-free and aqueous chemistry

Note-

Bridging the past, understanding the present, and shaping the future through our science model.

BUBBLY BIOLOGY

- **Roll no.1 to3**

1.Brain-Computer Interface
Activity: Make a futuristic PPT on connecting the human brain with computers using biotechnology. Explain how brain signals are used to control machines and devices. Include future possibilities in medicine, communication, and artificial intelligence.

- **Roll no.4 to 6**

2.Ancient Medicine to Nanomedicine
Activity: Prepare a comparative study of traditional medicine systems and modern nanomedicine. Explain how medicines evolved from herbal remedies to nanoparticle-based drugs. Mention future advancements in targeted drug delivery systems.

- **Roll no. 7 to 9**

3. Environmental Biotechnology
Activity: Make a project file on bioremediation and the use of microbes in pollution control. Explain how biotechnology helps clean soil, water, and air. Include future eco-friendly innovations for environmental protection.

- **Roll no.10 to12**

4.Evolution of Blood Testing
Activity: Prepare a chart presentation showing the development of blood testing methods. Explain how diagnostic technology improved from basic tests to biosensors and rapid testing kits. Mention future smart diagnostic devices and AI-based health monitoring.

- **Roll no 13 to 15**

5. Smart Greenhouse FarmingActivity: Make a working model of a smart greenhouse using sensors or simple automation techniques. Explain how modern farming technologies help in water conservation, temperature control, and increased crop production.

- **Roll no. 16 to17**

6. Biodegradable Plastics from Biological Sources
Activity: Create a chart/model explaining the production of bioplastics from plants, algae, or microorganisms. Mention their importance in reducing pollution and future eco-friendly innovations.

- **Roll no. 18 to 19**

7. Evolution of Artificial Intelligence in Biology
Activity: Prepare a PPT or project report on the role of Artificial Intelligence in healthcare, genetics, drug discovery, and disease prediction. Include future possibilities of AI in biological research.

- **Roll no20 to 21**

8. Wearable Health Monitoring Devices
Activity: Design a creative model or poster on wearable biological devices such as smartwatches, glucose monitors, and fitness trackers. Explain how biotechnology and digital health innovations help in monitoring human health.

- **Roll no. 22to24**

9.**Biomimicry Innovations**

Activity: Create a scrapbook showing inventions inspired by nature such as bird-inspired airplanes or lotus-effect paints. Explain how scientists study plants and animals to develop new technologies. Include future innovations based on biological designs for sustainable living.

- **Roll no 25 to 26**

10. **Development of Prosthetics**
Activity: Design a model or PPT explaining the evolution from wooden limbs to smart AI prosthetics. Describe how technology improved mobility and comfort for disabled individuals. Mention future developments like brain-controlled artificial limbs.

- **Roll no 27 to 28**

11.**Conservation Biotechnology**

Activity: Write a research report on preserving endangered species using modern biological techniques. Explain methods like tissue culture, cloning, and gene banking. Include future possibilities of restoring biodiversity through biotechnology.

- **Roll no.29 to 30**

12.Activity:From Herbal Medicine to Biotechnology Drugs

Activity: Prepare a comparative file on medicinal plants and genetically engineered medicines. Explain how traditional herbal remedies inspired modern pharmaceutical research. Mention future advancements in personalized biotechnology-based medicines.

- **Roll no 31 to 32**

13. Hormonal Control and Artificial Endocrine Devices

Activity: Prepare a working chart/model showingEndocrine glands and hormone functions. Include modern innovations like insulin pumps, hormone therapy, and future smart hormone-regulating devices.

- **Roll no. 33 to 34**

14. Smart Biosensors
Activity: Create a working model or report on biosensors used in glucose monitoring and wearable health devices. Explain how biosensors detect biological changes in the human body. Mention future applications in smart healthcare and disease prediction.

