पीएम श्री केंद्रीय विद्यालय, टीकमगढ़

शरदकालीन अवकाश गृहकार्य – सत्र 2026–27

कक्षा: 11वीं विषय: हिंदी (आधार)

निर्देश: गृहकार्य स्वच्छ एवं सुंदर लिखावट में हिंदी की कॉपी में पूर्ण करें।

1. आरोह भाग–1 (गद्य एवं काव्य खंड)

1. अब तक पढ़ाए गए गद्य खंड के प्रत्येक पाठ का सारांश अपने शब्दों में लिखिए।
2. पढ़ाए गए एक गद्य पाठ और एक काव्य पाठ से पाँच-पाँच महत्त्वपूर्ण प्रश्नोत्तर तैयार कीजिए।

2. वितान भाग–1

1. अब तक पढ़ाए गए प्रत्येक पाठ का सारांश लिखिए।
2. किसी एक पाठ के आधार पर प्रमुख पात्रों की विशेषताएँ लिखिए।

अभिव्यक्ति और माध्यम

1. जनसंचार की परिभाषा एवं उसके प्रमुख माध्यमों का वर्णन कीजिए।
2. पत्रकारिता के प्रमुख प्रकारों को उदाहरण सहित समझाइए।
3. समाचार लेखन की विशेषताएँ लिखिए।
4. रचनात्मक लेखन और सामान्य लेखन में अंतर स्पष्ट कीजिए।

4. लेखन-कौशल

1. अपने विद्यालय के प्राचार्य को पुस्तकालय में हिंदी की नई पुस्तकें उपलब्ध कराने हेतु औपचारिक पत्र लिखिए।
2. अपने क्षेत्र में बढ़ते प्रदूषण की समस्या पर समाचार-रिपोर्ट तैयार कीजिए।

6. रचनात्मक एवं परियोजना कार्य

किसी एक विषय पर 10 पृष्ठों की परियोजना तैयार कीजिए।

- हिंदी भाषा और कृत्रिम बुद्धिमत्ता
- हिंदी साहित्य में कबीर का योगदान
- भारतीय संस्कृति के संरक्षण में हिंदी की भूमिका
- डिजिटल युग में हिंदी का विकास

परियोजना में आवरण पृष्ठ, उद्देश्य, विषय-वस्तु, चित्र/उदाहरण, निष्कर्ष और संदर्भ अवश्य शामिल करें।

PM SHRI KENDRIYA VIDYALAYA TIKAMGARH

CLASS – 11 (2026-27)

Autumn Break Homework

1	Write the following **8 - Experiments** in your Physics practical copy (Note – Reading/Observation will be done in Laboratory, so leave observation table of Exp4,5 6,7,8 blank) **Section A** 1. To measure the length , width and height of a given glass slab using Vernier Callipers and hence find its volume. 2. To measure diameter of a given wire using screw gauge. 3. To determine radius of curvature of a given spherical surface by a spherometer. 4. To find the weight of a given body using parallelogram law of vectors. **Section B** 5. To find the force constant of a helical spring by plotting a graph between load and extension. 6. To determine the coefficient of viscosity of a given viscous liquid by measuring terminal velocity of a given spherical body. 7. To study the relationship between the temperature of a hot body and time by plotting a cooling curve. 8. To find the speed of sound in air at room temperature using a resonance tube by two resonance positions.
2	Write the following **6 – Activities** in another Physics Practical copy. **Section A** 1. To make a paper scale of given least count, e.g., 0.2cm, 0.5 cm. 2. To determine mass of a given body using a metre scale by principle of moments. 3. To measure the force of limiting friction for rolling of a roller on a horizontal plane. **Section B** 4. To study the effect of detergent on surface tension of water by observing capillary rise. 5. To study the factors affecting the rate of loss of heat of a liquid. 6. To study the effect of load on depression of a suitably clamped metre scale loaded at (i) its end (ii) in the middle.

<table>
<tr><td>3</td><td>Prepare a project consist of Project file and Project model (working) based on any topic from your Syllabus:

<table>
<tr><td>Suggestive Topics
<table><tr><td>Newton’s Laws of Motion</td></tr><tr><td>Conservation of Energy</td></tr><tr><td>Moment of Inertia</td></tr><tr><td>Types of collision</td></tr><tr><td>Conservation of angular momentum etc</td></tr></table></td><td>Project File Format
<table><tr><td>Topic</td></tr><tr><td>Introduction</td></tr><tr><td>Scientific Principle involved</td></tr><tr><td>Diagram</td></tr><tr><td>Material Required</td></tr><tr><td>Construction and working</td></tr><tr><td>Advantages</td></tr></table></td></tr>
</table></td></tr>
<tr><td>3</td><td>Write all the solved example of Chapter 1 to 8 in a separate Home work copy.

