



# RAJA RAMMOHAN ROY ACADEMY

(Cambridge School)

Clement town, Dehradun

## SUMMER ASSIGNMENT AND PROJECT WORK

SESSION 2023-24

CLASS – XII C & D

Subject	Project/ Assignment
Eng. Lang.	<p>Attempt any two of the following topics:</p> <p>a) Write a detailed account of a football match or a cricket match that you played or witnessed. You may write a little about your favourite sports star and how you feel inspired by him or her. Make this description very interesting and add important information related to the event.(500 words)</p> <p>b) Write an article to be published in a local newspaper expressing your concern at increase in waste paper in streets, at homes, schools, offices and on the roads after an election.</p> <p>c) Your class had to conduct a morning assembly .Write an account of how you prepared for it; what your role was and what you learnt from the experience. B.</p> <p>The written assignment must follow the structure given below:</p> <p>Introduction:</p> <p>a) Explanation of the topic that has been framed. b) Reason for choosing the topic. c) Brief explanation of how the candidate intends to interpret the chosen topic.</p> <ul style="list-style-type: none"><li>• Main Body and comprehensive summary of the points made in the main body.</li><li>• Paste relevant pictures and add quotations.</li><li>• Do not copy from internet or any other book.</li><li>• Use any pen except red and green.</li><li>• Use inter-leaf pages and use a hard board file.</li><li>• Sequence of the content:</li></ul> <p>a.Index b.Acknowledgement c.Certificate d.Content e.Conclusion f.Bibliography</p> <p>The file should be covered in Yellow .</p>
Eng. Lit.	<p>Answer any one of the following questions in 500 words :</p> <p>Question 1.A lesson that every ruler whether of an island or a country has to learn is not to trust anyone .Show how this truth is demonstrated in the play 'The Tempest'.</p> <p>Question 2. Hope and joy are the emotions felt too closely by the protagonist in the short story 'Story of an Hour' and 'The Singing Lesson' . With reference to the central characters discuss the theme of despair and joy in the two stories bringing out the similarity and differences in the themes.</p>
Hindi	<p>हिंदी परियोजना कार्य ,2023-2024</p> <p>हिंदी भाषा – सामान्य निर्देश –निम्नलिखित विषय पर समाचार पत्र या पत्रिका में से सचित्र एक निबंध लिखिए जो लगभग 1000 शब्दों में हो ।</p>

	<p>विषय – एक भारत श्रेष्ठ भारत (उत्तराखंड , उत्तर प्रदेश , राजस्थान और केरला चारों में से किसी एक राज्य की वेशभूषा , व्यंजन , भौलोगिक स्थिति , खाद्यपदार्थ (मोटा अनाज , मानचित्र , कला आदि पर विस्तार से वर्णन कीजिये ।)</p> <p>☐ हिंदी साहित्य –</p> <ul style="list-style-type: none"> <li>• गद्य संकलन –</li> </ul> <p>भक्तिन पाठ के आधार पर बताइए की तत्कालीन समाज में स्त्रियों के साथ कैसा व्यवहार होता था ? महादेवी जी का जीवन किस प्रकार का था ? आज समाज में नारियों के साथ कैसा व्यवहार हो रहा है ? हमारे देश के विकास में नारियों का योगदान पर अपने विचार प्रस्तुत कीजिए ।</p> <p>या</p> <p>भारतीय संस्कृति विश्व में महान है । पाठ संस्कृति क्या है के आधार पर अपने विचार प्रस्तुत कीजिए ।</p> <ul style="list-style-type: none"> <li>• काव्य मंजरी –</li> </ul> <p>महादेवी वर्मा का परिचय सचित्र लिखिए । बदल को घिरते देखा है कविता का सचित्र भावार्थ लिखिए ।</p> <ul style="list-style-type: none"> <li>• आषाढ़ का एक दिन –</li> </ul> <p>मोहन राकेश एक युगांतकारी नाटककार हैं अपने विचार लिखिए ।</p> <p>*****</p>
<p><b>Mathematics</b></p>	<p><b>PAPER II – PROJECT WORK – 20 Marks</b> Candidates will be expected to have completed two projects, one from Section A and one from either Section B or Section C. The project work will be assessed by the subject teacher and a Visiting Examiner appointed locally and approved by the Council. Mark allocation for each Project [10 marks]: Overall format 1 mark, Content 4 marks, Findings 2 marks, Viva-voce based on the Project 3 marks Total 10 marks List of suggested assignments for Project Work:</p> <p><b>Section A</b></p> <ol style="list-style-type: none"> <li>1. Using a graph, demonstrate a function which is one-one but not onto.</li> <li>2. Using a graph demonstrate a function which is invertible.</li> <li>3. Draw the graph of <math>y = \sin^{-1} x</math> (or any other inverse trigonometric function), using the graph of <math>y = \sin x</math> (or any other relevant trigonometric function). Demonstrate the concept of mirror line (about <math>y = x</math>) and find its domain and range.</li> <li>4. Explore the principal value of the function <math>\sin^{-1} x</math> (or any other inverse trigonometric function) using a unit circle.</li> <li>5. Find the derivatives of a determinant of the order of <math>3 \times 3</math> and verify the same by other methods.</li> <li>6. Verify the consistency of the system of three linear equations of two variables and verify the same graphically. Give its geometrical interpretation.</li> <li>7. For a dependent system (non-homogeneous) of three linear equations of three variables, identify infinite number of solutions.</li> <li>8. Explain the concepts of increasing and decreasing functions, using geometrical significance of <math>dy/dx</math>. Illustrate with proper examples.</li> <li>9. Explain and illustrate (with suitable examples) the concept of absolute maxima and absolute minima using graph.</li> <li>10. Demonstrate application of differential equations to solve a given problem (example, population increase or decrease, bacteria count in a culture, etc.).</li> <li>11. Explain the conditional probability, the theorem of total probability and the concept of Bayes' theorem with suitable examples.</li> <li>12. Explain the types of probability distributions and derive mean and variance of binomial probability distribution for a given function.</li> </ol>

