

O.P.JINDALSCHOOL,SAVITRINAGAR,TAMNAR

SESSION: 2026-2027

CLASS–XI

S.NO	SUBJECT	HOMEWORK
1.	ENGLISH	<p>Do all the tasks on A4 size sheets and submit in a well-organized manner, avoiding plastic folders. <i>Be creative, thoughtful, and sincere. Use this break to reflect, explore, and express!</i></p> <p>1. Reel to Real – Book-to-Movie Review</p> <ul style="list-style-type: none">➤ 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):➤ What changes did you notice?➤ What was better—book or film? Why? <p>Your personal takeaway</p> <p>2. Literature Poster Project Choose any one poem or prose from your syllabus. Create a literary poster that includes:</p> <ul style="list-style-type: none">• Key quote(s)• Main theme and symbols• Sketch or collage representing the essence• What makes this piece meaningful to you <p>3. Real Issues, Real Voices – Podcast Script</p> <ul style="list-style-type: none">• Choose a current social issue (bullying, screen addiction, climate action, etc.)• Write a script for a 3–4 min podcast where you present facts, share an opinion and suggest solutions. <p><i>Add an intro, outro, and one expert quote.</i></p>
2	MATHS	<p>1. Solve daily 5 questions in a separate notebook from the chapters given below from any reference book of class X:</p> <ul style="list-style-type: none">i) Quadratic Equationii) Trigonometryiii) Arithmetic progressioniv) Coordinate Geometryv) Statistics
3	BIOLOGY	<p>ANSWER THE FOLLOWING QUESTIONS.</p> <p>1. Who proposed the five kingdom classification?</p> <p>2. Name the five kingdoms.</p>

		<p>3. Give one example of Kingdom Monera.</p> <p>4. What are eukaryotes?</p> <p>5. Differentiate between prokaryotic and eukaryotic organisms.</p> <p>6. What are the main criteria used for classification?</p> <p>7. Describe Kingdom Monera in brief.</p> <p>8. What is the importance of classification?</p> <p>9. Differentiate between algae and fungi.</p> <p>10. Explain the five kingdom classification system.</p> <p>11. Describe the characteristics of Kingdom Protista.</p> <p>12. Explain the features of Kingdom Fungi with examples.</p> <p>13. Describe Kingdom Plantae and Animalia briefly.</p> <p>14. Compare Monera, Protista, and Fungi.</p> <p>15. Draw and label different types of bacteria.</p> <p>16. Draw structure of a typical bacterium.</p> <p>17. Draw diagram of an amoeba or paramecium.</p> <p>18. Why are viruses not included in the five kingdom classification?</p> <p>19. Why is Kingdom Protista called a connecting link?</p> <p>20. How does mode of nutrition help in classification?</p>
4	PHYSICS	<p>Instruction-All the questions written below is to be done in assignment physics copy.</p> <p>Q1. If frequency (F), velocity (v) and density (D) are considered as fundamental units. Find the dimensional formula for momentum.</p> <p>Q2. During a short interval of time the speed v in m/s of an automobile is given by $v = at^2 + bt^3$, where the time t is in seconds. Find the units of a and b.</p> <p>Q3. Find the significant figures of the number 6.0023 .</p> <p>Q4. Find the sum of 6.2g, 4.33g, 17.456g expressed in appropriate number of significant figures.</p> <p>Q5. State the principle of homogeneity of dimensions. Test the dimensional homogeneity of the following equation: $h = h_0 + v_0 + \frac{1}{2}gt^2$</p> <p>Q6. 5.74 g of a substance occupies 1.2 cm³. Express its density keeping significant figures in view.</p> <p>Q7. What are the limitations of dimensional analysis.</p> <p>Q8. Round off 15.65 upto 3 digits.</p> <p>Q9. Deduce the dimensional formula for universal gas constant. The velocity of sound waves 'v' through a medium may be assumed to depend on: (a) the density of the</p>

medium 'd' (b) The modulus of elasticity 'E'.

Q10. Distinguish between dimensional and non-dimensional constants.

Q11. Define dimensions. Find the dimensional formula of angular velocity and torque. A gas bubble, formed by an explosion under water, oscillates with a period T proportional to $p^{a}d^{b}E^{c}$, where p is the static pressure, d is the density of water and E is the total energy of the explosion. Find the values of a, b, c

Q12. In a particular system of units, a physical quantity can be expressed in terms of the physical quantity can be expressed in terms of the electric charge e , electron mass m_e , Planck's constant h , and Coulomb's constant $k = 1/\epsilon_0$, where ϵ_0 is the permittivity of vacuum. In terms of these physical constants, the dimension of the magnetic field is $[B] = [e]^{\alpha}[m_e]^{\beta}[h]^{\gamma}[k]^{\delta}$. Find the value of $\alpha + \beta + \gamma + \delta$.

Q13. Young's modulus of elasticity Y is expressed in terms of three derived quantities, namely, the gravitational constant G , Planck's constant h and the speed of light c , as $Y = c^{\alpha}h^{\beta}G^{\gamma}$. Which of the following is the correct option?

- (a) $\alpha = 7, \beta = -1, \gamma = -2$
(b) $\alpha = -7, \beta = -1, \gamma = -2$
(c) $\alpha = 7, \beta = -1, \gamma = 2$
(d) $\alpha = -7, \beta = 1, \gamma = -2$

Q14. Find derivative of given functions w.r.t. the independent variable x .

