O.P. JINDAL SCHOOL, SAVITRI NAGAR

SUMMER VACATION HOLIDAY HOMEWORK
(SESSION -2025-2026)
CLASS X

Sl no.	Subject	Topics
1.	**English**	***Do all the tasks (except Workbook exercises)on A4 size sheets and submit in a well-organized manner, avoiding plastic folders.*** Be creative, thoughtful, and sincere. Use this break to reflect, explore, and express! ***1.*** *The Word Detective: Vocabulary Mission* Choose a video (TED Talk, Documentary clip, Speech, etc.) related to **growth mindset / innovation / technology / global issues**. • Jot down **10 new words/phrases**. For each word or phrase, write the following: • Meaning; Two synonyms & one antonym; A sentence of your own; *One visual or doodle* to represent it (*TED/YouTube link to be mentioned*) ***OR*** **Choose any ONE reading material** from the following: • A feature article from a newspaper or magazine • A chapter or section from your English or Science textbook • A printed essay, speech, or biography related to innovation or global challenges **Read carefully** and **pick out 10 new or interesting words/phrases**. For each word or phrase, write the following: • Meaning (Use your dictionary); Two synonyms & One antonym; Use it in a sentence of your own; Draw a simple doodle or symbol that visually represents the word; Mention the title, author (if known), and source of the text you used. ***2.*** *Reel to Real – Book-to-Movie Review* Read any book that has been adapted into a movie (*e.g., The Diary of Anne Frank, Life of Pi ,or a book of your choice*). • Watch the film adaptation too. • Compare and review both (300–350 words): o What changes did you notice? o What was better—book or film? Why? o Your personal takeaway ***3.*** *Poem-Paint-Reflect* • Write a **10-line original poem** on any theme: *Nature, Family, Friendship, Future, Peace, or Freedom*. • Add a **sketch, painting, or collage** to reflect your theme visually. • Add a short **note on what inspired your poem**.

		4. *Creative Grammar Quest* • Pick a **favourite object at home** (old clock, bicycle, pen, cupboard, etc.). • Write a **descriptive paragraph (100-120 words)** using at least: 10 **adjectives,** 5 **adverbs,** and 5 **figurative expressions** (simile, metaphor, personification, etc.) ***5.*** *Workbook Exercises* Complete all the exercises of Workbook (Words and Expressions- 2) – Unit 1 & Unit 2, using pencil.
2.	**Hindi**	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 Email. Kshitijclass10@gmail.com
3.	**Sanskrit**	**अपठित–अवबोधनम्** **प्र0 1 अधोलिखितम् अनुच्छेदं पठित्वा प्रश्नानाम् उत्तराणि संस्कृतेन लिखत–** (निम्नलिखित अनुच्छेद को ध्यान से पढ़कर निर्देषानुसार प्रष्नों के उत्तर दीजिए) अति प्राचीन कालात् संस्कृत भाषा अस्माकं धर्म–दर्षन–साहित्य–ज्ञान–विज्ञानादीनाम् क्षेत्राणि पुष्णाति। न केवलं भारते अपितु विदेषेषु अपि अस्याः ग्रन्थानाम् महान् आदरः। ऋग्वेदः संसारस्य प्राचीनतमः ग्रन्थः। भारतीय जीवने रामायणमहाभारतयोः महान् प्रभावः। श्रीमद्भगवद्गीतायाः अनुवादाः प्राप्य सर्वाषु विष्वस्य भाषासु सन्ति। जवाहरलाल नेहरू संस्कृत भाषां देषस्य अत्युत्तमां सम्पदम् अमन्यत। अद्यत्वे जर्मन देषे संगणकेषु संस्कृत भाषायै महत्त्वम् दीयते। विचित्रमिदम् यत् स्वदेषाभिमानषून्यः प्रयोगाय भारतीया एवं इमां स्वकीयां संपदं प्रति न दत्तादराः। **I एकपदेन उत्तरत –** **(1x2=2)** **i** भारतीय जीवने कयोः महान् प्रभावः विद्यते ? **ii** संसारस्य प्राचीनतमः ग्रन्थः कः ? **II पूर्णवाक्येन उत्तरत–** **(2x2=4)** **i** संस्कृत भाषाम् कः देषस्य अत्युत्तमां सम्पदम् अमन्यत् ? **ii** संस्कृत भाषा केषाम् क्षेत्राणि पुष्णाति? **III प्रदत्त विकल्पेभ्यः उचितम् उत्तरम् चित्वा लिखत–**

(1x3=3)

i 'पुष्णाति' इति क्रियापदस्य कर्तृपदम् किम् ?