	<p>Section B</p> <p>13. Using Vector algebra, find the area of a parallelogram/triangle. Also, derive the area analytically and verify the same.</p> <p>14. Using Vector algebra, prove the formulae of properties of triangles (sine/cosine rule, etc.)</p> <p>15. Using Vector algebra, prove the formulae of compound angles, e.g. <math>\sin(A + B) = \sin A \cos B + \sin B \cos A</math>, etc.</p> <p>16. Describe the geometrical interpretation of scalar triple product and for a given data, find the scalar triple product.</p> <p>17. Find the image of a line with respect to a given plane.</p> <p>18. Find the distance of a point from a given plane measured parallel to a given line.</p> <p>19. Find the distance of a point from a line measured parallel to a given plane.</p> <p>20. Find the area bounded by a parabola and an oblique line.</p> <p>21. Find the area bounded by a circle and an oblique line.</p> <p>22. Find the area bounded by an ellipse and an oblique line.</p> <p>23. Find the area bounded by a circle and a circle.</p> <p>24. Find the area bounded by a parabola and a parabola.</p> <p>25. Find the area bounded by a circle and a parabola.</p> <p>Section C</p> <p>26. Draw a rough sketch of Cost (C), Average Cost(AC) and Marginal Cost (MC) Or Revenue (R), Average Revenue (AR) and Marginal Revenue (MR). Give their mathematical interpretation using the concept of increasing - decreasing functions and maxima-minima.</p> <p>27. For a given data, find regression equations by the method of least squares. Also find angles between regression lines.</p> <p>28. Draw the scatter diagram for a given data. Use it to draw the lines of best fit and estimate the value of Y when X is given and vice-versa.</p> <p>29. Using any suitable data, find the minimum cost by applying the concept of Transportation problem.</p> <p>30. Using any suitable data, find the minimum cost and maximum nutritional value by applying the concept of Diet problem.</p> <p>31. Using any suitable data, find the Optimum cost in the manufacturing problem by formulating a linear programming problem (LPP).</p>
<p><b>History</b></p>	<p>Prepare a Project on any one of the following</p> <ol style="list-style-type: none"> <li>1. A case study.</li> <li>2. A field Visit</li> <li>3. A local history</li> <li>4. Book review/Film Review</li> </ol> <p>The project should be in the form of 2000-word essay Structured in the format as discussed in the class.</p>
<p><b>Commerce</b></p>	<p>Prepare a project file with any 2 topics from the suggested list. <b>A list of suggested Projects is given below:</b></p> <ol style="list-style-type: none"> <li>1. Compare marketing strategies adopted by two different companies of the same industry (FMCG / Telecommunication / media / education industry etc.) keeping in mind the following: – Product mix – Price Mix – Place Mix – Promotion Mix</li> <li>2. Collect newspaper/magazine clippings of five cases filed by consumers in the Consumer Court. Find out the rights violated, and the redressal mechanism used. What was the outcome of each case?</li> <li>3. Visit a commercial Bank. Find out the procedure to open a savings account. Find out the details of various Agency &amp; General utility services provided by the bank.</li> </ol>

