

MPVM GANGA GURUKULAM
HOLIDAY HOMEWORK SESSION 2026-27
CLASS XI

SUBJECT	HOMEWORK
<u>English</u>	<p>Instructions- The holiday homework and Art Integrated Project must be done on a file paper.</p> <ol style="list-style-type: none"> You are fitness trainer in a Health Club. Design a poster in not more than 50 words to emphasize the importance of exercise in maintaining mental and physical fitness. You are Prem/ Priya. As Mukul / Mahima of Max Public School , write a speech to be delivered in school assembly highlighting the importance of cleanliness suggesting that the state of cleanliness reflects the character of its citizens.(150-200 words) Write a paragraph about the career you are considering. Explain why you are choosing that career path and how you plan to accomplish your goal. <p>Art Integrated Project Collect information about the uniqueness of cultural heritage of the states Arunachal and Meghalaya. Paste /Draw relevant pictures and write about them.</p>
<u>Physics</u>	<ol style="list-style-type: none"> Light year is unit of: (a) time (b) distance (c) velocity (d) intensity of light Which pairs do have equal dimension ? (a) Force and momentum (b) force and pressure (c) Energy and Torque (d) None of these. The number of significant figure in 6.0023 : (a) 3 (b) 4 (c) 5 (d) A suitable unit for gravitational constant is (a) Newton metre kg⁻¹ (b) Newton metre² kg⁻¹ (c) Newton metre² kg⁻¹ (d) None of these The dimension of physical quantity X in equation $\text{force} = \frac{X}{Y + \text{Density}}$ is given by (a) [M¹L⁴T⁻²] (b) [M²L²T⁻¹] (c) [M²L²T⁻²] (d) [M¹L⁻²T⁻¹] <p>Directions: These questions consist of two statements, each printed as Assertion and Reason. While answering these questions, you are required to choose any one of the following four responses.</p> <ol style="list-style-type: none"> If both Assertion and Reason are correct and the Reason is a correct explanation of the Assertion. If both Assertion and Reason are correct but Reason is not a correct explanation of the Assertion. If the Assertion is correct but Reason is incorrect. If both the Assertion and Reason are incorrect. <p>6. Assertion: A.U. is much bigger than A^o . Reason: A.U. stands for astronomical unit and A^o stands for angstrom.</p> <p>7. Assertion: The dimensions of a/b in the equation $P = a - t^2 / bx$, where P is pressure, x is distance and t is time, are MT⁻² . Reason: By Principle of homogeneity the dimensions of LHS is equal to dimensions of RHS.</p> <ol style="list-style-type: none"> Give the name of two physical quantities whose units are same . Write dimension of a,b and c in given equation $\text{force} = at^2 + b/t + c$ where t represent time .

10. Find the dimension of α and β in given expression Force = $\frac{\alpha}{\text{density} + \beta}$
11. Find the dimensions of $a \times b$ in the relation $P = b - x/a$; where P is power , x is distance and t time
12. Check the correctness of given equation $\tan\theta = v^2 /rg$, where v , r and g express velocity, radius and gravitational acceleration.
13. A calorie is a unit of heat or energy and it equals about 4.2 J where 1J = 1 kg m² s⁻² . Suppose we employ a system of units in which the unit of mass equals α kg, the unit of length equals β m, the unit of time is γ s. Show that a calorie has a magnitude 4.2 $\alpha^{-1} \beta^{-2} \gamma^2$ in terms of the new units.
14. If the velocity of light (c), the constant of gravitation (G) and plank's constant (h) be choosen as the fundamental units, find the dimension of mass new system
15. The equation of state for real gas given by

$$\left(P + \frac{a}{V^2} \right) (V - b) = RT$$

Determine the dimension formula of the constant a and b .

16. (a) Mention some application of dimensional analysis
 (b)How can physical quantity be convert from one system of unit to another?
 (c) Convert one newton into dyne .
17. Dimensional analysis of the equation (velocity)^x = (Density)^{-3/2}x(Pressure difference)^{3/2} . Find the value of x.

