O. P. Jindal School, Savitri Nagar

Session 2025-26

HOMEWORK FOR SUMMER VACATION

Class – XII

S.N.	Subject	***Do all the tasks on A4 size sheets and submit in a well-organized manner, <u>avoiding plastic folders</u>.***
1.	**ENGLISH**	Be creative, thoughtful, and sincere. Use this break to reflect, explore, and express! ***1.*** *Concept Collage – Literary & Social Terms* Pick **any 10 literary/social concepts** (Socialism; Capitalism; Romanticism; Feminism; Racism; Nationalism; Communalism; Democracy; Colonialism; Chauvinism; Humanism; Multiculturalism; Satire; Irony; Symbolism; Metaphor; Simile; Alliteration; Personification, Onomatopoeia.) For each: • Define in your own words (20–30 words); Quote from literature OR real-world example; Add a picture or collage for each (*Make it a visual portfolio*) ***2.*** *Issue-Based Article / Editorial* Write a **200–300 word article** on a theme inspired by literature or real life on any one topic: • The Relevance of Mother Tongue – Inspired by *The Last Lesson* • Escaping Reality in the Digital Age – Inspired by *The Third Level* • Stolen Dreams: Why Child Labour Still Haunts Our Streets – Inspired by *Lost Spring* • Power, Pride, and the Price of Ego: A Lesson from Extinction – Inspired by *The Tiger King* • Aging Gracefully in an Age that Glorifies Youth – Inspired by *My Mother at Sixty Six* • Appearances vs Reality in Social Media Life **[Structure like a newspaper editorial with a compelling headline and conclusion**.] ***3.*** *Independent Research Project* Choose any **theme from the syllabus or global context** and create a mini research dossier (1000–1200 words). **<u>Project must include:</u>** • Cover Page, Acknowledgment, Certificate • Abstract • Research Objectives • 3–4 sections with examples, graphs, infographics • Your reflections (what you learned and how it matters to your life) • Bibliography **<u>Suggested Topics:</u>** **[From The Last Lesson – Alphonse Daudet]** **1. Language and Identity: Why Mother Tongue Matters** → Research the role of native language in shaping cultural identity and the psychological impact of losing linguistic heritage. → Students may interview family members who speak different languages or collect local stories of language change. **2. Colonial Education and Cultural Displacement** → A study of how colonial powers used language as a tool of dominance, with reference to historical and present-day parallels. **[From *Lost Spring* – Anees Jung]** **3. The Economics of Child Labour in Urban Slums** → Investigate the root causes of child labour in India and suggest sustainable solutions.

		→ Students may include case studies, NGO interventions, and field observations if possible. **4. Education vs. Survival: The Dilemma of Marginalised Children** → Analyze why access to education remains unequal, particularly for street children, and propose policy-level recommendations. **[From *The Third Level* – Jack Finney]** **5. Nostalgia and Escapism: Coping Mechanisms in Modern Life** → Explore how people use nostalgia, fantasy, or virtual spaces (like games and social media) to manage stress and anxiety. **6. Alternate Realities and Time Travel in Literature and Popular Culture** → A creative research-based project comparing *The Third Level* with other sci-fi/fantasy works (e.g., *Inception*, *Back to the Future*). **[From*The Tiger King* – Kalki]** **7. Satire as a Weapon: Questioning Power through Humour** → Research how satire in literature (including *The Tiger King*) exposes the follies of power and authoritarianism. → Compare with cartoons, editorials, and contemporary satire in media. **8. Human Greed and Wildlife Destruction: A Historical Perspective** → Explore the relationship between royal hunting, deforestation, and the extinction of species in India's history. → Include case studies on Project Tiger or recent wildlife conservation campaigns. **[From *My Mother at Sixty-Six* – Kamala Das]** **9. The Emotional Impact of Aging and Separation in Urban Families** → A socio-emotional study on how modernization affects family structures and the emotional well-being of the elderly. **10. Poetry of Personal Pain: Confessional Voices in Indian Literature** → Explore how Indian poets like Kamala Das use personal experiences to reflect larger themes of identity, aging, and womanhood. **[Role of Adolescents in Nation Building]** **11. Youth as Catalysts of Social Change: Real-life Examples** → Research how teenagers and young adults have driven major societal movements in India or globally (e.g., climate activism, education rights, anti-corruption). → Include interviews with student leaders or community influencers, if possible. **12 The Power of Student Voice in Democracy** → Explore how young citizens contribute to democracy through expression, social media, protest, and community service. → Include literary reflections from authors who portrayed youth-led reform (e.g., *The Diary of Anne Frank* or *Swami and Friends*). **13 Civic Sense and Nation Building: A School-Based Initiative** → Design and document a civic engagement campaign (like cleanliness, awareness, or digital safety) in school or community as part of the project. → Connect with NEP 2020 values and the idea of responsible citizenship. **[Impact of Climate Change on Daily Life]** **14. Small Changes, Big Impact: Climate Change in Our Backyards** → Study the visible effects of climate change in your locality (erratic weather, reduced rainfall, rising temperatures). → Document interviews with farmers, shopkeepers, or senior citizens to record their lived experience. **15. From Fiction to Fact: Literature That Warned Us** → Explore how writers and poets forewarned about environmental degradation through fiction or poetry (e.g., *Journey to the End of the Earth* by Tishani Doshi, *A Roadside Stand* by Robert Frost). → Include quotes and their analysis with present-day examples. **16. Greener Schools, Greener Planet: What Can Students Do?** → A solution-focused research study on school-based interventions (waste management, energy saving, tree plantation) and how they influence student behaviour. **********