Ensure to complete CW copy with all exercise questions from Chapter 1 to 8</td></tr>
<tr><td>4</td><td>Describe the following topics on a chart paper with proper diagram.

Roll no- 1 to 5 – examples of circular motion (vehicle on a level circular road).

Roll no- 6 to 10 – examples of circular motion (vehicle on a banked road).

Roll no- 11 to 15 – Static and kinetic friction, laws of friction

Roll no- 16 to 20 – law of conservation of angular momentum and its applications.

Roll no- 21 to 25- values of moments of inertia for simple geometrical objects (no derivation).

Roll no- 26 to 30- Kepler's laws of planetary motion</td></tr>
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4. लेखन-कौशल

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किसी एक विषय पर 10 पृष्ठों की परियोजना तैयार कीजिए।

- हिंदी भाषा और कृत्रिम बुद्धिमत्ता
- हिंदी साहित्य में कबीर का योगदान
- भारतीय संस्कृति के संरक्षण में हिंदी की भूमिका
- डिजिटल युग में हिंदी का विकास

परियोजना में आवरण पृष्ठ, उद्देश्य, विषय-वस्तु, चित्र/उदाहरण, निष्कर्ष और संदर्भ अवश्य शामिल करें।

📣 **HOLIDAY HOMEWORK - Class 11th**

Subject: Economics

1. Project File: Topic - **DEMAND** - Complete your project file.

2. Chapter: Production Function - Complete notes + Question-Answers in notebook and LEARN the chapter also.

Both work will be checked strictly after holidays.

- Priyanka Ma'am

हिंदी में:

कक्षा 11वीं - छुट्टियों का गृहकार्य (अर्थशास्त्र)

1. प्रोजेक्ट फाइल - विषय: मांग (Demand)
2. अध्याय: उत्पादन फलन - नोट्स + प्रश्न-उत्तर लिखो और याद करो।

PM SHRI KV TIKAMGARH (2026-27)

HOMEWORK AUTUMN BREAK

CLASS XI SUBJECT – CHEMISTRY

Q1Arrange the electrons represented by the following sets of quantem number in decreasing order of energy.
n = 4, l = 0, m = 0, s = +1/2 n = 3, l = 1, m = 1, s = -1/2 n = 3, l = 2, m = 0, s = +1/2

Q 2. Calculate the total number of required angular nodes and radial nodes present in the 3p orbital.

Q3 .Chlorophyll present in green leaves of the plants absorbs light at 4.620 × 1014 Hz. Calculate the wavelength of the radiation in nanometers. Which part of the electromagnetic spectrum does it belong to?

Q4. The electronic configuration of valence shell of Cu is $3d^{10}4s^1$ and not $3d^9 4s^2$. How is this configuration explained?

Q5. Why the electron gain enthalpy of fluorine is less negative than that of chlorine?

Q6. What is IUPAC name of element having atomic number 107.

Q7.If 700 mL of H_2 at STP contains x molecules of it, how many molecules of O_2 are present in 700 mL of it at the same temperature and pressure?

Q8. Nitrogen combines with dihydrogen according to the reaction. $N_2(g) + 3H_2(g) \rightleftharpoons 2NH_3(g)$ What is the ratio in their volumes under similar conditions of temperature and pressure?

Q9. We don't see a car moving as a wave on the road and why?

Q10. Which of the following have largest and the shortest ionic radii? - O^{2-}, F^-, Na^+ and Mg^{2+}

Q11. Which among the following has the largest dipole moment? (a) NH_3 (b) H_2O (c) HI (d) SO_3

Q12. Which of the following pairs of molecules will have permanent dipole moment for both members? (a) NO_2 and CO_2 (b) NO_2 and O_3 (c) SiF_4 and CO_2 (d) SiF_4 and NO_2

Q13. Which out of NH_3 and NF_3 has higher dipole moment and why?

Q14. What is meant by hybridisation of atomic orbitals? Describe the shapes of sp, sp^2, sp^3 hybrid orbitals.

Q15. Compare the relative stability of the following species and indicate their magnetic properties: O_2, O_2^- (Superoxide),O_2^{2-} (peroxide)

Q16. Explain why O-O bond lengths in ozone molecule are equal?

Q17. How many sigma – and - bond are there in a molecule of C2H4 (ethene)?

Q18. What are IUPAC sign conventions for Heat and work?

Q19. What is Heat capacity at constant pressure? Write formula and unit also.

Q20. Why does entropy increase on mixing of two gases?