18. Check the correctness of given equation :

(a) $\tan\theta = v^2/rg$, where v , r and g express velocity, radius and gravitational acceleration.

(b) $T = 2\pi \sqrt{\frac{GM}{R^3}}$

Where T,G,M and R express time period ,gravitational constant ,mass of earth and radius of earth.

19. (a)Write merits and demerits of dimension.
 (b)Derive an expression for time period (T) of a simple pendulum which may depend upon:
 (i) mass of bob (m) , (ii) length of pendulum (l) and (iii) acceleration due to gravity (g) .

20. The centripetal force (F) acting on a body may depend upon mass of body (m), radius Of the circle (r) and frequency of revolution (v). Derive the formula dimensionally.

Mathematics

Exercises 1.1,Ex.1.2,Ex.1.3,Ex.1.4,Ex.1.5, Ex.1.6 and MISCELLANEOUS EXERCISEand Exercise 2.1,2.2,2.3 From NCERT BOOK
 Do complete it on separate Register.

Chemistry

1. Prepare a chart to show the importance of chemistry, also show the deferent discipline of chemistry.
2. Prepare a list of 5 soaps and detergents with their concentration terms written in labels and explain the concentration terms used.
3. Explain about chemicals found in Mohenjodaro and Harappans culture.
4. Write the work of -Kautilya's Arthashastra, Rigveda, ancient Vedic literature, Sushruta Samhita, Charaka Samhita and Rasopanishada in chemistry.
5. What was the contribution of Ngarjuna, Chakrapani and Varāhmihir's Brihat Samhita in chemistry?

	<p>6. A welding fuel gas contains carbon and hydrogen only. Burning a small sample of it in oxygen gives 3.38 g carbon dioxide, 0.690 g of water and no other products. A volume of 10.0 L (measured at STP) of this welding gas is found to weigh 11.6 g. Calculate (i) empirical formula, (ii) molar mass of the gas, and (iii) molecular formula.</p> <p>7. In a reaction $A + B_2 \longrightarrow AB_2$. Identify the limiting reagent, if any, in the following reaction mixtures.</p> <p>(i) 300 atoms of A + 200 molecules of B</p> <p>(ii) 2 mol A + 3 mol B</p> <p>(iii) 100 atoms of A + 100 molecules of B</p> <p>(iv) 5 mol A + 2.5 mol B</p> <p>(v) 2.5 mol A + 5 mol B</p>
<p><u>Biology</u></p>	<p>DO THIS ASSIGNMENT IN A4 SHEET</p> <ol style="list-style-type: none"> 1. Explain such characteristics and justify whether it is defining property or not. 2. What do you mean by taxonomic hierarchy? Write its features. 3. Define taxonomy and systematics. What is the scope of systematics as of today? 4. What forms the basis of modern taxonomy? Explain three domain classifications. 5. Define a taxon. Explain each taxon with examples in hierarchy. 6. Describe binomial nomenclature with an example. 7. Explain the guidelines/principles for nomenclature. 8. Describe how classification systems have undergone several changes over a period of time along with scientists. 9. Explain the criteria considered for five kingdom system of classification. 10. Describe different types of classification of bacteria with diagrams. 11. Write characteristics of kingdom : <ol style="list-style-type: none"> (a) Monera with examples. (b) Protista and its classification. (c) Fungi and its classes. Mention the criteria for classifying into classes? (d) Lichens 12. What are the three steps involved in sexual reproduction of fungi? 13. Write short note (comparative) viruses, viroids and prions. 14. Draw diagrams of: <ol style="list-style-type: none"> (a) Euglena (b) Paramecium (c) Amoeba (d) Bacteriophage 15. Are viruses living or non-living? Give reasons for each. 16. Write history of viruses and characteristics. 17. Project discussed in the class.
<p><u>Business Studies</u></p>	<p>Do this in your Business Studies notebook. Keep answers neat and use diagrams where asked.</p> <p>Chapter 1: Nature and Purpose of Business</p> <p>A. Short Answer – 3 marks each</p> <ol style="list-style-type: none"> 1. Define business. How is it different from profession and employment? 2. Explain any 3 characteristics of business activity. 3. What is economic activity? Give 2 examples other than those in NCERT. 4. List any 4 objectives of business and explain “survival” as an objective. <p>B. Long Answer – 5 marks</p> <ol style="list-style-type: none"> 5. Explain the classification of business activities with examples. Draw a flow chart for the same. 6. “Business is an economic activity, but all economic activities are not business.”