2.	**Hindi**	**ग्रीष्मावकाश गृहकार्य कक्षा 3** 1 प्रतिदिन एक पेज सुलेख लिखकर मेल कीजिए। 2 अपना और अपने परिवार के सदस्यों का हिंदी में परिचय देते हुए वीडियो बनाकर मेल में भेजिए। 3 अपने परिवार का फोटो संग्रह कर डिजिटल अलबम बनाइए। Email. opjshindi.hw@gmail.com **ग्रीष्मावकाश गृहकार्य कक्षा 4** 1 प्रतिदिन एक पेज सुलेख लिखकर मेल कीजिए। 2 अपनी मनपसंद कविता का वाचन करते हुए ऑडियो या वीडियो बनाकर मेल कीजिए। 3 अपने परिवार का फोटो संग्रह कर डिजिटल अलबम बनाइए। Email. opjshindi.hw@gmail.com **ग्रीष्मावकाश गृहकार्य कक्षा 5** 1 प्रतिदिन कोई एक पैराग्राफ़ पढ़कर उसे अपने शब्दों में लिखकर मेल कीजिए। 2 ग्रीष्मावकाश में की गई यात्रा का विवरण देते हुए उन स्थलों का वीडियो मेल कीजिए। अथवा छत्तीसगढ़ राज्य की सांस्कृतिक झाँकी (वेशभूषा, खानपान, नृत्य, दर्शनीय स्थल आदि का) वीडियो के रूप में मेल कीजिए। 3 साप्ताहिक समाचार बोलते हुए ऑडियो या विडियो बनाकर मेल कीजिए। Email. opjshindi.hw@gmail.com **ग्रीष्मावकाश गृहकार्य कक्षा 6** 1 प्रतिदिन एक दोहे का सस्वर वाचन करके उसका ऑडियो या विडियो रिकार्ड करके मेल कीजिए। 2 ग्रीष्मावकाश में की गई यात्रा का विवरण देते हुए उन स्थलों का वीडियो मेल कीजिए। अथवा मध्यप्रदेश राज्य की सांस्कृतिक झाँकी (वेशभूषा, खानपान, नृत्य, दर्शनीय स्थल आदि का) वीडियो के रूप में मेल कीजिए। Email. malharclass6@gmail.com **ग्रीष्मावकाश गृहकार्य कक्षा 7** 1 प्रतिदिन किसी एक कविता का सस्वर वाचन करके उसका ऑडियो रिकार्ड करके मेल कीजिए। 2 ग्रीष्मावकाश में की गई यात्रा का विवरण देते हुए उन स्थलों का वीडियो मेल कीजिए। अथवा उत्तरप्रदेश राज्य की सांस्कृतिक झाँकी (वेशभूषा, खानपान, नृत्य, दर्शनीय स्थल आदि का) वीडियो के रूप में मेल कीजिए। Email. malharclass7@gmail.com **ग्रीष्मावकाश गृहकार्य कक्षा 8** 1 कवि नरोत्तम दास और रहीम जी की कविताओं का वाचन करके वीडियो बनाकर मेल कीजिए। 2 ग्रीष्मावकाश में की गई यात्रा का विवरण देते हुए उन स्थलों का वीडियो मेल कीजिए। अथवा राजस्थान राज्य की सांस्कृतिक झाँकी (वेशभूषा, खानपान, नृत्य, दर्शनीय स्थल आदि का) वीडियो के रूप में मेल कीजिए। Email. malharclass8@gmail.com **ग्रीष्मावकाश गृहकार्य कक्षा 9** 1 कवि रसखान और कबीर दास जी की कविताओं का वाचन करके वीडियो बनाकर मेल कीजिए।