(अ) संस्कृत भाषा (ब) क्षेत्राणि

(स) साहित्य (द) दर्षन

ii 'निरादरः' इति पदस्य विपरीतार्थकम् किं ?

(अ) दत्तादराः (ब) सम्पदम्

(स) महत्त्वं (द) आदरः

iii 'ग्रन्थः' इति पदस्य विशेषण पदम् किं ?

(अ) ऋग्वेदः (ब) प्राचीनतमः

(स) संसारस्य (द) भारतीय

IV अस्य अनुच्छेदस्य कृते समुचितं शीर्षकं लिखत। इस अनुच्छेद का उचित शीर्षक लिखिए (1)

प्र0 2 अधोलिखितम् अनुच्छेदं पठित्वा प्रश्नानाम् उत्तराणि संस्कृतेन लिखत–

(निम्नलिखित अनुच्छेद को ध्यान से पढ़कर निर्देषानुसार प्रष्नों के उत्तर दीजिए)

किं त्वम् जानासि ? अन्धकारं कः नाषयति ? कः दिनानाम् ,रात्रीणां, मासानाम्, ऋतुनाम्, वर्षाणाम् च कारणम् अस्ति ? को जगतम् शीतात् रक्षति ? इत्यादीनाम् सर्वेषाम् प्रष्नानाम् एकमेवोत्तरम् अस्ति। भगवान् भास्करः इति। सूर्यः दिनकरः मार्तण्डः इत्यादीनाम् अस्य पर्यायः अस्ति। अस्य जगतः प्रकाषकः भास्करः अस्ति। दीपकानाम् प्रकाषे तु जगतः सर्वेव्यवहाराः भवितुम् न शक्नुवन्ति। भास्करस्य अभावे तु सर्वत्र शैत्यमेव भवेत्। पश्याम एवं वयं यत् उत्तर दक्षिणयोः ध्रुव प्रदेषयोः भास्करस्य दर्षनं दुर्लभं भवति। ऋतूनामपि जनकः भास्करः अस्ति। यदा भास्करः उत्तरायणो भवति तदा तस्य प्रकाषः ऊष्मा च तीव्रौ भवतः। एभिः मेघैरेववर्षाः भवन्ति। वर्षाभिरेव विविधानि अन्नानि, शाकाः पादपाः च भवन्ति।

I एकपदेन उत्तरत–

(1x2=2)

i जगतः प्रकाषकः कः अस्ति ?

ii कस्य अभावे सर्वत्र शैत्यमेव भवेत् ?

II पूर्णवाक्येन उत्तरत–

(2x2=4)

i सूर्यः केषां कारणम् अस्ति ?

ii वर्षाभिः कानि भवन्ति?

III अस्य अनुच्छेदस्य कृते समुचितं शीर्षकं लिखत।

(1x1=1)

(इस अनुच्छेद का उचित शीर्षकलिखिए)

IV प्रदत्त विकल्पेभ्यः उचितम् उत्तरम् चित्वा लिखत–

(1x3=3)