Q21. CASE STYDY BASED QUESTION - 1

We can measure the transfer of heat from one system to another which cause change in temperature. The magnitude of change in temperature depends upon heat capacity of the substance. The enthalpy change of reaction remains the same irrespective of number ofsteps is Hess's law.It helps to calculate enthalpy of formation, combustion and other enthalpy changes. Enthalpy change can also be calculated by using bond enthalpies. First law gives law of conservation of energy but does not give direction of reaction. Second law states, entropy of universe is continuously increasing due to spontaneous processes taking place in it. ΔΔH and ΔΔS (entropy change) cannot decide spontaneity of process. We need ΔΔG (free energy change) which is -ve for spontaneous, +ve for non-spontaneous. ΔΔG = 0 for process in equilibrium. ΔΔG is related to equilibrium constant. If

$\Delta\Delta G$ = -ve, 'K' is +ve and vice versa. Third law of thermodynamics states the entropy of perfectly crystalline substance is zero at zero kelvin.
(a) We can determine $\Delta H_{lattice}$ with the help of cycle. Name the cycle.
(b) How can we calculate enthalpy of solution?
(c) What is molar heat capacity of water in equilibrium with ice at constant pressure?
(d) Standard entropy of X_2 , Y_2 and XY_3 are 60, 40 and 50 JK^{-1} mol^{-1} respectively. For the reaction $1/2X_2 + 3/2Y_2 \longrightarrow XY_3$, $\Delta H = -30$ KJ to be at what temperature, process will be at equilibrium.
(f) What are sign of ΔH and ΔS for process to be always spontaneous?

Q22. ASSERTION AND REASON TYPE QUESTIONS
Note : In the following questions a statement of assertion followed by a statement of reason is given. Choose the correct answer out of the following choices.
(a) Assertion and reason both are true, reason is correct explanation of assertion.
(b) Assertion and reason both are true but reason is not the correct explanation of assertion.
(c) Assertion is true, reason is false.
(d) Assertion is false, reason is true
1. Assertion : When two hydrogen atoms come together to form bond their energies first decreases then increases.
Reason : In the beginning in hydrogen atoms the total attractive forces is less than the total repulsive forces but after a certain distance the repulsive forces become higher than attractive forces.
2. Assertion: Pi bond is weaker than sigma bond
Reason: The pi bond is formed by larger intermerging of the lobes.
3. Assertion: Hybrid orbitals are formed by those orbitals which have unequal energies. Reason: The bond formed by hybrid orbitals is stronger than unhybrdised orbitals.
4. Assertion: The hybridized orbitals are directional in nature therefore indicates the geometry of the molecules.
Reason:- Geometry and shape of the molecules are the same for all types of molecules
5. Assertion: The bonding molecular orbital has lower energy and hence greater stability than the corresponding antibonding molecular orbital.
Reason: The bonding orbital is formed by the constructive interference of the wave function.
Q23. CASE STUDY BASED QUESTION
Molecular Orbital Theory
Molecular Orbital Theory is a chemical bonding theory that states that individual atoms combine together to form molecular orbitals. Due to the arrangement in Molecular Orbital Theory, electrons related to different nuclei are found in different atomic orbitals. In molecular orbital theory, the electrons in a molecule are not assigned to individual chemical bonds between the atoms. Rather, they are treated as moving under the influence of the atomic nuclei in the entire molecule.
- • The theory was developed by F. Hund and R. S. Mulliken at the beginning of the 20th century.
- • It aimed to describe the structure and properties of different molecules.
- • Molecular orbital theory turned out to be more powerful than the valence-bond theory.
- • The orbitals described by molecular orbital theory reflect the geometries of the molecules to which it is applied.

1. Which of the following about molecular orbital is incorrect?

a) Molecular orbitals are forms by the linear combination of atomic orbitals
b) It helps us to find the magnetic character of the species
c) The energies of $\pi 2px$ and $\pi 2py$ molecular orbitals are same
d) It gives information about the geometry of the molecules.

2. Considering x-axis as the internuclear axis which out of the following will form a sigma bond?
(a) 1s and 2s
(b) 1s and 2px
(c) 2py and 2pz
(d) 1s and 2s
3. How will you prove that C2 molecule has 2 bonds and both are pi bonds?