2 ग्रीष्मावकाश में की गई यात्रा का विवरण देते हुए उन स्थलों का वीडियो मेल कीजिए।

अथवा

तिब्बत समाज की सांस्कृतिक झाँकी (वेशभूषा, खानपान, नृत्य, दर्शनीय स्थल आदि का) वीडियो के रूप में मेल कीजिए।

3 दिए गए फारमेट में अपना पोर्टफोलियो बनाकर मेल कीजिए।

1 अनुक्रमणिका
2 छात्र/छात्रा का परिचय
3 रुचि/अरुचि
4 आत्म जीवन परिचय
5 पारिवारिक सदस्य
6 मेरा सबसे अच्छा मित्र
7 मेरे आदर्श व्यक्ति
8 मेरे जीवन का लक्ष्य

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ग्रीष्मावकाश गृहकार्य कक्षा 10

1 कवि सूरदास और तुलसीदास जी की कविताओं का वाचन करके वीडियो बनाकर मेल कीजिए।
2 दिए गए फारमेट में अपना पोर्टफोलियो बनाकर मेल कीजिए।
   1 अनुक्रमणिका
   2 छात्र/छात्रा का परिचय
   3 रुचि/अरुचि
   4 आत्म जीवन परिचय
   5 पारिवारिक सदस्य
   6 मेरा सबसे अच्छा मित्र
   7 मेरे आदर्श व्यक्ति
   8 मेरे जीवन का लक्ष्य

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ग्रीष्मावकाश गृहकार्य कक्षा 11

1 कवयित्री मीरा पर आधारित एक डाक्यूमेंट्री वीडियो बनाकर मेल कीजिए।
2 मुंशी प्रेमचंद जी का जीवन परिचय, कार्यशैली, रचनाएँ एवं उनके संघर्ष का वर्णन कीजिए। (लगभग दस पेज में)

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ग्रीष्मावकाश गृहकार्य कक्षा 12

1 कवि तुलसीदास जी पर आधारित एक डाक्यूमेंट्री वीडियो बनाकर मेल कीजिए।
2 समाचार वाचन शैली पर आधारित किसी समाचार का वीडियो बनाकर मेल कीजिए।
3 हरिवंशराय बच्चन जी का जीवन परिचय, कार्यशैली, रचनाएँ एवं उनके संघर्ष का वर्णन कीजिए। (लगभग दस पेज में)

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3.	**IP**	Cyber Security and Data Science ➢ What is Cyber Security? ➢ What is Data Science? ➢ What is the role of Cyber Security? ➢ Write some software names for Cyber Security? Search more about Cyber Security with the help of internet, newspaper and computer magazines. Make a PowerPoint presentation on the topic – Advantages of Cyber Security and Data Science. Set a beautiful background. Apply nice formatting and animation effects on it.
4.	**physics**	Exercise problems from NCERT chapter 1 to 5.
5.	**CS**	1. Read the following chapters from text book: a. Python Revision Tour – I b. Python Revision Tour – II c. User Defined Functions d. File Handling 2. Complete the exercise and assignment questions of the above mentioned chapters from the book. 3. Revise the theoretical concepts of programming 4. Prepare all chapters for Periodic Test I 5. Plan for the topic of the project, group members in the project and submit the synopsis after summer break. 6. Prepare Activity/Practical file containing 5 questions each from the following topics: a. Conditional Programming and Iterative Programming b. Lists, Tuples and Dictionary c. User defined functions
6	**Chemistry**	**Q-1.**Density of a 2.05M solution of acetic acid in water is 1.20g/mL.Calculate the strength of the solution in terms of molality. **Q-2.**What is the mole fraction of the solute in 2.5 m aqueous solution? **Q-3.**For a first order reaction,calculate the ratio between time taken to complete three-fourth of the reaction and the time taken to complete half of the reaction. **Q-4.**The rate law for reaction of A , B and C has been found to be : rate = k [A][B][C]^2

.How would the rate of reaction change when :

(i)concentration of C is doubled

(ii)concentration of each of A , B and C are tripled.

Q-5.(i)Which out of molarity or molality will change with the change in temperature and why?

(ii)At same temperature,hydrogen is more soluble than helium.Which of them will have a higher value of K_H and why?