		i 'षक्नुमः' इति क्रियापदस्य कर्तृपदम् किम् ? **ii** 'भास्करस्य' इति पदस्य किं पर्यायपदमं गद्यांषे प्रयुक्तम् ? **iii** 'तयोः' इति सर्वनाम पदस्य विषेषण पदं किम् ? **प्र0 3** प्राचार्य महोदयाय अनुपस्थितिवषात् क्षमायाचना पत्रम् मंजूषायाः सहायतया पूरयतं **(½x10=5)** अनुपस्थित रहने के कारण प्राचार्य महोदय को एक क्षमायाचना पत्र लिखिए) श्री प्राचार्य महोदय संस्कृत विद्यालयः, रायगढ़ः मान्यवर ! सेवायाम् इदं निवेदनं यत् (1)——————— सप्ताहे पंचम तिथौ (2)———— गृहस्य अनिवार्य कार्यवषात् विद्यालयात् अवकाषं अनादाय (3)——————— आसम्। तेन् अहम् शतद्वयम् शुल्कदण्डेन(4)———————अस्मि। अहं (5)——————— अवकाषंविना अनुपस्थितो न तिष्ठामि। अयं (6)——————— एव अवसरः। तस्मात् कृपया तस्मिन् (7)———— मम अनुपस्थितिः (8)——————— क्षन्तव्या इति (9)————। सधन्यवादं भवदीयः (10)——————— षिखरः कदापि, भवता, अनुपस्थितः, प्रथमः, षिष्यः निवेदनम्, गते, अहं, दण्डितः, दिने, **प्र04 भवती भाविका। भवतां विद्यालये गीतायाः श्लोकानां अन्त्याक्षरी आयोज्यते। स्वमित्रं देवांषी प्रति लिखिते अस्मिन् पत्रे मंजूषातः रिक्तस्थानानि पूरयत पत्रं च पुनः लिखत–** **(½x10=5)** (आप भाविका हैं। आपके विद्यालय में आयोजित गीता के श्लोकों की अन्त्याक्षरी का विवरण देते हुए मित्र देवांषी को पत्र लिखिए। मंजूषा की सहायता से रिक्त स्थानों को भरते हुए पूरा पत्र लिखिए।) सर्वोदय छात्रावासः आदर्ष संस्कृत महाविद्यालयः (1) ——————— दिनांक——————— प्रिय सखी, (2)——————————— (3) ——————————— अत्र सर्वम् कुषलम्। अस्माकं विद्यालये संस्कृत दिवसे एका (4)———————— आयोज्यते। अस्माकं प्रतियोगिता (5) ———————— कक्षायाः विद्यार्थिभिः (6)——————— भविष्यति। अहं स्व कक्षायाः प्रतिनिधि। भवान् अपि तस्मिन् दिवसे अत्र आगत्य

(7)––––– पष्यतु इति प्रार्थ्यते।
भवत्यः पितृ चरणयोः (8)––––––
(9) ––––––– अभिन्न मित्रम्
(10)––––––

सह, कार्यक्रमम्, अन्त्याक्षरीप्रतियोगिता, नमोनमः, प्रणामाः, भाविका, जयपुरतः, देवांषी, भवताम्, दषम्याः,

प्र05 मंजूषायां प्रदत्तशब्दानां सहायतया चित्रं दृष्ट्वा पंच वाक्यानि संस्कृतेन लिखत– (1x5=5)

(चित्र को देखकर मंजूषा की सहायता से पाँच वाक्यों में संस्कृत में चित्रवर्णन कीजिए)

खेलस्य, क्षेत्रम्, बलिष्ठाः, स्टेडियम, खेलं, विजेतुम्, श्वनं, क्रीडकाः, प्रतिद्वन्द्विनः, कबड्डी, अपि, दर्षकाः, उत्साहेन, सर्वे, एकस्मिन्, दले, अंकेन, अस्माकं, शरतीयाः, एव, पराजयः, वर्तते,

प्र06 मंजूषायांप्रदत्तशब्दानां सहायतया चित्रंदृष्ट्वा पंचवाक्यानि संस्कृतेन लिखत– (1x5=5)

(चित्र को देखकर मंजूषा की सहायता से पाँच वाक्यों में संस्कृत में चित्रवर्णन कीजिए)

इदं, आपणं, षाकानि, जनाः, वृद्धः, कदलीफलानि, क्रीणाति, सर्वे, बालिका, फलानि, गृंजनं, कुक्कुरः, वृद्धाः, रुप्यकाणि,

प्र0 7 अधोलिखितं संवादं मंजूषायां प्रदत्त समुचितशब्दैः पूरयत–

(1x5=5)

(निम्नलिखित वार्तालाप को मंजूषा से उचित षब्द चुनकर पुनः लिखिए)

दिनेषः – सुप्रभातम्, अधुना (1) ––––– किम् करोषि ?