- **Roll no 35 to 36**

15.**Pandemic Management T**hrough Biology
Activity: Write an analytical report on how biological innovations helped manage pandemics. Explain the role of vaccines, testing kits, and biotechnology during disease outbreaks. Include future preparedness strategies using AI and genetic research.
Roll no 37 to38

16.**Cryopreservation Technology**
Activity: Prepare a project file on freezing cells, tissues, and organs for long-term storage. Explain the scientific principles and medical uses of cryopreservation. Mention future applications in organ

transplantation and fertility preservation.

AWESOME ACCOUNTANCY

1) Do Analytical study of all Assets in your family and prepare a record of those.

2) Note down the business transactions for 15 days of any business organization mentioned below and prepare an accounting equation for the same.
a) Grocery shop
b) Cosmetic shop
c) Optician
d) Bakery shop
e) Sweet shop
f) Or any form of business organization.
3) Prepare a report on study of non operating expenses of proprietary concern with examples and documents.
4) Do visit a nearest Bank and collect banking instruments like cheque, Demand Draft, Pass Book, withdrawl and pay in slips etc.

EXCITING ECONOMICS

1) Search out 10 examples of primary data and 10 examples of secondary data.
2) Prepare a questionnaire to know about the monthly income and expenditure of XI class students living in a hostel.
3) Make a list of questions as asked in Census 2026 by government of India and cover 10 nearby houses of your locality and prepare a report.
4) Search about NSSO and write a short note on it.
5) Write five examples for data which is statistics and which is not statistics.
6) Explore atleast ten unknown Eco-friendly products manufactured in India and prepare a project file exhibiting the following points:
a) Name of the company
b) Name of the products
c) Material used for manufacturing
d) Effects on environment
e) Government support and grants
f) Capital Invested
g) Product line/ and logo, if any
h) Financial statements and SWOT (strengths , weakness, opportunities and threats) analysis

BLISSFUL BUSINESS STUDIES

Do the following case studies:

1) Ratan enterprises decided to have meeting of the key employees of different departments in

the organization. The main motive is to tell the employees to keep the target of 20% increase in the sales as the main objective when they work through out the year. The meeting is full of ideas about the employees and processes involved. Various plans are made to harness the potentials of employees and streamline the processes. However with the passage of the few days the external business environment checks the capability of the organization to adapt to the situations. At the end of the year the company successfully comes out with flying colors.

a) By quoting the lines, identify the various characteristics of management highlighted here.

2) Design a chart depicting the 'Effectiveness and Efficiency' as the outcome of management.

3)Draft a case study which highlights the points of importance of Principles of management.

4) This year a meeting is organized by Ramesh Mittal, CEO of the company. In this meeting , Ramesh granted some funds for the benefits of the families of the employees. The employees on the other hand never resist any change or put excessive demands. The general environment in the company is very supportive to the employees. The employees turnover ratio is very low.

a) Which concept of the management is discussed here?

b) Which principle of management is followed here ?

5) Write a detailed note on Managerial Response to changes in business environment. Use example to support your explanation.

6) XYZ Company is manufacturing garments. The manager wants to increase the profits by purchasing new high speed machines or increasing the sale price or using waste material in manufacturing stuffed toys. He decided that using waste material to increase the profits is the best solution for him.

a) Identify the concept of management involved.

b) Mention the steps involved in above process by quoting the lines from the question.

c) To complete the process of concept identified in (a), what two next steps the manager has to take. Explain.

PROJECTS MODELS

1. Spindle to Modern Textile Industry. (Roll no 1 to 5)
2. Bullock Cart to Automobile Industry. (Roll no 6 to 10)
3. Leaf writing to Paper Industry. (Roll no 11 to 15)
4. Pottery to Crockery Industry. (Roll no 15 to 20)
5. Herbs to Pharmaceutical Industry. (Roll no 21 to 25)
6. Silbutta to Mixy. (Roll no 26 to 30)
7. Any Industries depicting SDG's Goals (Green Industries) (Roll no 31 to 37)

SIMPLE PSYCHOLOGY

Section-A

It's based on the NCERT textbook, here's a plan that emphasises experiential learning. This method engages you in activities and reflections that help you understand the psychological concepts through experience. Here's a step-by-step guide

1. Understanding Psychology

Chapter: What is Psychology?