Q-6. The half life period for radio active decay of ^{14}C is 5730 years.An archaeological artifact contained wood had only 80% of ^{14}C found in a living tree.Estimate the age of the sample. (log 1.25 = 0.0969)

Q-7. The rate constant for a first order reaction becomes six times when the temperature is raised from 350 to 400 K.Calculate the activation energy for the reaction.

($R=8.314\ JK^{-1}mol^{-1}$, log 6 =0.7782)

Q-8. Explain what is meant by

(i)Glycosidic linkage (ii)Peptide linkage

Q-9. What happens when D-glucose

(i)is treated with HNO_3 (ii) is heated with HI (iii)is treated Br_2 water

Q-10. Give reasons for the following :

(i)t-butyl bromide is more reactive towards S_N1 reaction as compared to n-butyl bromide.

(ii) CH_3CH_2I undergoes S_N2 reaction faster than CH_3CH_2Br.

Q-11. What is meant by negative deviation from Rault's law?Draw a digram to illustrate the relationship between vapour pressure and mole fraction of components in a solution to represent negative deviation.

Q-12. State Henry's law and mentions its two important applications

Q-13. The rate of a reaction quadruples when temperature changes from 293Kto 303K. Calculate E_a assuming that it does not change with time. (log 4=0.6021)

Q-14. Write the structure of the major organic products in each of the following reactions;

(i) $CH_3CH_2CH_2OH + SOCl_2$ ---------→

(ii) $CH_3CH_2CH = CH_2 + HBr$ ---------

Q-15. The following data were obtained during the first order thermaldecomposition of SO_2Cl_2 at constant volume:

SO_2Cl_2 ------→ $SO_2(g) + Cl_2(g)$

Experiment	Time	Total Pressure/atm
1	0	0.4
2	100	0.7

Calculate rate constant.(Given, log 4=0.6021 , log 2=0.3010)

Q-16.(i)What is the difference between molarity and molality of a solution ?

(ii)A solution of glucose ($C_6H_{12}O_6$) in water is labeled as 10% by weight.What would be the molality of the solution.

Q-17. What mass of ethylene glycol(molar mass 62 g mol^{-1}) must be added to 5.50 kg of water to lower the freezing point of water from 0 ^{0}C to – 10^{0}C ?(K_f for water =1.86 K kg mol^{-1})

Q-18. In chloro benzene,why does NO_2 group show its effect at ortha and para position and not at meta position for nucleophilic attack ?

Q-19. 36 g of glucose dissolved per litre of the solution has an osmotic pressure of 4.98 bar at 300 K.If the osmotic pressure of the solution is 1.76 bar at same temperature, what would be its concentration?

Q-20. 18 g of glucose is dissolved in 1 kg of water in a saucepan.At what temperature will water boil at 1.103 bar?(K_b for water is 0.52 K kg mol^{-1}

		Q-21. Solve 5 questions everyday from the exercises of the following chapters. **(i)**Solutions **(ii)**Chemical Kinetics **(iii)**Haloalkanes and Haloarenes **(iv)**Biomolecules
7	**Mathematics**	A. **Solve at least 5 questions daily in your practice note-book from the following chapters taught during the month of April-May. Solve all the problems from NCERT including all examples and then solve problems from R. D. Sharma or any other reference books.** **i) Integration** **ii) Application of Integration** **iii) Continuity and Differentiability** **B. Write 15 MCQ's from all 3 chapters and get the answers by solving them.**
8	**Biology**	**1. What is a patent?** **2.What are genetically modified organisms (GMOs)? Explain the difference between GMO and hybrid.** **3.How is the insulin produced through recombinant DNA technology more beneficial than the insulin taken out of the pancreas of slaughtered pigs and cattle?** **4.What is the technology used in the detection of the HIV virus?** **5.Justify the statement "industrialised nations are exploiting the bioresources of under-industrialised nations".** **6.How to produce a nematode-resistant transgenic plant?** 7.**Who was tested with the first gene therapy?** **8.How was rDNA technology used by Eily Lily to produce peptide hormones?** **9.List the drawbacks of the insulin produced from slaughtered pigs and cows.** **10. Enlist some uses of biotechnology.** **11. Explain cloning.** **12. What is the use of biotechnology in medicine?** **13. What are the two important tenets of biotechnology?**
9	**Accountancy**	**1.** Complete All Questions of Vo.1 Partnership Accounting (chapters 1, 2,3,4 and 5) from D K Goel. **2.** Do the Project Work as per CBSE guidelines: Details are as under: One specific project based on financial statement analysis of a company covering any two aspects from the following: a. Comparative and common size financial statements. b. Accounting Ratios. c. Segment Reports. d. Cash Flow Statements. **SEQUENCE OF THE PROJECT** 01. Front page: To be printed on glossy paper