संजयः – (2) ––––– स्वपाठः स्मर्यते।

दिनेषः – अद्यः तु अवकाषः अस्ति किम् श्रमणाय न (3) ––––– ?

संजयः – ष्वः मम संस्कृतस्य कक्षा परीक्षा (4) ––––– अतएव मया रूपाणि स्मर्यते।

दिनेषः – किम् त्वम् ईष्वरस्य (5) ––––– अपि करोषि ?

संजयः – आम् मया ईष्वरस्य श्जनम् नित्यम् क्रियते।

मया, त्वम्, अस्ति, श्जनम्, गच्छसि

प्र0 8 अधोलिखितंसंवादंमंजूषायांप्रदत्तशब्दैः पूरयत। (1x5=5)

(निम्नलिखित वार्तालाप को मंजूषा से उचित षब्द चुनकर पुनः लिखिए)

विद्या– भो सुमित्रे !अहं तु सरोजिनीनगरं (1) ––––– इच्छामि।

एषः (2) –––––कुत्र गच्छति ?

सुमित्रा– विद्ये ! किं न (3) –––––––– यद् अयं मार्गः तुकुत्रा पि न गच्छति।

विद्या– अलम् (4) –––––––– ।

सुमित्रा– (हसित्वा) अहं सत्यमेव वदामि। जनाः तु अस्मिन् चलन्ति एषः नैव (5) –––––।

		जानासि, उपहासेन, मार्गः, चलति, गन्तुम् **प्र0 9 अधोलिखितंसंवादंमंजूषायांप्रदत्तशब्दैः पूरयत।** **(1x5=5)** (निम्नलिखित वार्तालाप को मंजूषा से उचित षब्द चुनकर पुनः लिखिए) **शीला–** हे संगीते! त्वं किं करोषि ? **संगीता–** आगच्छ, अहं तु (1) ––––– पश्यामि। **शीला–** जानासि अहं तुभ्यं (2) ––––– आनयम्। **संगीता–** शोभनम् (3) ––––– पठित्वा अहम् एताम् भ्रातृजायायै सुमित्रायै यच्छामि। **शीला–** तव भ्राता (4) ––––––– कुत्र वसति ? **संगीता–** सः तु लाजपतनगरे (5) ––––––। गीताम्, दूरदर्षनम्, संजयः, श्रीमद्भगवद्गीताम्, वसति
4.	**Mathematics**	**1.** Solve atleast 5 questions daily in your practice note-book from the 4 chapters covered during the month of April-May. Solve all the problems of NCERT including examples and then problems from R. D. Sharma or any other reference book. **2.** Write atleast 15-15 MCQ's from all 4 chapters in your practice note book and then solve them. **3.** Write 3-3 Case Based questions from all the 4 chapters in your practice note book and then solve them.
5.	**I.T**	Ethical Hacking ➢ What is Ethical Hacking? ➢ What is the role of Ethical Hacking? ➢ Write some software names for Ethical Hacking? Search more about Ethical Hacking with the help of internet, newspaper and computer magazines. Make a PowerPoint presentation on the topic – Advantages of Ethical Hacking. Set a beautiful background. Apply nice formatting and animation effects on it.
6.	**Science**	**PHYSICS:** **Q1.**Differentiate between : (a)Concave and Convex mirror (b)Concave and Convex Lens (write at least 3 points each) **Q2.** Three mirrors, one plane, one concave and one convex are lying on the table. Identify them without touching them or using any other apparatus or device?

Q3. An object 1 cm high produces a real image 1.5 cm high, when placed at a distance of 15 cm from concave minor. Calculate the position of the image.

Q4.A concave mirror is used for image formation for different positions of an object. What inferences can be drawn about the following when an object is placed at a distance of 10 cm from the pole of a concave mirror of focal length 15 cm?

(i) Position of the image
(ii) Size of the image
(iii) Nature of the image
(iv) Draw a labelled ray diagram to justify your inferences.