Activity: Personal Reflection Journal

Task: Make a daily dairy in which you note down your thoughts, emotions, and behaviors. Reflect on why you might be feeling or behaving in certain ways.

Objective: Understand the scope of psychology and how it applies to everyday life.

****Questions for Reflection****:

1. How do your feelings influence your behavior?
2. Can you identify any patterns in your thoughts and actions?

2. Methods of Enquiry in Psychology

Chapter: Methods of Enquiry in Psychology

Activity: Conduct a Simple Survey

Task: Create a short survey on a topic of interest (e.g., study habits, stress levels). Administer it to at least 10 people and analyze the results.

Objective: Learn about survey methods and basic data analysis.

****Questions for Reflection****:

1. What were the common trends in your data?
2. How reliable do you think your survey is?

Section- B

Make models on any one topic :

Theme : " Mental Health across ages"

1.Timeline tunnel model

2. Stress source bar graph model

3. Brain evolution model

4. Community vs Isolation sphere

5. Kid's mental age comparison

6. The bridge model: stigma then vs now

7. Coping toolbox across lifespan

8. Brain stress model

9. Door model: opening up about mental health

10. Speedometer for Burnout

Assignment

1. Define psychology.
2. Differentiate between structuralism and functionalism in psychology.
3. Being a psychologist how would you define experiences in psychology?
4. Explain the linkage of economics , political science , and sociology with psychology.
5. Define behaviorism and discuss its key concepts.
6. Explain the role of cognitive processes in understanding behavior.
7. What do you mean by objectivity ?
8. Discuss the various aspects of observation method.
9. What are the goals of scientific enquiry?
10. Describe the various steps involved in conducting scientific enquiry.
11. A researcher is studying relationship between the speed of cycling and the presence of people. Formulate a relevant hypothesis and identity the independent and dependent variables .

12. Explain the characteristics of a standardised test.

Assertion-Reason

Question 1

Assertion (A): Psychology is a discipline that employs scientific methods to study behavior and mental processes.

Reason (R):Psychologists rely solely on introspection to gather data about human behavior.

a) Both (A) and (R) are true, and (R) is the correct explanation of (A).

b) Both (A) and (R) are true, but (R) is not the correct explanation of (A).

c) (A) is true, but (R) is false.

d) (A) is false, but (R) is true.

Question 2

Assertion (A): Psychology is considered a social science.

Reason (R): Psychology only studies individual behavior in isolation.

a) Both (A) and (R) are true, and (R) is the correct explanation of (A).

b) Both (A) and (R) are true, but (R) is not the correct explanation of (A).

c) (A) is true, but (R) is false.

d) (A) is false, but (R) is true.

Question 3

Assertion (A): Psychology aims to understand and predict behavior.

Reason (R): One of the goals of psychology is to improve the quality of life through behavioral interventions.

a) Both (A) and (R) are true, and (R) is the correct explanation of (A).

b) Both (A) and (R) are true, but (R) is not the correct explanation of (A).

c) (A) is true, but (R) is false.

d) (A) is false, but (R) is true.

Question 4

Assertion (A): Psychologists use experiments to determine cause-and-effect relationships.

Reason (R):Experimental research in psychology involves manipulating variables to observe their effects on behavior.

a) Both (A) and (R) are true, and (R) is the correct explanation of (A).

b) Both (A) and (R) are true, but (R) is not the correct explanation of (A).

c) (A) is true, but (R) is false.

d) (A) is false, but (R) is true.

Question 5
Assertion (A):Cognitive psychology focuses on internal mental processes.
Reason (R):Cognitive psychology studies how people perceive, think, and solve problems.
a) Both (A) and (R) are true, and (R) is the correct explanation of (A).
b) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
c) (A) is true, but (R) is false.
d) (A) is false, but (R) is true.
Question 6
Assertion (A):Case studies provide detailed information about an individual.
Reason (R): Case studies use standardized tests and structured interviews to collect data.

a) Both (A) and (R) are true, and (R) is the correct explanation of (A).
b) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
c) (A) is true, but (R) is false.
d) (A) is false, but (R) is true.