	<p>Explain with 3 points.</p> <p>7. Discuss the role of profit in business. Is profit the sole objective of business? Give reasons.</p> <p><u>C. Practical/Application</u></p> <p>8. Case Study: Riya started a home-based bakery during lockdown. She bakes cakes on order, takes risks, and reinvests profit to buy better equipment.</p> <p>a. Identify the type of economic activity.</p> <p>b. List 3 characteristics of business shown in this case.</p> <p>c. What risks is she facing?</p> <p>9. Visit a small shop near your home. Note down:</p> <p>* Name of business, type of goods/services, form of ownership if possible.</p> <p>* Write 5 lines on how it creates value for customers.</p> <p>Chapter 2: Forms of Business Organisations</p> <p><u>A. Short Answer – 3 marks each</u></p> <p>1. Define sole proprietorship. State any 2 merits and 2 demerits.</p> <p>2. What is a partnership deed? Why is it important?</p> <p>3. Differentiate between partnership and company on the basis of liability and continuity.</p> <p>4. What is a cooperative society? Give 2 examples.</p> <p><u>B. Long Answer – 5 marks</u></p> <p>5. Explain any 5 features of a Joint Hindu Family business.</p> <p>6. “A company is an artificial person created by law.” Explain the features of a company that justify this statement.</p> <p>7. Compare Sole Proprietorship, Partnership, and Company on the basis of:</p> <p>* Formation, Liability, Capital, Management, Continuity</p> <p><u>C. Practical/Application</u></p> <p>8. Diagram Task: Draw a chart showing classification of business organisations.</p> <p>9. Research Task: Pick one startup you know – Swiggy, Zomato, or a local shop. Find out its form of organisation. Write 5 lines on why you think that form suits it.</p> <p>10. Role Play Prep: You will do a 2-min role play in class as a sole proprietor, partner, and company director explaining one advantage of your form. Prepare 3 points for your role</p> <p>General Instructions</p> <p>1. Use headings and sub-headings. Underline key terms.</p> <p>2. Draw diagrams/flowcharts with a pencil and ruler.</p> <p>3. For research/case study, you can use the internet, but write in your own words.</p> <p>4. This homework carries 10 marks for internal assessment.</p>
<p>ACCOUNTANCY</p>	<p>Do in your Accountancy notebook. Show all workings. Use proper formats.</p> <p>Chapter 1-3: Basics & Theory Base</p> <p><u>A. Theory</u></p> <p>1. Define accounting. State any 3 objectives.</p> <p>2. Distinguish between Book-keeping and Accounting.</p> <p>3. Explain ‘Business Entity Concept’ and ‘Money Measurement Concept’ with examples.</p> <p>4. What is ‘Conservatism Concept’? Why is it important?</p> <p><u>B. Practical</u></p> <p>5. Classify the following into Asset, Liability, Capital, Expense, Income, Rent Paid, Cash in Hand, Loan from Bank, Sales, Furniture, Outstanding Salary, Interest Received.</p> <p>Chapter 4: Accounting Equation</p> <p><u>A. Concept</u></p> <p>6. State the Accounting Equation. What does it show?</p> <p>7. Explain how every transaction affects the accounting equation.</p> <p><u>B. Problems – 4 marks each</u></p> <p>8. Show the effect of the following transactions on the accounting equation:</p> <p>a. Started business with cash ₹1,00,000.</p> <p>b. Purchased furniture for cash ₹20,000.</p>

- c. Purchased goods on credit ₹15,000.
 d. Sold goods for cash ₹8,000 costing ₹5,000.
 e. Paid rent ₹1,000.
 f. Withdrew cash for personal use ₹2,000.
 g. Paid to creditors ₹10,000.
9. If Assets = ₹80,000 and Liabilities = ₹25,000, find Capital.
 If Capital = ₹60,000 and Liabilities = ₹40,000, find Assets.
 If Assets = ₹1,20,000 and Capital = ₹90,000, find Liabilities.

