St. Mary's Convent Inter College

Manak Nagar, Lucknow

SUMMER VACATION HOMEWORK (SESSION 2025-2026)

CLASS-XII

S. No.	Subject	Homework
1	ECONOMICS	PROJECT WORK TOPIC (1) Theory of Consumer Behaviour (Chapter-3) (2) Unit Money and Banking Write the answers to the questions from chapter 5 to 9 discussed in the class
2	ENGLISH LANGUAGE	PROJECT Q.1. As a son / daughter of a serving officer in the Army, you have spent a maximum of three years at one place. After closely observing life in different parts of the country, describe the differences you observe in the eating habits of people from different regions of India. Revise: Directed writing(Article, Speech, Newspaper Report); Proposal Writing, Do as directed sentences, phrasal verbs and tenses
3	ENGLISH LITERATURE	PROJECT Q.1. Give a vivid picture of the Banquet Scene in Act III Scene 4, in Shakespeare's Macbeth. How is the Banquet Scene significant particularly in terms of exploration of character, thematic development and foreshadowing of events to come ? Q.2. With reference to the events in Act III of the play, 'Macbeth', analyse how Macbeth's ambition to retain his kingship destroys his conscience. Clearly state four instances from the text to support your evaluation. Revise the chapters taught
4	CHEMISTRY	1.Prepare the chapters 'Solutions' and 'Haloalkanes and halorenes' and 'Alcohols, phenols and ethers'. 2.Do the following questions in your fair copy: A.)5 gm of a substance with molecular weight 200 is dissolved in 50 gm of solvent with molecular weight 60 and vapour pressure 40 cm Hg at 27˚C. Calculate the vapour pressure of the solution. B.)Which of the following solution will have a lower vapour pressure and why? i.)A 5% solution of cane sugar($C_{12}H_{22}O_{11}$) ii.)A 5% solution of urea (NH_2CONH_2) (GAM of H=1 ,C=12 ,O=16 ,N=14) C.)Albumins are most abundant proteins in blood. At 25˚C, 3.5 gm of albumin in 100 ml of water produces an osmotic pressure of 0.014 atm. What is the molecular weight of albumin?

		[R=0.0821L atm $K^{-1}mol^{-1}$] D.)Give suitable reason for each of the following: 1. Osmotic pressure method is preferred for the determination of molecular weight of proteins and ploymers. 2. Ethanol and cyclohexane shows positive deviation from Raoult's Law. E.)The Henry Law constant of $H_2(g)$ in water is 5.34×10^7 torr. Calculate the solubility of this gas in mol/dm^3 in water if its partial pressure over the solution is 760 torr. Assume that the density of the solution is same that of the solvent.[GAM of H=1,O=16; density of water =1000gm/l] F.)The freezing point of nitrobenzene is 278.8K . A 0.25 molal solution of a substance (molwt.=120) in nitrobenzene has a freezing point of 276.8 K .Calculate the molal depression constant of nitrobenzene. G.)Outer hard shells of two eggs are removed. One of the egg is placed in pure water and the Other is placed in saturated solution of NaCl. What will be observed and why? H.)Calculate the osmotic pressure at 0˚C of a 5% solution of urea.(Molecular mass=60, R=0.0821 l atm $degree^{-1}mol^{-1}$) I.)Oceans do not freeze.Give reason. J.)Vapour pressure of water at 293K is 17.51 mm. Lowering of vapour pressure of a sugar Solution is 0.0614 mm. Calculate : i.)Relative lowering of vapour pressure. ii.)Vapour pressure of the solution iii.)mole fraction of water. K.)Calculate the mass of ascorbic acid (Vitamin C, $C_6H_8O_6$) to be dissolved in 75 g of acetic Acid to lower its melting point by 1.5^0 C.[K_f=3.9 K kg/mol ,GAM of C=12 ,H=1 ,O=16] L.)Write the following named reactions: i. Finkelstein reaction ii. Swarts reaction iii. Hunsdiecker reaction iv. Wurtz reaction v. Iodoform reaction vi. Sandmeyer's reaction vii. Gattermann reaction viii. Wurtz –Fittig reaction ix. Fittig reaction x. Grignard reagent preparation xi. Williamson's synthesis xii. Dehydration reaction xiii. Esterfication reaction xiv. Kolbe's reaction

		xv. Reimer -Tiemann reaction xvi. Azo dye test xvii. Friedel craft alkylation and acylation M.)How will you distinguish between the following pair of organic compounds: a. Pentan-2-one and Pentan-3-one b. 2-Methylpropan-2-ol and Butan-2-ol 3.)Complete your project file. 4.)Complete the practicals in lab manual.
5	ACCOUNTS	**PROJECT** (Marks 20) (ANY TWO TOPICS to be chosen from the following for 10 Marks each) 1. Partnership Deed contents/ clauses for accounting purpose 2. Comparative Statement Analysis of any company 3. Common Size Statement Analysis 4. Ratio Analysis 5. Cash Flow Statement **NOTE:** a. Each project must have common page of an Index, Acknowledgement, Preface in the beginning and bibliography at the last. Project must be properly covered with black chart paper / transparent cellophane sheet. b. Each topic must be supplemented by learning, conclusions/findings drawn and understanding of facts gathered while preparing topic on separate pages at the end of each topic. c. At least 10 pages must be used to cover up topics other than common pages. d. No page should be left blank and related pictures, photos, tables and charts (graphical presentation) must be used throughout and neatly pasted. **Home Assignment given in each chapter to be completed in Accounts note book**
6	COMMERCE	**PROJECT** (Marks 20) (ANY TWO TOPICS to be chosen from the following for 10 Marks each) 1. SWOT analysis of any goods, services, or of a company 2. Latest Banking trends 3. Consumer Protection - any five case laws 4. Marketing Strategies of two FMCG companies. 5. Organizational Structure of two companies

		NOTE: a. Each project must have common page of an Index, Acknowledgement, Preface in the beginning and bibliography at the last. Project must be properly covered with black chart paper/ transparent cellophane sheet. b. Each topic must be supplemented by learning, conclusions/findings drawn and understanding of facts gathered while preparing topic on separate pages at the end of each topic. c. At least 10 pages must be used to cover up topics other than common pages. d. No page should be left blank and related pictures, photos, tables and charts (graphical presentation) must be used throughout and neatly pasted. **Home Assignment given in each chapter to be completed in Commerce note book**
7	PHYSICAL EDUCATION	1. Search and write 500 new terminologies of game cricket and football 2. Find maximum MCQ from 1 -3 chapters. 3. Project file must be completed**.**
8	COMPUTER	1) Prepare the Computer Project with at least 20 programs 2) Prepare the chapter Boolean Algebra 3) Attempt the Java programs of topic “Recursion” from given exercise sheet
9	PHYSICS	Project work Solve numerical of chapter 1 to 4
10	BIOLOGY	Complete the project work and Lab Manual. Draw neat and well labelled diagrams with pencil. Revise Unit 1 Reproduction Learn Chapter Micobes in Human Welfare and Human Evolution.
11	MATHS	**Project Work :** 1) Inverse Trigonometric Function 2) Application of Derivatives in Economics