Q5.A spherical mirror produces an image of magnification -1 on a screen placed at a distance of 50 cm from the mirror.

(i) Write the type of mirror.
(ii) Find the distance of the image from the object.
(iii) What is the focal length of the mirror?

Q6. An object is placed at a distance of 12 cm in front of a concave mirror of radius of curvature 30 cm. List four characteristics of the image formed by the mirror.

Q7. What is snell's law? What does it imply?

Q8. In an experiment with a rectangular glass slab, for an angle of incidence of 60° in air, angle of refraction is measured to be r_1. When the glass slab is replaced by a hollow slab filled with water, angle of refraction is measured to be r_2.Show that $r_2 > r_1$.Justify your answer.

Q9. Orange light of wavelength 6600 Å travelling in air gets refracted in water. If the speed of light in air is 3×10^8 m s^{-1} and refractive index of water is 4/3, find : (i) the frequency of light in air, (ii) the speed of light in water and (iii) the wavelength of light in water.

Q10. During refraction of light , which of the following quantities does not change and why? Wavelength, frequency, time period, amplitude, speed, and direction.

Q12. State the reason of refraction of light.

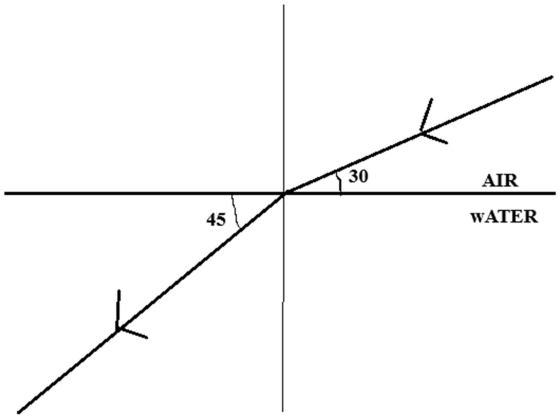
Q13. Name two factors on which the refractive index of a medium depends? State how does it depend on the factors stated by you.

Q14. State the difference between mass density and optical density. Also write the exception where mass density between two liquids is more but their optical densities are reversed.

Q15. The diagram alongside shows the refraction of a ray of light from air to a liquid .

(a)Write the values of (i) angle of incidence (ii) angle of refraction .

(b)use Snell's law to find the refraction index liquid with respect to air.



Q16. A pencil when dipped in water in a glass tumbler appears to be bent at the interface of air and water. Will the pencil appear to be bent to the same extent, if instead of water we use liquids like, kerosene or turpentine. Support your answer with reason.

Q17. Refractive index of diamond with respect to glass is 1.6 and absolute refractive index of glass is 1.5. Find out the absolute refractive index of diamond.

Q18. Draw ray diagrams showing the image formation by a concave mirror when an object is placed
(i) between pole and focus of the mirror
(ii) between focus and centre of curvature of the mirror
(iii) at centre of curvature of the mirror
(iv) a little beyond centre of curvature of the mirror
(v) at infinity

CHEMISTRY:

Q1.List four observations that help us to determine whether a chemical reaction has taken place.

Q2. What is observed when carbon dioxide gas is passed through lime water.
(i) For a short duration
(ii) For long duration?
Also, write the chemical equations for the reaction involved.

Q3. How would you distinguish between baking powder and washing soda by heating?

Q4.A white solid when dropped in water produces a hissing sound. What is the name of solid formed? Give the chemical reaction for the above. Name the product formed.

Q5.Identify the type of reactions taking place in each of the following cases and write the balanced chemical equation for the reactions.

(i)Zinc reacts with silver nitrate to produce zinc nitrate and silver.
(ii)Nitrogen gas is treated with hydrogen gas in the presence of a catalyst at 773K to form ammonia gas.

Q6.(i) A solution of potassium chloride when mixed with silver nitrate solution, an insoluble white substance is formed. Write the chemical reaction involved and also mention the type of the chemical reaction.

(ii) Ferrous sulphate when heated, decomposes with the evolution of a gas having a characteristic odour of burning sulphur. Write the chemical reaction involved and identify the type of reaction.