10. Comprehensive Problem:

- Prepare the accounting equation from the following:
- a. Commenced business with cash ₹50,000 and goods ₹20,000.
 b. Purchased furniture ₹10,000 on credit.
 c. Paid salary ₹2,000 and rent ₹1,000.
 d. Sold goods costing ₹8,000 for ₹12,000 cash.
 e. Withdrew goods for personal use ₹1,000.
- Show that Assets = Liabilities + Capital at the end.

Chapter 5: Recording of Transactions – Journal

A. Theory

11. What is a Journal? Why is it called the Book of Original Entry?
 12. State the Golden Rules of Accounting.

B. Journal Entries – 5 marks each

13. Journalize in the books of M/s Gupta & Co.:

- Started business with cash ₹1,50,000 and bank ₹50,000.
- Purchased goods for cash ₹30,000 and on credit ₹20,000 from Ramesh.
- Sold goods for cash ₹25,000 and on credit ₹15,000 to Suresh.
- Paid rent ₹3,000 and salary ₹4,000.
- Received cash from Suresh ₹14,500 in full settlement of ₹15,000.
- Paid to Ramesh ₹19,500 in full settlement of ₹20,000.
- Withdrew goods for personal use ₹2,000.
- Paid electricity bill ₹1,200.
- Depreciation on furniture ₹1,500.
- Interest received ₹800.

14. Journalize in the books of Priya:

- April 1: Commenced business with ₹1,00,000 cash and ₹30,000 goods.
 April 3: Purchased furniture for cash ₹8,000.
 April 5: Purchased goods on credit from Aman ₹15,000.
 April 8: Sold goods to Neha for cash ₹10,000.
 April 10: Paid wages ₹700 and carriage ₹300.
 April 12: Received cash from Neha ₹9,700 in full settlement.
 April 15: Paid to Aman ₹14,700 in full settlement.
 April 20: Withdrew cash for personal use ₹2,000.

Submission Checklist

- All theory answers in own words
- Accounting equations balanced
- Journal entries with dates, narrations, and 'To/By'
- Neat handwriting and ruled margins

POLITICAL SCIENCE

- Prepare a Project on different theories of state e.g. Divine Origin of state , Social Contract Theory, Evolutionary Theories of State (Any one of them), Liberty, Equality, Social justice.(any one of the following)
OR
 Constitution of India, Election Commission, legislature, Executive Judiciary.(any one of the following)
- Prepare a project on Arunanchal Pradesh or Meghalaya (Food, culture, political

	<p>history.</p>
HISTORY	<ol style="list-style-type: none"> 1. Prepare a project on the following topics allotted. The project should be of 500- 600 words. <ol style="list-style-type: none"> A) Ancient history in depth : Mesopotamia. B) Greek philosophy and city states. C) Contribution of Roman civilization D) Aspects of development south American states / central American states. E) Piecing together the past of Genghis khan. F) History of Aborigines -America / Australia. G) Facets of modernization - China /Japan / Korea. 2. Prepare a project on Arunanchal Pradesh or Meghalaya (Food, culture, political history).
HINDI	<p>हिंदी भाषा के क्रमिक विकास का वर्णन कीजिए। हिंदी भाषा के विकास में योगदान देने वाले किन्हीं तीन साहित्यकारों के योगदान को दर्शाते हुए उनका सचित्र वर्णन कीजिए।</p>
PHYSICAL EDUCATION	<ol style="list-style-type: none"> 1. Draw and label the court measurement of volleyball, basketball, kho-kho and chess in separate file. 2. Draw one of game from following in chart paper with proper label, dimension and measurement. 3. Mention 10 yoga with procedure, benefits and contraindication and also label the diagram of yogic asanas in the file.
COMPUTER SCIENCE	<p>Creative Python Mini Project (Compulsory) . Students will create ONE small Python project based on real-life situations. Choose Any ONE:</p> <ol style="list-style-type: none"> 1. Smart Daily Planner Features: Add tasks Mark tasks completed Show pending work Motivational quote of the day Creative twist: Add emojis, colored output, or personalized messages. 2. Mood-Based Music/Activity Suggestion Program asks: "How are you feeling today?" Then suggests: songs activities quotes exercises Concepts used: if-else lists functions 3. Eco-Friendly Calculator Program calculates: electricity usage water wastage plastic usage Then gives: "Tips to save the environment." Integrates computer science with social awareness.
IP	<p>Q1. Write a Python program to input cost of goods (cgos), revenue generated, operating costs (oc) and prints Gross Profit, net profit and net profit percentage.</p>