Q24.MULTIPLE CHOICE QUESTIONS OF THERMODYNAMICS
1.A well stoppered thermos flask contains some ice cubes. This is an example of
(a) Closed system (b) Open system
(c) Isolated system (d) Non thermodynamics system
2. For the reaction $C(s) + O_2(g) \rightarrow CO_2(g)$
(a) $\Delta H > \Delta U$ (b) $\Delta H < \Delta U$
(c) $\Delta H = \Delta U$ (d) None of these
3. For an ideal gas, CV and CP are related as :
(a) $C_V - C_P = R$ (b) $C_V + C_P = R$
(c) $C_P - C_V = RT$ (d) $C_P - C_V = R$
4. The least random state of the water system is:
(a) ice (b) liquid water
(c) steam (d) randomness is same
5. Considering entropy(S) thermodynamic parameters the criteria for the spontaneity of any process is:
(a) ΔS system + ΔS surroundings > 0 (b) ΔS system – ΔS surroundings < 0
(c) ΔS system > 0 (d) ΔS surroundings > 0
6. The enthalpy change in a reaction does not depend upon
(a) the state of reactions and products
(b) the nature of the reactants and products
(c) different intermediate steps in the reaction
(d) initial and final enthalpy of the reaction
7. The correct relationship between free energy change in a reaction and the corresponding equilibrium constant K_C is
(a) $-\Delta G = RT \ln K_C$ (b) $\Delta G^0 = RT \ln K_C$
(c) $-\Delta G^0 = RT \ln K_C$ (d) $\Delta G = RT \ln K_C$
8. What is the entropy change (in $JK^{-1} mol^{-1}$) when 1 mole of ice is converted into water at 0℃? (The enthalpy change for the conversion of ice to liquid water is 6.0 $kJ\ mol^{-1}$ at 0℃)
(a) 20.13 (b) 2.013
(c) 2.198 (d) 21.98
9. If liquids A and B form an ideal solution
(a) the entropy of mixing is zero
(b) the free energy of mixing is zero
(c) the free energy as well as the entropy of mixing are zero
(d) the enthalpy of mixing is zero

Q25. CASE BASED QUESTION

The periodic table of the elements

The periodic table, also known as the periodic table of the elements, arranges the chemical elements into rows ("periods") and columns ("groups"). It is an organizing icon of chemistry and is widely used in physics and other sciences. It is a depiction of the periodic law, which says that when the elements are arranged in order of their atomic numbers an approximate recurrence of their properties is evident. The table is divided into four roughly rectangular areas called blocks. Elements in the same group tend to show similar chemical characteristics. Vertical, horizontal and diagonal trends characterize the periodic table. Metallic character increases going down a group and decreases from left to right across a period. Nonmetallic character increases going from the bottom left of the periodic table to the top right. Elements with similar chemical properties generally fall into the same group in the periodic table, although in the f-block, and to some respect in the d-block, the elements in the same period tend to have similar properties, as well. Thus, it is relatively easy to predict the chemical properties of an element if one knows the properties of the elements around it.

Answer the following questions:

(a) Why do Li and Mg show similarity in their properties ?

(b) In terms of the period and group, where would you locate the element with Z =114?

(c) First member of every group shows anomalous behaviour .Why?

P M SHRI KENDRIYA VIDYALYA TIKAMGARH, BHOPAL REGION

Class XI MATHEMATICS

TIME: 1.5 hours PT-1 EXAM 2025-26 MAX.MARKS: 40

General Instructions:

1. This Question Paper has 5 Sections A, B, C, D and E.
2. Section A has 10 MCQs carrying 1 mark each
3. Section B has 4 questions carrying 02 marks each.
4. Section C has 3 questions carrying 03 marks each.
5. Section D has 1 question carrying 05 marks each.
6. Section E has 2 questions carrying 04 marks each.

QNO.	**Section A consists of 10 questions of 1 mark each.**	MARKS
1	Two finite sets have m and n elements. The number of subsets of the first set is 112 more than that of second set. The values of m and n are respectively: (a) 4, 7 (b) 7, 4 (c) 4, 4 (d) 7, 7	1
2	For disjoint sets A and B, n(A) = 3, n(B) = 5, then n(A ∩ B) is (a) 0 (b) 3 (c) 5 (d) 8	1
3	Range of the function f (x) = $\frac{x}{x+2}$ is (a) R (b) R – {2} (c) R – {1} (d) R – {–2}	1
4	Domain of $\sqrt{a^2 - x^2}$ (a > 0) is (a) (–a, a) (b) [–a, a] (c) [0, a] (d) (–a, 0]	1
5	The value of sin (45° + θ) – cos (45° – θ) is (a) 2 cos θ (b) 2 sin θ (c) 1 (d) 0	1
6	Angle formed by the large hand of a clock in 20 minutes is (a) $\frac{\pi}{6}$ (b) $\frac{\pi}{3}$ (c) $\frac{3\pi}{4}$ (d) $\frac{2\pi}{3}$	1
7	If –3x + 17 < –13, then (a) x ∈ (10, ∞) (b) x ∈ [10, ∞) (c) x ∈ (– ∞, 10] (d) x ∈ [–10, 10)	1
8	If 2x – 1 < 6 + x, 4 – 3x ≤ 1, then x∈: (a) [1, 7] (b) [-1, 7] (c) [1, 7) (d) (1, 7)	1
9	DIRECTION: In the question a statement of assertion (A) is followed by a statement of Reason (R). Choose the correct option **Assertion (A):** Let A = {1, 2} and B = {3, 4}. Then, number of relations from A to B is 16. **Reason (R):** If n(A) = p and n(B) = q, then number of relations is 2^{pq}. (a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A) (b) Both assertion (A) and reason (R) are true and reason (R) is not the correct explanation of assertion (A) (c) Assertion (A) is true but reason (R) is false.	1