- (i) $y = x \sin x$
(ii) $y = e^x \ln x$
(iii) $y = (x-1)(x^2+x+1)$
(iv) $y = \frac{\sin x}{\cos x}$
(v) $y = \left(\frac{x}{2} - 1\right)^{-10}$
(vi) $y = \sin x + \ln(x^2) + e^{2x}$
(vii) $y = \frac{\cot x}{1 + \cot x}$

Q15. The force is given in terms of time t and displacement x by the equation $F = A \cos Bx + C \sin Dt$. The dimensional formula of $\frac{D}{B}$.

Q16. A quantity f is given by $f = \sqrt{\frac{hc^5}{G}}$ where c is speed of light, G universal gravitational constant and h is the Planck's constant. Dimension of f is that of :
(a) area
(b) energy
(c) momentum
(d) volume

Q17. The area of a rectangular field (in m^2) of length 55.3 m and breadth 25 m found after rounding off the value of correct significant digits?

Q18. Integrate the following using suitable method with respect to x .

- (i) $y = \int (x^2 + 5x - 4) dx$
(ii) $y = \int x \cos x dx$
(iii) $y = \int e^x \cos x dx$
(iv) $y = \int x \cos(x^2) dx$

Q19. Kinetic energy of a particle moving along elliptical trajectory is given by $K = \alpha s^2$ where s is the distance travelled by the particle. Determine dimensions of α .

Q20. Energy due to position of a particle is given by, $U = \frac{\alpha \sqrt{y}}{y + \beta}$ where α and β are constants, y is distance. Find the dimensions of $(\alpha \times \beta)$.

5.	CHEMISTRY	<ol style="list-style-type: none"> 1. Calculate the molarity of a solution of ethanol in water in which the mole fraction of ethanol is 0.040. 2. Calculate the number of oxygen atoms in 4.4g of CO₂. 3. Write the electronic configuration of elements with atomic number 1 to 30. 4. Calculate the mass of water required to make 150 g of 20% solution of sugar. 5. 2.82 g of glucose(molar mass=180) is dissolved in 30 g of water.Calculate the concentration of the solution in terms of molality 6.A solution is prepared by dissolving 18.25 g of NaOH in distilled water to give 200 mL solution.Calculate the molarity of the solution . 7. The molecular mass of an organic compound is 78 and its percentage composition is 92.4% C and 7.6% H. Determine the molecular formula of the compound . 8. 5.64 g of glucose (molar mass=180) are dissolved in 30 g of water. Calculate the mole fraction of glucose and water. 9. An organic compound on analysis gave the following data : C = 80% and H= 20% .If the molecular mass is 30 ,then calculate its molecular formula. 10.The density of 3M solution of NaCl is 1.25 g mL⁻¹.Calculate the molality of the solution. <p>Note-Solve all the NCERT questions(In-text as well as Back chapter questions) of chapter 1</p>
6.	INFORMATICS PRACTICES	<p>ANSWER THE FOLLOWING QUESTIONS</p> <ol style="list-style-type: none"> 1.Explain the IPO cycle (Input-Process-Output). 2.What is the function of an operating system? 3.Define primary memory and secondary memory. 4.What is a CPU? Name its parts. 5.What is the role of input devices? Give examples. 6.Explain the components of a computer system with diagram. 7.Describe different types of software with examples. 8.Explain the functions of CPU in detail. 9.Compare RAM and ROM. 10.Explain different types of memory in a computer system.
7.	COMPUTER SCIENCE	<p>ANSWER THE FOLLOWING QUESTIONS.</p> <ol style="list-style-type: none"> 1. Briefly explain the basic architecture of a computer. 2. What do you understand by input unit ? What is its significance ? 3. What is the function of CPU in a computer system ? What are its subunits ? 4. What functions are performed by the control unit ? 5. What functions are performed by the ALU ? 6. Distinguish between CPU and ALU.

		<p>7. What is the function of output unit in a computer system? Give examples of some output devices</p> <p>8. What role does memory play in the functioning of computer system?</p> <p>9. Define each of the following:</p> <p>(a) byte</p> <p>(b) kilobyte</p> <p>(c) megabyte</p> <p>(d) gigabyte</p> <p>(e) terabyte.</p> <p>10. What is the meaning of the term volatile primary memory ? What can be done to overcome the problems of volatility ?</p>
8.	HINDI	<p>1 कवयित्री मीरा पर आधारित एक डाक्यूमेंट्री वीडियो बनाकर मेल कीजिए।</p> <p>2 मुंशी प्रेमचंद जी का जीवन परिचय, कार्यशैली, रचनाएँ एवं उनके संघर्ष का वर्णन कीजिए। (लगभग दस पेज में)</p> <p>Email. opjshindi.hw@gmail.com</p>
9.	GEOGRAPHY	<p>Map Skills</p> <p>1. Mark and label major cities, rivers, and mountains on an outline map of India.</p> <p>2. Research and write about a specific geographical feature or region in India, such as:</p> <ul style="list-style-type: none"> - The Himalayan Mountains - The Western Ghats - The Eastern Ghats - . The eastern coastal plains and Western coastal plains. <p>3. Conduct a survey of your RAIGARH district to identify geographical features, such as Rainfall, rivers, hills ,soil, vegetation etc on an outline map of Raigarh.</p> <p>Note:- please use the appropriate colour for levelling on the map.</p>
10.	PHYSICAL EDUCATION	<p>*All the questions are compulsory.</p> <p>1. What is Physical Education? Briefly Explain.</p> <p>2. What are the Aims & Objective of Physical Education?</p> <p>3. Explain the Changing trends in Physical Education.</p> <p>4. What do you mean by Teaching career in Physical education?</p> <p>5. Discuss Coaching Career in details.</p> <p>6. What do you understand by Administration related career? Express your views.</p> <p>7. What is Sports Journalism? Discuss Sports Photography.</p>