



St. Mary's Convent Inter College

32, Thornhill Road, Prayagraj, UP - 211002

Class – 12

Summer Holiday Assignments 2026-27

Subject	Holiday Homework
English	<p>English Paper 1 –</p> <ul style="list-style-type: none">•Complete the project work. Blog Writing and Proposal Writing.•Total English - Solve Specimen Papers 2, 3, 4 and 5.•Revise Statement of Purpose, Report Writing, Article Writing and Book Review. <p>English Paper 2</p> <ol style="list-style-type: none">1. Complete the project work. (Critical Analysis of Telephone Conversation, Comparison of the characters of Charushashi and Sonamani).2. Prepare Macbeth Act 3 Scene 1 and 2.3. Prepare the poem – Tithonus
Hindi	<ol style="list-style-type: none">1. Complete your Hindi Project-2. निबंध,अपठित गद्यांश,मुहावरे, अशुद्ध वाक्य को शुद्ध कीजिए।3. क्या निराश हुआ जाए?(लेखक परिचय,प्रश्न उत्तर)4. उद्यमी नर (कवि परिचय, कविता, प्रश्न उत्तर)5. प्रभा का चरित्र चित्रण6. दासी , तुलसीदास के पद , मुहावरे , अशुद्ध वाक्य को शुद्ध कीजिए (Prepare for first Unit Assessment)
Mathematics	<p>List of Suggested Assignments for Project Work</p> <ol style="list-style-type: none">1. Using a graph, demonstrate a function which is one-one but not onto.2. Using a graph demonstrate a function which is invertible.3. Draw the graph of $\sin^{-1}x$ (or any other inverse trigonometric function), using the graph of $y=\sin x$(or any other relevant trigonometric function). Demonstrate the concept of mirror line (about $y=x$) and find its domain and range.4. Explore the principal value of the function $\sin^{-1}x$ (or any other inverse trigonometric function) using a unit circle.5. Find the derivatives of a determinant of the order of 3×3 and verify the same by other methods.6. Verify the consistency of the system of three linear equations of two variables and verify the same graphically. Give its geometrical interpretation.7. For a dependent system (non-homogeneous) of three linear equations of three variables, identify infinite number of solutions.8. Explain the concepts of increasing and decreasing functions, using geometrical



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- significance of dy/dx . Illustrate with proper examples
9. Explain the geometrical significance of point of inflexion with examples and illustrate it using graphs.
 10. Explain and illustrate (with suitable examples) the concept of local maxima and local minima using graph.
 11. Explain and illustrate (with suitable examples) the concept of absolute maxima and absolute minima using graph.
 12. Explain the conditional probability, the theorem of total probability and the concept of Bayes' theorem with suitable examples.
 13. Explain the types of probability distributions and derive mean and variance of binomial probability distribution for a given function.
 14. Using any suitable data, find the minimum cost by applying the concept of Transportation problem.
 15. Using any suitable data, find the minimum cost and maximum nutritional value by applying the concept of Diet problem.
 16. Using any suitable data, find the Optimum cost in the manufacturing problem by formulating a linear programming problem (LPP).
 17. Demonstrate application of differential equations to solve a given problem (example, population increase or decrease, bacteria count in a culture, etc.).
 18. Using vector algebra, find the area of a parallelogram/triangle. Also, derive the area analytically and verify the same.
 19. Using Vector algebra, prove the formulae of properties of triangles (sine/cosine rule, etc.)
 20. Using Vector algebra, prove the formulae of compound angles,
e.g. $\sin(A+B) = \sin A \cos B + \cos A \sin B$ etc.
 21. Find the image of a line with respect to a given plane.
 22. Find the distance of a point from a given plane measured parallel to a given line.
 23. Find the distance of a point from a line measured parallel to a given plane.
 24. Find the area bounded by a parabola and an oblique line.
 25. Find the area bounded by a circle and an oblique line.
 26. Find the area bounded by an ellipse and an oblique line.
 27. Find the area bounded by a circle and a circle.
 28. Find the area bounded by a parabola and a parabola.
 29. Find the area bounded by a circle and a parabola.
- (Any other pair of curves which are specified in the syllabus may also be taken.)**
1. Analyse - Three methods (proofs) to find the area under the curve.



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	<p>2. Tessellation: Types of tessellations, Geometrical shape of tessellation, Tessellation in nature, man made tessellation, application in real life situation.</p> <p>3. Sacred Geometry and Euclid geometry comparison and different approach (Mathematically)</p> <p>4. Derivation of $e^{\int p dx}$ and its applications.</p> <p>5. Differentiation – instantaneous rate of change of displacement, why not rate of change of one variable with reference to other variable.</p> <p>6. Derivation of determinant.</p> <p>Choose any two topics from the list given above and prepare a well-structured project file on each. Your project should include a clear introduction, relevant content, and a proper conclusion, presented neatly and creatively.</p>
Chemistry	<p>1. Prepare the first term project based on the topic “Biomolecules”</p> <p>a. Vitamins</p> <p>b. Structure of sugars,</p> <p>c. Classification of proteins</p> <p>d. Nucleic acid.</p> <p>2. Write experiments 1 to 8 in the practical record.</p> <p>3. Learn the chapter Haloalkanes and Haloarenes for I unit assessment</p>
Biology	<p>1. Read :</p> <p>Chapter 2: Sexual reproduction in flowering plants.</p> <p>Chapter 3: Human Reproduction</p> <p>Chapter 4: Reproductive Health Problems and strategies.</p> <p>Solve the higher order skill questions.</p> <p>2. Complete the project assigned.</p>