	(d) Assertion (A) is false but reason (R) is true.	
10	DIRECTION: In the question a statement of assertion (A) is followed by a statement of Reason (R). Choose the correct option **Assertion (A):** If $\sqrt{a+ib}$ = x + iy, then $\sqrt{a-ib}$ = x – iy. **Reason (R):** A complex number z is said to be purely imaginary, if Re(z) = 0. (a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A) (b) Both assertion (A) and reason (R) are true and reason (R) is not the correct explanation of assertion (A) (c) Assertion (A) is true but reason (R) is false. (d) Assertion (A) is false but reason (R) is true.	1

	Section B consists of 4 questions of 2 marks each	
11	Find all pairs of consecutive odd positive integers both of which are smaller than 10 such that their sum is more than 11.	2
12	If $\sin x = \frac{3}{5}$, $\cos y = \frac{-12}{13}$ and x, y both lie in the second quadrant, find the values of $\sin(x+y)$	2
13	If $(x+iy)^3 = u+iv$, then show that $\frac{u}{x}+\frac{v}{y}=4(x^2-y^2)$	2
14	Find the domain of each of the following functions given by : $f(x)=\frac{x^3-x+3}{x^2-1}$	2
	Section C consists of 3 questions of 3 marks each	
15	How many litres of water will have to be added to 1125 litres of the 45% solution of acid so that the resulting mixture will contain more than 25% but less than 30% acid content?	3
16	Find the domain and range of the real function $f(x) = \sqrt{9-x^2}$	3
17	If α and β are different complex numbers with $\lvert\beta\rvert = 1$, then find $\left\lvert\frac{\beta-\alpha}{1-\bar{\alpha}\beta}\right\rvert$.	3
	Section D consists of 1 question of 5 marks each	
18	If $\tan x=\frac{3}{4}, \pi < x < \frac{3\pi}{2}$, find the value of $\sin\frac{x}{2}$, $\cos\frac{x}{2}$ and $\tan\frac{x}{2}$. Or Prove that $\cos 6x = 32\cos^6 x - 48\cos^4 x + 18\cos^2 x - 1$	5
19	**Section E has 2 questions carrying 04 marks each**	

	A conjugate of a complex number is another complex number that has the same real part as the original complex number, and the imaginary part has the same magnitude but opposite sign. If we multiply a complex number with its conjugate, we get a real number. A complex number z is purely real if and only if $\bar{z} = z$ and is purely imaginary if and only if $\bar{z} = -z$. Based on the above information, answer the following questions. (a) Find the conjugate of the following : $(2 + i)^2$ (1) (b) Find the multiplicative inverse of $(4 - 3i)$. (1) (c) Express $(3 + 4i)(6 - 3i)(5 + i)$ in the form $(a + ib)$. (2)	
20	In class XI of one International school in Hyderabad, there are 200 students out of which 80 have taken Mathematics, 120 have taken Economics and 90 have taken Physical Education. If 50 have taken Mathematics and Economics, 60 have taken Economics and Physical Education, 40 have taken Mathematics and Economics.  If 20 students have taken all three subjects then on the basis of above information answer the following: (i) Find the number of students who have taken at least one of the subjects. (ii) Find the number of students who have taken at most one of the subjects. (iii) Find the number of students who has taken none of the subject. (iv) Find the number of students who have taken exactly one subject.	

P M SHRI KENDRIYA VIDYALYA TIKAMGARH, BHOPAL REGION

Class XI MATHEMATICS

TIME: 1.5 hours PT-2 EXAM 2025-26 MAX.MARKS: 40

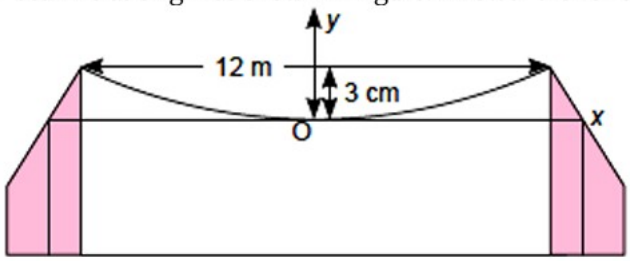
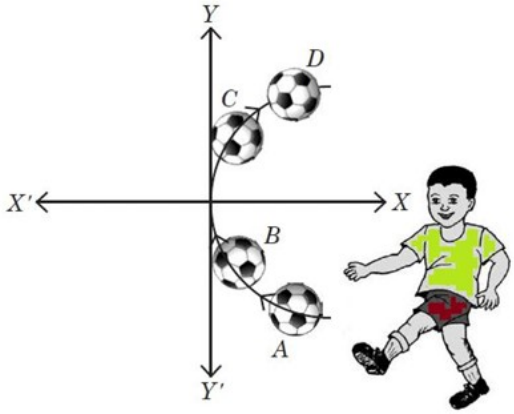
General Instructions:

1. This Question Paper has 5 Sections A, B, C, D and E.
2. Section A has 10 MCQs carrying 1 mark each
3. Section B has 4 questions carrying 02 marks each.
4. Section C has 3 questions carrying 03 marks each.
5. Section D has 1 question carrying 05 marks each.
6. Section E has 2 questions carrying 04 marks each.