	<p>4. Compare the interest rates offered by five different commercial banks on fixed deposits under various categories (general and senior citizens) and various time durations. Find out the procedure and formalities for opening a fixed deposit account. What is the procedure for closing the account on maturity and before maturity period?</p> <p>5. Select five different companies across varying industries such as I.T., textiles, FMCG, Health Care, etc., included in the SENSEX. Keeping a hypothetical base money of Rupees One Lakh, invest in the shares of the selected companies. The movement of share prices selected by you should be monitored over a period of one month on a daily basis. A uniform / standard practice of either using the opening price or the closing price on a particular day of the week should be used by all students in the class. At the end of the month, analyse your investment in a spread sheet and give reasons for your choice of scripts.</p> <p>6. Find out the names of companies under various sectors (FMCG, Pharma, automobile, etc) included in the NIFTY and the SENSEX. Make a chart of the same and track its movements over a period of one week.</p> <p>7. (a) Study the sources of recruitment and steps involved in the selection procedure adopted by two companies of the same industry. (b) Compare and evaluate the sources of recruitment and the selection process adopted by the selected companies.</p> <p>8. Formulate a capital plan for a hypothetical business organization. Justify your formulated plan.</p> <p>9. Choose two companies of the same industry. Study their organizational structure. Also give information with regard to: (i) Hierarchy (ii) Centralization and delegation of authority (iii) Flow of information (scalar chain) (iv) Span of control (v) Channel of communication.</p> <p>10. Select any business undertaking. Study the selected business in terms of ownership, capital and profitability. Make a S.W.O.T. analysis and present it in a tabular form.</p> <p><b>NOTE:</b> No question paper for Project Work will be set by CISCE.</p>
<p><b>Accountancy</b></p>	<p>Students will be expected to have completed two projects from any topic covered in Theory. A list of suggested Projects is given below:</p> <p>I. Preparation of Journal / sub-division of journal, Ledger, Trial balance and Financial Statements of a partnership form of business on the basis of a case study.</p> <ul style="list-style-type: none"> <li>• Develop a case study showing how two or more friends decide to come together and start a business with a certain amount of capital.</li> <li>• Prepare their Partnership Deed including interest on capital, partner's salary, commission, interest on drawings, interest on partner's loan and rent paid to a partner.</li> <li>• Write in detail, their transactions during the year: purchases - cash and credit, sales - cash and credit, expenses, purchase of fixed assets and depreciation charged on them, any outstanding expenses, prepaid expenses, accrued income, drawing bills of exchange, accepting bills payable etc.</li> <li>• From this case study developed (which should have at least 15 transactions), pass the journal entries, post them into the ledger, prepare a Trial Balance and the Trading and Profit and Loss Account, Profit and Loss Appropriation Account and Balance Sheet.</li> <li>• The various expenses, for comparison purposes, could be depicted in the form of bar diagrams and pie charts.</li> </ul>