[Hint: net profit = revenue – cgos – oc]

Q2. Write a program in Python to input temperatures of 7 days (Monday, Tuesday, and Sunday) and print the average temperature of the week.

WEB APPLICATION

Question. write the HTML code for the following web page as seen on the internet explorer. The details are given below: note the following points while generating the web page.

- (A) title is oswaal publications.
- (B) text color is red and visited link colour is pink.
- (C) maximum size will be use for heading oswaal publications".
- (D) size of text is 7 and the title "computer, history and maths" will be in ordered list.
- (E) there are two horizontal lines in the web page.
- (F) their colour is black and thickness is 10 pixels. They are not shaded.
- (G) the list items are hyperlinks and the linked files are:

S. No.	Hyperlink text	Linked file
1.	Computer	Naqvi.html
2.	History	Saif.html
3.	Maths	Maths.html

Question. write down the HTML code to generate a page in the format and style shown below:

- (A) title of the page is MAHARAJA: home.'
- (B) background colour of the page is YELLOW'.
- (C) link colour of the page should be GREEN' and visited link colour be BLUE'.
- (D) all font face in the page are ARIAL and BLACK except the heading !!MAHARAJA!!, which is in COURIER face and of RED colour.
- (E) pages linked with: Indian dishes: vegetarian dishes as Indian.html internally named VEG non vegetarian dishes as Indian.html internally named NONVEG Continental dishes: vegetarian dishes as continental.html internally named VEG non vegetarian disesascontinental. Html internally named NONVEG
- (F) use ordered and unordered lists, wherever required.
- (G) the horizontal rule before the bottom message of size "5" with NO"HADE attribute. Note: you can assume any other attributes which are not otherwise mentioned above to produce a similar output.

APPLIED MATHS

Exercise 5.1, Ex.5.2, Ex.5.3 and Ex. 5.4 from M.L.AGRAWAL. Do complete it on separate Register.

LEGAL STUDIES

1. Prepare a Project on different theories of state e.g. Divine Origin of state , Social Contract Theory, Evolutionary Theories of State (Any one of them).

Or

2. Critically Examine the Separation of Power Theory (Montesquieu)

Prepare a project on Arunanchal Pradesh or Meghalaya (Food, culture, political history)

ECONOMICS

For XI D

S. N.	Student's Name	PROJECT TOPIC
1	Aadya Ranjan	Concept of Economics and significance of statistics and collection of data
2	Aanandita Singh	Census and sample methods of collection of data and organisation of Data
3	Abhinav Singh Rathore	Consumer Equilibrium - Utility analysis and indifference curve analysis
4	Abhineet Singh	Economics and Economy and Central Problems of an Economy
5	Akhilesh Yadav	Presentation of Data(textual and Tabular Presentation) and Diagrammatic Presentation(Bar Diagrams and Pie Diagrams)
6	Akriti Mishra	Theory of Demand and Price Elasticity Of Demand
7	Anchal Kumari	Frequency Diagrams(Histogram, Polygon and Ogive and Arithmetic Line Graphs or Time series graphs
8	Astha Shri	Production Function and Returns to a Factor and Concept of Cost