QNO.	**Section A consists of 10 questions of 1 mark each.**	MARKS
1	The equation of the circle in the first quadrant touching each coordinate axis at a distance of one unit from the origin is (a) $x^2 + y^2 - 2x - 2y + 1 = 0$ (b) $x^2 + y^2 - 2x - 2y - 1 = 0$ (c) $x^2 + y^2 - 2x - 2y = 0$ (d) $x^2 + y^2 - 2x + 2y - 1 = 0$	1
2	If the parabola $y^2 = 4ax$ passes through the point P(3, 2), then the length of its latus rectum is (a) 1/3 (b) 2/3 (c) 4/3 (d) 4	1
3	If the distance between the points (a, 0, 1) and (0, 1, 2) is $\sqrt{27}$, then the value of a is (a) 5 (b) ± 5 (c) − 5 (d) None of these	1
4	L is the foot of the perpendicular drawn from a point P (6, 7, 8) on the XY-plane, then the coordinates of point L are (a) (6, 0, 0) (b) (6, 7, 0) (c) (6, 0, 8) (d) None of these	1
5	$\lim_{x \to \frac{\pi}{4}} \frac{\sec^2 x - 2}{\tan x - 1}$ is equal to	1
6	Find the equation of the parabola with vertex at (0, 0) and focus at (0, 2). (a) $x^2 = 8y$ (b) $x^2 = 2y$ (c) $y^2 = 4x$ (d) $y^2 = 8x$	1
7	The length of the latus rectum of the ellipse $9x^2 + 16y^2 = 144$ is (a) 4 (b) 11/4 (c) 7/2 (d) 9/2	1
8	The value of $\lim_{x \to 2} \frac{x^3 - 8}{x - 2}$ is (a) 10 (b) 11 (c) 12 (d) 13	1
9	DIRECTION: In the question a statement of assertion (A) is followed by a statement of Reason (R). Choose the correct option **Assertion (A):** If major axis is on the y-axis and ellipse passes through the points (3,2) and (1,6), then the equation of ellipse is $\frac{x^2}{10} + \frac{y^2}{40} = 1$. **Reason (R):** $\frac{x^2}{b^2} + \frac{y^2}{a^2} = 1$ is an equation of ellipse if major axis is along y-axis. (a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A) (b) Both assertion (A) and reason (R) are true and reason (R) is not the correct explanation of assertion (A) (c) Assertion (A) is true but reason (R) is false.	1

	(d) Assertion (A) is false but reason (R) is true.	
10	DIRECTION: In the question a statement of assertion (A) is followed by a statement of Reason (R). Choose the correct option **Assertion (A):** The distance between the points $(1 + \sqrt{11}, 0, 0)$ and $(1, -2, 3)$ is $2\sqrt{6}$ units. **Reason (R):** Distance between any two points $A(x_1, y_1, z_1)$ and $B(x_2, y_2, z_2)$ is, $\|AB\| = \sqrt{(x_2 + x_1)^2 + (y_2 + y_1)^2 + (z_2 + z_1)^2}$ (a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A) (b) Both assertion (A) and reason (R) are true and reason (R) is not the correct explanation of assertion (A) (c) Assertion (A) is true but reason (R) is false. (d) Assertion (A) is false but reason (R) is true.	1

	Section B consists of 4 questions of 2 marks each	
11	Find the focus, vertex and directrix of the following parabola : $x^2 = -16y$	2
12	Find the coordinates of the point which divides the join of P(2, –1, 4) and Q(4, 3, 2) in the ratio 2 : 3 externally.	2
13	If $y = \frac{\cos x}{1 + \sin x}$, then find $\frac{dy}{dx}$.	2
14	Find the equation of the ellipse whose axes are along the coordinate axes, vertices are (± 5, 0) and foci at (± 4, 0).	2
	Section C consists of 3 questions of 3 marks each	
15	Show that the points A(1, 2, 3), B(–1, –2, – 1), C(2, 3, 2) and D(4, 7, 6) are the vertices of a parallelogram ABCD, but it is not a rectangle.	3
16	Evaluate: (i) $\lim_{x \to 0} \frac{(\sqrt{1+3x}) - (\sqrt{1-3x})}{x}$ (ii) $\lim_{x \to 0} \frac{\sin 2x + \sin 6x}{\sin 5x - \sin 3x}$	3
17	Find the derivative of Sec x by first principal method	3
	Section D consists of 1 question of 5 marks each	
18	Find the equation of circle which passes through (2, –2) and (3, 4) and whose centre lies on the line $x + y = 2$. Or Find the derivative of (i) $\frac{x^5 - \cos x}{\sin x}$ (ii) $\frac{x + \cos x}{\tan x}$	5
19	**Section E has 2 questions carrying 04 marks each**	