Q7.(i) Can a displacement reaction be a redox reaction? Explain with the help of an example?
(ii) Identify the substances that are oxidised and the substances that are reduced in the following reactions.

Q8. Why do we store silver chloride in dark coloured bottles? Explain in brief.

Q9. Define a combination reaction. Give one example of a combination reaction which is also exothermic.

Q10. Lead nitrate solution is added to a test tube containing potassium iodide solution.
(i) Write the name and colour of the compound precipitated.
(ii) Write the balanced chemical equation for the reaction involved.
(iii) Name the type of this reaction justifying your answer.

Q11. With the help of an example explain what happens when a base reacts with a non- metallic oxide. What do you infer about the nature of non-metal oxide?

Q12. You are given two solutions A and B. The pH of solution A is 6 and pH of solution B is 8.
(i) Which solution is acidic and which is basic?
(ii) Which solution has more H^+ ion concentration?

Q13. When electricity is passed through a common salt solution, sodium hydroxide is produced along with the liberation of two gases 'X' and Y. The gas 'X' burns with a pop sound whereas Y is used for disinfecting drinking water.
(i) Identify X and Y.
(ii) Give the chemical equation for the reaction stated above.
(iii) State the reaction of Y with dry slaked lime.

Q14. Explain, why is hydrochloric acid a strong acid and acetic acid, a weak acid?

Q15. Solve all exercise questions of chapter two of NCERT**.**
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BIOLOGY:

Q1.(i) Why is there a difference in the rate of breathing between aquatic organisms and terrestrial organisms? Explain.

(ii) Draw a diagram of human respiratory system and label – pharynx, trachea, lungs, diaphragm and alveolar sac on it.

Q2.(i) State reasons for the following:

(a)Herbivores need a longer small intestine while carnivores have shorter small intestine.

(b)The lungs are designed in human beings to maximise the area for exchange of gases.

(ii)The rate of breathing in aquatic organisms is much faster than that seen in terrestrial organisms.

Q3. Draw a flow chart showing the three different pathways involved in the breakdown of glucose in different organisms. Name the respiratory pigment present in human beings. State the function of rings of cartilage present in our throat.

Q4.(i) Draw a diagram of human respiratory system and label: Trachea, Bronchi and Diaphragm.

(ii) Give reasons for the following:

(a) Lungs always contain residual volume.

(b) Nostrils are lined with mucus.

Q5. Write three types of blood vessels. Give one important feature of each.

Q6.(i)Write two water conducting tissues present in plants. How does water enter continuously into the root xylem?

(ii) Explain why plants have low energy needs as compared to animals.

Q7.Explain how the translocation of materials in phloem tissue in plants is achieved by utilising energy.

Q8. What do the following transport?

(i)Xylem

(ii)Phloem

(iii)Pulmonary vein

(iv)Vena cava

(v) Pulmonary artery

(vi)Aorta

Q9. Explain giving any three reasons the significance of transpiration in plants.

Q10. List in tabular form three differences between arteries and veins.

Q11.Give reasons:

(i)Ventricles have thicker muscular walls than atria.

(ii)Transport system in plants is slow.

		(iii)Circulation of blood in aquatic vertebrates differs from that in terrestrial vertebrates. (iv)During the daytime, water and minerals travel faster through xylem as compared to the night. (v)Veins have valves whereas arteries do not. **Q12.**(i) "Blood circulation in fishes is different from the blood circulation in human beings". Justify the statement. (ii) Describe "blood circulation" in human beings. **Q13**.(i) Mention any two components of blood. (ii) Trace the movement of oxygenated blood in the body. (iii) Write the function of valves present in between atria and ventricles. (iv) Write one structural difference between the composition of artery and veins.
7.	**Social science**	**1.** Every student must undertake any one project out of three - Consumer Awareness **OR** Social Issues **OR** Sustainable Development Please use the project paper of 20 pages to prepare a project. Objectives: The objective of the project work is to help students gain an insight and pragmatic understanding of the theme and see all the Social Science disciplines from an interdisciplinary perspective. **2.** Do map work from History and Geography (given syllabus).