	<ul style="list-style-type: none"> <li>• Calculate relevant accounting ratios like liquidity, solvency, activity and profitability giving their formulae and computation (all this could be part of the viva-voce).</li> <li>• The ratios could also be shown graphically and/ or pictorially (bar diagrams and pie charts) and if possible, could be compared with the ratios of the industry.</li> </ul> <p>2. Preparation of a Cash Flow Statement with the help of audited / unaudited / imaginary Balance Sheets of a company for two consecutive accounting years or two consecutive quarters of an accounting year could be taken along with at least five additional information (depreciation, purchase/ sale of fixed assets, dividend paid/ proposed, tax paid/ proposed, amortization of intangible assets, profit or loss on sale of fixed assets including provision for depreciation on them and profit or loss on sale of investment).</p> <ul style="list-style-type: none"> <li>• The results of the operating, investing and financing activities could be shown graphically and/ or pictorially (bar diagrams and pie charts).</li> </ul> <p>3. Preparation of Common Size and Comparative Income Statement and Balance Sheet of a company by taking into account its audited, unaudited / imaginary financial results of two consecutive quarters of an accounting year or of two consecutive accounting years.</p> <ul style="list-style-type: none"> <li>• The comparison has to be made in the form of Common Size and Comparative Income Statement and Balance Sheet.</li> <li>• The comparison could also be shown graphically and/ or pictorially (bar diagrams and pie charts).</li> </ul> <p>4. Taking the audited/ unaudited / imaginary financial results of any leading company, its liquidity, solvency, activity and profitability ratios of two consecutive accounting years or of two consecutive quarters of an accounting year should be calculated and the comparison of the ratios of both the years or quarters should be shown graphically and/ or pictorially (bar diagrams and pie charts).</p> <p><b>GENERAL INSTRUCTIONS:</b></p> <ol style="list-style-type: none"> <li>1) Both the projects to be done in the same project file.</li> <li>2) The project work have to be supported with recent data and pictures</li> <li>3) The project should be done independently.</li> <li>4) The project should be neatly done on Interleaf project papers and in good handwriting. Each project should be of around 20-30 pages, which means the whole project work should be of 40-50 pages.</li> <li>5) Follow the given sequence for the project- i) Acknowledgement, ii) Certificate, iii)Index iv) Content and v) Bibliography</li> </ol>
<b>Economics</b>	<p>Prepare project on any of the two topics given below</p> <ol style="list-style-type: none"> <li>1. Study a Public Sector Enterprise with reference to its relevance to the Indian Economy and its future prospects. Analyse the trend of its growth for the last ten years.</li> <li>2. Central banks , Commercial Banks and its functions</li> <li>3. Forms of market</li> <li>4. Government Budget and its component</li> <li>5. Balance of payments</li> <li>6. Theory and Elasticity of demand</li> <li>7. Make a comparative study of the allocation of financial resources of the Central Government Budget on Agriculture, Defence, Industry and Education in the last ten years. Prepare a report on your observations.</li> <li>8. Prepare a trend Analysis of Growth and Productivity of any one industry such as: Textile / Automobiles / Electronic and Tele-communication, etc. in India for the past ten years</li> </ol>
<b>Physical Education</b>	Prepare a project file on two games and sports
<b>Arts</b>	Prepare 5 art practise sheets each for all the 3 papers along with the folders.
<b>Home Science</b>	Project on : Select any three state in india and study their traditional weaves, prints and costumes .Prepare a report on the same.

<p><b>Political Science</b></p>	<ol style="list-style-type: none"> <li>1. Prepare a project file as per CISCE guidelines discussed in the class.</li> <li>2. Revise all the chapters completed in the class.</li> <li>3. Categorise all the G20 member countries into Federal and Unitary state.</li> <li>4. Tabulate all the neighbouring countries of India into Totalitarian, Authoritarian and Liberal Democratic regimes.</li> <li>5. Make a question bank of 50 questions in following format             <ol style="list-style-type: none"> <li>a) 2 marks- 25 questions</li> <li>b) 6 marks - 25 questions</li> </ol> </li> </ol>
<p><b>Psychology</b></p>	<p><b>Attitude:</b></p> <p>To study attitudinal differences regarding Marriage.          Groups: Two generations (parents and students)</p> <p><b>Tools:</b> to construct a simple 5-point scale (10-15 items) with positively and negatively worded statements.  <b>Raw Data:</b> Summated scores on all the statements for each respondent.  <b>Analysis:</b>          (i) Calculate mean attitudinal scores for each group and make inter-group comparisons.          (ii) Short, structured interview schedule constructed and administered to 8-10 students in each group. The responses elicited can be used to draw inferences to explain the inter-group differences, if any.</p> <p><b>Stress:</b></p> <p>To study the causes and effects of stress among school students.          Group: Class X or Class XI students</p> <p><b>Tools:</b> To construct two checklists - one indicating the potential stressors along with a 5-point rating scale indicating their frequency of occurrence (very often, often, sometimes, rarely, very rarely). The stressors should include dispositional/internal variables (personality attributes, cognitive appraisal) and situational/external variables (life events, environmental pressures – physical, social, cultural and academic stressors).          The second checklist should indicate the effects of stress (strain) – physical, psychological and behavioural along with their frequency of occurrence (on a 5-point rating scale).  <b>Analysis:</b> To determine the stressors and the effects that occur with the most to the least frequency and understand/explain each.</p>