	A beam is supported at its ends by supports which are 12 m apart. Since the load is concentrated at its centre, there is a deflection of 3 cm at the centre and defected beam is in the shape of parabola. Now considering the centre of beam is at origin as shown in figure. Answer the following:  (i) Write the form of the equation of parabola. (1) (ii) Find the focus of parabola. (1) (iii) Find the length of latus rectum of parabola. (1) (iv) How far from the centre is the deflection 1 cm? (1)	
20	Aditya was playing a football match. When he kicked the football, the path formed by the football from ground level is parabolic, which is shown in the following graph. Consider the coordinates of point A as (3, –2).  On the bases of the information answer the following. (i) Find the equation of path formed by the football. (1) (ii) Find the equation of directrix of path formed by football. (1) (iii) Find the extremities of latus rectum of given curve. (1) (iv) Find the length of latus rectum of given curve. (1)	

PM SHRI KENDRIYA VIDYALAYA, TIKAMGARH
HOLIDAY HOMEWORK (AUTUMN BREAK)

CLASS -VII 2026-27

1.) Prepare the project/assignment topics:

Assignment topics:(page 8 to 10)

1. Origin of the universe (theory and hypothesis).
2. Evolution of the earth
3. continetal Drift theory.
4. plate tectonics theory.
5. Landform created by running water .
6. Landform created by wind.
7. Landform created by Glacier.
8. Ganga drainage system
9. Indus drainage system
10. Panninsular drainage system
11.Physiography of india.

Roll no. 1 ,12, 23 topic 1 (separately)
Roll no. 2 ,13 topic 2
And so on up to
Roll no. 11,22 topic 11

2.Learn chapter climate and atmosphere and composition and learn and write the question answer.

3. Map drainage system of Himalayan and peninsular river

PM SHRI KENDRIYA VIDYALAYA, TIKAMGARH

Autumn Break Holidays Homework

Class: XI

Subject: History

Session: 2026–27

Project Work

Students have to prepare a project file on any ONE of the following topics.

Topic 1: An Empire Across Three Continents – Mesopotamian Civilisation

Include the following points:

Introduction and geographical location.

Development of cities and urban life.

Writing system and cuneiform script.

Temples, ziggurats and religious beliefs.

Trade, agriculture and occupations.

Contributions of Mesopotamian civilisation.

Conclusion with pictures and map.

Topic 2: The Three Orders – Genghis Khan and the Mongol Empire

Include the following points:

Introduction to the Mongols.

Early life of Genghis Khan.

Unification of the Mongol tribes.

Mongol military organisation.

Expansion of the Mongol Empire.

Administration, Yasa and the Ulus system.

Impact of Mongol rule on trade and society.

Conclusion with pictures and a map.

General Instructions

Prepare the project on A4-size sheets in a file.

PM SHRI KENDRIYA VIDYALAYA TIKAMGARH

AUTUMN BREAK HOMEWORK (2026-27)

CLASS 11– COMPUTER SCIENCE (083)

Q1. Input a welcome message and display it.

Q2. Input two numbers and display the larger / smaller number.

Q3. Input three numbers and display the largest / smallest number.

Q4. Generate the following patterns using nested loop.

a) *

**

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*****

b) 1 2 3 4 5

1 2 3 4

1 2 3

1 2

1

c) A

AB

ABC

ABCD

ABCDE

Q5. Write a program to input the value of x and n and print the sum of the following series:

a) 1+x+x2+x3+x4+. .....xn

b) 1-x+x2-x3+x4 .....xn

Q6. Determine whether a number is a perfect number, an armstrong number or a palindrome

Q7. Input a number and check if the number is a prime or composite number

Q8. Display the terms of a Fibonacci series.

Q9. Compute the greatest common divisor and least common multiple of two integers.

Q10. Count and display the number of vowels, consonants, uppercase, lowercase characters in string.

Q11. Write a program in python to find the area of Circle using If Conditions.

Q12. Write a program to take input from the user and print reverse order.

Q13. Write a program to take two input from the user and concatenate the strings.

Q14. Write a Python script to accept a four-digit year from the user and determine whether it is a leap year.

Q15. Accept a line of text and count the exact occurrences of uppercase letters, lowercase letters, digits, and special characters.