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Accountancy	<p>1. Complete the assignment titled “Financial Statement of Partnership Firms”.</p> <p>2. Attempt all the questions asked in previous 10 years ISC question paper from the following chapters:</p> <ul style="list-style-type: none">• Partnership – Fundamentals.• Valuation of Goodwill.• Admission of a partner.• Retirement or death of a partner.
Economics	<p>1. Prepare the following chapters thoroughly for the First Unit Assessment:- Chapter 2: Demand and Law of Demand Chapter 4: Elasticity of Demand Chapter 5: Supply - Law of Supply and Price Elasticity of Supply Chapter 6: Market Mechanism: Equilibrium Price and Quantity in a Competitive Market</p> <p>2. Complete the following projects :- Project 1- Oligopoly in the Indian market. Project 2- Comparative analysis of lending performance of five Commercial Banks.</p>
Commerce	<p>* Solve the back exercises, including MCQ and case study based questions of Chapters 1, 2, and 4. Also, learn and prepare the topics covered in the class from the given chapters for the unit assessment.</p> <p>* Complete the projects as per the discussion in the class on the following two topics:</p> <ol style="list-style-type: none">1. Banking latest trends2. Marketing mix.
Business Studies	<p>Solve the back exercises including case study based questions of Chapters 1 – 7. Also, learn and prepare the topics covered in the class from the given chapters for the unit assessment.</p>
History	<p>Read the chapters thoroughly and solve the questions based on analysis and understanding. Complete the project work.</p>
Physical Education	<p>Prepare the practical file work with Basketball and Badminton.</p>
Computer Science	<ol style="list-style-type: none">1. Complete the first 10 assignment questions provided for your Project.2. Read the chapters Boolean Algebra, Computer Hardware and Inheritance thoroughly.
Fashion Designing	<ol style="list-style-type: none">1. Complete your project work. <p>Prepare 3 sheets each of vegetable printing, leaf printing, and vegetable-leaf printing.</p> <ul style="list-style-type: none">• Create 1 printed T-shirt.• Complete 16 samples of tie and dye.• Complete 8 samples of macramé work.• Complete 5 samples of weaving. <p>Note: Decorate and complete your practical file. Label all the work properly. Explain all types of weaves in detail.</p>



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	<ul style="list-style-type: none">• Make a newspaper clipping related to fashion or textile. <p>3. Prepare for the upcoming examination.</p>
Legal Studies	<p>1. In the BNS, "Community Service" has been introduced as a form of punishment for petty offenses. Write a 300-word opinion piece on whether this will help reduce prison overcrowding in India. Does this align more with Restorative Justice or Retributive Justice?</p> <p>2. Complete the projects work assigned on both the topics.</p>





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Psychology	<p>1. Complete a project on Attitude The project should include the following topics:</p> <ul style="list-style-type: none">- Title page- Acknowledgement- Index Page- General problem- Specific Problem- Basic Concept- Preliminaries- Materials required- Plan of Work- Instructions <p>2. Prepare a questionnaire to be administered to sample groups for an attitude scale on marriage.</p> <p>3. Complete the answers to the questions given in last year's question paper and sample papers for the above mentioned chapters.</p> <p>4. Read the following chapters from the textbook: Ch. 1.: Intelligence Ch. 2.: Personality Ch. 4.: Stress</p>
Physics	<p>Solve the following problems in your notebook:</p> <ol style="list-style-type: none">1. An object is placed at 40 cm from a concave mirror of focal length 15 cm. If the object is displaced 20 cm towards the mirror, find the displacement of the image.2. Light coming from a point source at a distance of 1m falls on a convex refracting surface of $\mu = 1.5$ and $R = 20$ cm. Calculate the position of the image.3. Calculate the angle of incidence so that a ray of light travelling from glass ($\mu=3/2$) to water ($\mu=4/3$) does not emerge out in water.4. A ray of light is incident at an angle 60° on one face of a 30° prism such that the emergent ray makes an angle 30° with the incident ray. Show that the emergent ray is normal to the surface of the prism. Also find the refractive index of the prism5. The refractive index of a glass prism of angle A is $\cot(A/2)$. Show that the minimum deviation angle is $(180^\circ - 2A)$.6. A compound microscope has lenses of focal lengths 10 mm and 30 mm. an object is placed at a distance of 12 mm from the first lens. Find the magnification power and distance between the lenses if final image is formed at D.7. In a Young's double slit experiment $\lambda= 500$ nm, $d=1.0$ mm and $D = 1.0$ m. Find the minimum distance from the central maxima where the intensity is half of the maximum intensity.



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8. Calculate the resolving power of a microscope when light of 600 nm falls on the objective lens making an angle 30° . Given $\mu = 1$.
9. Find the ratio of intensities in YDSE when two coherent waves have path differences zero and $\lambda/4$.
10. Calculate the dispersive power of a prism by the given data. $\mu_v = 1.5230$, $\mu_r = 1.5145$.
- Practice the ray diagrams of ray optics.





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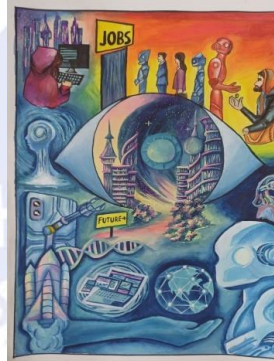
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1. Design and paint an imaginary scene where a women are shown plucking flowers in garden.
 2. Design and paint a poster on 'Technology, to serve humanity' .
 3. Using Typography calligraphy create a full page artwork of an object you like the most from the given image.
- Some examples are given below.

Art



Women plucking flowers



Poster



Typography