Question 7
Assertion (A):Correlational research helps in establishing causal relationships between variables.
Reason (R):Correlational research measures the degree of association between two or more variables.

a) Both (A) and (R) are true, and (R) is the correct explanation of (A).
b) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
c) (A) is true, but (R) is false.
d) (A) is false, but (R) is true.

Question 8
Assertion (A):Surveys are a common method of collecting data in psychological research.
Reason (R):Surveys allow researchers to gather data from a large number of respondents quickly and efficiently.

a) Both (A) and (R) are true, and (R) is the correct explanation of (A).
b) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
c) (A) is true, but (R) is false.
d) (A) is false, but (R) is tru
Question 9
Assertion (A):Experiments are designed to determine cause-and-effect relationships.
Reason (R): In an experiment, the independent variable is manipulated while controlling other variables to observe its effect on the dependent variable.
a) Both (A) and (R) are true, and (R) is the correct explanation of (A).
b) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
c) (A) is true, but (R) is false.
d) (A) is false, but (R) is true.

Question 10

Assertion (A):Naturalistic observation involves observing behavior in a controlled laboratory setting.

Reason (R):Naturalistic observation aims to study behavior in its natural environment without any manipulation or control by the researcher.

a) Both (A) and (R) are true, and (R) is the correct explanation of (A).

b) Both (A) and (R) are true, but (R) is not the correct explanation of (A).

c) (A) is true, but (R) is false.

d) (A) is false, but (R) is true.

HOLISTIC PHYSICAL EDUCATION

Logo of yoga in the form of poster

2- Design yoga poses by using leaf

3- Make a model shows human respiratory system.

4- Make a model shows human circulatory system .

5- Find the body mass index of your family members by applying the formula.

6- Make cards showing different types of bones injuries

Practical:

1. Make a model of Volleyball court with net, antina and complete dimension.
   - (Roll no: 1-5 of each class)
2. Make a model of Football ground with players and complete dimension.
   - (Roll no: 6-10 of each class)
3. Make a model of surya namaskar.
   - (Roll no: 11-15 of each class)
4. Make a model of Badminton court with players and complete dimension.
   - (Roll no: 16-20 of each class)
5. Make a model of Basketball court with players and complete dimension.
   - (Roll no: 21-25 of each class)
6. Make a model of Cricket ground with players and complete dimension.
   (Rest of students)

MAJESTIC MATHEMATICS

Applied Mathematics(241)

Guidelines for project written work:

1.The project is to be done on A4 sheets or punched sheets (hand written)

2.The project must be of 20 pages and the sheets should be of same size.

3.Use colorful diagram and images related to the topic.

Topics for the project:

1.Use of Venn diagram in solving practical problems

2. Fibonacci sequence: Its' history and presence in nature

3.Testing the validity of mathematical statements and framing truth tables

4.Investigating graphs of functions for their properties
5.Each day newspaper tells us about the maximum temperature, minimum Temperature, and humidity. Collect the data for a period of 30 days and represent it graphically. Compare it with the data available for the same time period for the Previous year.
6.To Analysis career graph of a cricketer (batting average for a batsman and bowling Average for a bowler). Conclude the best year of his career.
7. Vehicle registration data – correlating with pollution and the number of accidents

Mathematics(041)

Guidelines for project written work:
1.The project is to be done on A4 sheets or punched sheets (hand written)
2.The project must be of 20 pages and the sheets should be of same size.
3.Use colorful diagram and images related to the topic.
Topics for the project:

- Roll no (1-5) : Applications of Sets in daily life.
- Roll no (6-10) : Mathematical analysis of Functions in real life .
- Roll no (11-15):Role of Coordinate geometry in Navigation systems.
- Rollno(16-20): Trigonometry and it's applications in Architecture and Navigation.
- Roll no (21-25): Probability in everyday decision making.
- Roll no (26-30): Statistics and data interpretation of school survey.
- Roll no (31-35): Explore applications of Conic sections in radio communication and satellite dishes
- Roll no (36-41): Golden ratio and Fibonacci sequence ,Explore their occurrence and role in architecture.