PM SHRI KENDRIYA VIDYALAYA, TIKAMGARH

HOLIDAY HOMEWORK (AUTUMN BREAK)

2026-27

Class: XI **Subject: English**

REVISION

Q1. Answer the following questions in 45-50 words each:

a) How is rain a blessing for the earth? Answer with reference to 'Voice of the Rain'.
b) How does Mrs. Fitzgerald show the family of Mrs. Pearson their place?
c) 'The Address' is a story of facing the unbearable truth of your life and finding peace with it, Elaborate.
d) The mystery of Tut deepens with the new discoveries of his mummy. Do you agree? Justify your answer.

Q2. You are Sahil Sagar studying in class XI. The school management has observed that the students commute to school by two wheelers. As all the students of the school are below eighteen years of age, they are not permitted by law to do so. You have been asked to sensitise the students about the same. Write a speech to be delivered in the morning assembly. (150 word)

Q3. Prepare a mind map of any ONE of the lessons of your textbooks.

Q4. Combine the two sentences to form one meaningful sentence

1. He was tired. He continued working.
2. She is very intelligent. She is also hardworking.
3. The boy was injured. He was taken to the hospital.
4. I finished my homework. I went out to play.
5. The weather was bad. We postponed the match.
6. He did not study well. He failed the exam.
7. The teacher entered the class. The students became silent.
8. She speaks softly. Everyone can hear her clearly.
9. The train was late. We missed the meeting.
10. The girl won the race. She was awarded a medal

P.M. SHRI KENDRIYA VIDYALAYA TIKAMGARH

AUTUMN BREAK HOLIDAY HOMEWORK

CLASS XI – YOGA (841)

Name: _____

Class & Section: _____ **Roll No.:** _____

GENERAL INSTRUCTIONS

1. Complete all ten topics neatly in your Yoga notebook or on A4-size sheets.
2. Write each topic in your own handwriting using clear headings and subheadings.
3. Paste a relevant photograph or labelled picture for every topic.
4. Write a suitable caption below each photograph/picture.
5. For Yogasanas, include the procedure, benefits and precautions wherever applicable.
6. Maintain proper margins and arrange the pages in the correct order.
7. Use reliable information and write in your own words.
8. Practise Yoga safely and within your comfort level. Stop if you feel pain, dizziness or discomfort.
9. Submit the completed homework on the first working day after the Autumn Break.
10. Revise the topics for classroom discussion after the break.

TOPICS

1. Meaning, Definition and Objectives of Yoga

Written work: Define Yoga. Explain its meaning, aims and major objectives.

Picture work: Paste a photograph showing a person practising Yoga or meditation.

[Paste photograph / picture here]

2. Major Schools of Yoga

Written work: Explain Jnana Yoga, Bhakti Yoga, Karma Yoga and Hatha Yoga. Give one key feature of each.

Picture work: Paste a picture representing any one school of Yoga.

[Paste photograph / picture here]

3. Rules and Regulations for Yoga Practitioners

Written work: Write at least eight rules to follow before, during and after Yoga practice.

Picture work: Paste a photograph showing a suitable Yoga practice environment.

[Paste photograph / picture here]

4. Sukshma Vyayama

Written work: Explain the meaning, purpose and benefits of Sukshma Vyayama. Describe any three practices.

Picture work: Paste pictures of three Sukshma Vyayama practices.

[Paste photograph / picture here]

5. Surya Namaskar

Written work: Write the sequence of Surya Namaskar, its benefits and important precautions.

Picture work: Paste a labelled picture/chart showing the steps of Surya Namaskar.

[Paste photograph / picture here]

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6. Yogasanas

Written work: Describe any five Yogasanas with procedure, benefits and precautions.

Picture work: Paste one photograph for each of the five asanas.

[Paste photograph / picture here]

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7. Patanjali Yoga Sutra

Written work: Write about Maharishi Patanjali and explain the eight limbs of Ashtanga Yoga.

Picture work: Paste a picture of the eight limbs of Yoga or a suitable illustration.

[Paste photograph / picture here]

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8. Bhagavad Gita and Yoga

Written work: Explain the teachings of the Bhagavad Gita related to Karma Yoga and balanced action.

Picture work: Paste a relevant picture of the Bhagavad Gita or Karma Yoga.

[Paste photograph / picture here]

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9. Hatha Pradipika

Written work: Write a short note on Hatha Pradipika, its author and its importance in Hatha Yoga.

Picture work: Paste a relevant picture of the text or a Hatha Yoga practice.

[Paste photograph / picture here]

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10. Gheranda Samhita

Written work: Write a short note on Gheranda Samhita and explain its importance in yogic practices.

Picture work: Paste a relevant picture of a traditional Yoga practice.

[Paste photograph / picture here]