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	9	Ayushi	Measures of Central Tendency- Arithmetic mean and Median and Mode
	10	Ayushi Pandit	Concept of Revenue and Producers Equilibrium
	11	Bhanu Pratap Chaurasia	Theory Of Supply and Forms of Market : Perfect Competition
	12	Devesh Yadav	Correlation and Index numbers
	13	Mamata	Market Equilibrium under Perfect Competition and effects of Shifts in Demand and Supply
	14	Nashra Qamar	Consumer Equilibrium - Utility analysis and indifference curve analysis
	15	Prathishtha Singh	Theory of Demand and Price Elasticity Of Demand
	16	Prince Raj	Production Function and Returns to a Factor and Concept of Cost
	17	Rajit Yadav	Concept of Economics and significance of statistics and collection of data
	18	Rudra Pratap Singh	Census and sample methods of collection of data and organisation of Data
	19	Shivani Tripathi	Consumer Equilibrium - Utility analysis and indifference curve analysis
	20	Shubham Yadav	Economics and Economy and Central Problems of an Economy
	21	Trisha Sahu	Presentation of Data(textual and Tabular Presentation) and Diagrammatic Presentation(Bar Diagrams and Pie Diagrams)
	22	Utkarsh Yadav	Theory of Demand and Price Elasticity Of Demand
	23	Vaibhav Kumar Tripathi	Frequency Diagrams(Histogram, Polygon and Ogive and Arithmetic Line Graphs or Time series graphs
			Production Function and Returns to a Factor and Concept of Cost
			For XI C
	S. N.	Student's Name	
	1	Agastya Kumar Mishra	Concept of Economics and significance of statistics and collection of data
	2	Anushka Chaurasia	Census and sample methods of collection of data and organisation of Data
	3	Anushka Yadav	Consumer Equilibrium - Utility analysis and indifference curve analysis
	4	Arpit Maurya	Economics and Economy and Central Problems of an Economy
	5	Arpit Singh	Presentation of Data(textual and Tabular Presentation) and Diagrammatic Presentation(Bar Diagrams and Pie Diagrams)
	6	Bhavya Singh	Theory of Demand and Price Elasticity Of Demand
	7	Deepanshu Patel	Frequency Diagrams(Histogram, Polygon and Ogive and Arithmetic Line Graphs or Time series graphs
	8	Divyanshi Yadav	Production Function and Returns to a Factor and Concept of Cost
	9	HaardikPandey	Measures of Central Tendency- Arithmetic mean and Median and Mode
	10	Jatin Yadav	Concept of Revenue and Producers Equilibrium
	11	Jyotsana	Theory Of Supply and Forms of Market : Perfect

	Kesharwani	Competition
12	Lehar Sonkar	Correlation and Index numbers
13	Manashvi Srivastava	Market Equilibrium under Perfect Competition and effects of Shifts in Demand and Supply
14	Mayank Jaiswal	Economics and Economy and Central Problems of an Economy
15	Mohd Yasir	Theory of Demand and Price Elasticity Of Demand
16	Prachi Jaiswal	Concept of Revenue and Producers Equilibrium
17	Rishika Jaiswal	Presentation of Data(textual and Tabular Presentation) and Diagrammatic Presentation(Bar Diagrams and Pie Diagrams)
18	Samiksha Patel	Production Function and Returns to a Factor and Concept of Cost
19	Satwik Singh	Presentation of Data(textual and Tabular Presentation) and Diagrammatic Presentation(Bar Diagrams and Pie Diagrams)
20	Shardul Yadav	Theory of Demand and Price Elasticity Of Demand
21	Shashwat Singh	Frequency Diagrams(Histogram, Polygon and Ogive and Arithmetic Line Graphs or Time series graphs)
22	Simon Jaiswal	Production Function and Returns to a Factor and Concept of Cost
23	Utkarsh Singh	Measures of Central Tendency- Arithmetic mean and Median and Mode
24	Veer Jaiswal	Concept of Revenue and Producers Equilibrium