		02. Certificate: To be printed on glossy paper 03. Acknowledgement. 04. Contents/Index. 05. Prologue 06. Bibliography **INSTRUCTIONS:** a) Use A4 size plain or one side ruled paper only. b) Matter should be written on one side of the paper and Formats, flow charts etc. should be drawn on the flip side only. c) Leave a margin of one inch on left side of the page for spiral binding. d) Project should be neat and systematically presented. e) Excessively colorful and adorned projects will not be accepted. f) Only certificate and company's financial statements can be machine print outs but rest of the matter should be handwritten including the front page. g) Any other printed matter is unacceptable. h) Financial statements of company should be of last years.
10	**Economics**	**1.** Prepare flash cards with formulas of methods of measurement of national income and determination of income and employment. **2.** Read the chapter: Development Experience of India: a Comparison with neighbors from book of Indian Economic Development and prepare PPT on the following topics: a) Demographic indicators b) Human development indicators c) Gross domestic product and sectors. **3.** Research Based Project to prepare PROJECT REPORT as per the following guidelines: The expectations of the project work are that: Learners will complete only ONE project in each academic session. ❖ Project should be of 3500-4000 words (excluding diagrams & graphs), preferably hand written. It will be an independent self-directed piece of study. **Expected Checklist:** ➢ Introduction of topic/title ➢ Identifying the causes, consequences and /or remedies ➢ Various stakeholders and effect on each of them Advantages and disadvantages of situations or issues identified ➢ Short term and long-term implications of economic strategies suggested in the course

		of research ➢ Validity & reliability, appropriateness and relevance of data used for research work and for presentation in the project file. ➢ Presentation and writing that is succinct and coherent in project file ➢ Citation of the materials referred to, in the file in footnotes, resources section, bibliography etc. ***(Topics of project allocated in class and circulated in subject group)*** **4.** Revise all the chapters which have been covered in the class.
11	**BSt**	**1.** Prepare the project work on the topic allotted- ❖ Project A: MARKETING MANAGEMENT ❖ Project B: BUSINESS ENVIRONMENT ❖ Project C: STOCK EXCHANGE ❖ Project D: PRINCIPLES OF MANAGEMENT (*Guidelines already discussed in the class*) **Presentation and submission of project report :** At the end of the stipulated term , each student will prepare and submit his/her project report. Following essentials are required to be fulfilled for its preparation and submission. 1. The total length of the project will be of 25 to 30 pages. 2. The project should be handwritten. 3. The project report should be presented in a neat folder. **The project report should be developed in the following sequences.** ➢ Cover page should include the title of the project, student information, school and year. ➢ List of contents. ➢ Acknowledgements and preface (acknowledging the institution, the places visited and the persons who have helped.) ➢ Introduction o Topic with suitable heading. ➢ Planning and activities done during the project, if any. ➢ Observations and findings of the visit. ➢ Conclusion (summarized suggestions or findings, scope of study). ➢ Photographs (if any). ➢ Appendix. **2.** Learn and Revise Chapter 1,2 ,3,4 and 5 and while revising follow the Practice Manual

		and solve the case studies.
12.	**GEOGRAPHY**	Map Work 1. *Mark and label major geographical features on political outline map of India and on an outline map of the world. Given in the syllabus. 2. Complete your project file in summer vacation topic is given in the syllabus. Project Work 1. Create a project on a specific geographical theme, such as: - Climate change and its impact on India 2. Conduct a case study of a geographical phenomenon*, such as: - A specific natural disaster (e.g., earthquake, flood, drought) - A particular environmental issue (e.g., air pollution, deforestation)
13.	**Physical Education**	**1.** Briefly explain Sports management has change the standard of Physical Education & Sports. **2.** What is League Tournament? Discuss the benefits of fixture by League method. **3.** Discuss the benefits of Knock out method. **4.** Draw the Fixture of 17& 18 teams by knock out method. **5.** Draw the Fixture of 9 & 10 teams by knock out method where 2 teams are seeded. **6.** Draw the Fixture of 11 & 12 teams by League Cyclic method. **7.** Draw the Fixture of 13 & 14 teams by League Stair case Method. **8.** Discuss your contribution to the school in Organizing Inter school Volleyball

		Tournament