**JAMDAGNI PUBLIC SCHOOL- SESSION 2024-25**

**CLASS-XI**

**HOLIDAYS HOMEWORK**

| SUBJECT | HOME WORK |
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| ENGLISH | MONTH OF JUNE BROUGHT LONG, HOT DAYS<br>AND NOW WE HAVE OUR SUMMER HOLIDAYS<br>SCHOOL IS CLOSED AND NO SET RULES<br>WAKING UP LATE AND GOING TO POOL.<br>LITTLE HOMEWORK, EASY TO BE DONE<br>PLAYING WITH FRIENDS AND LOTS OF FUN,<br>BEAUTIFUL TIME COMES ONCE IN A YEAR,<br>SUMMER HOLIDAYS ARE BEST DAYS EVER!!<br>Do these questions ……<br>A. Power Point Presentation.<br>• Based on the chapter 1 – The Portrait of a Lady/ by Khushwant Singh, prepare a Power Point Presentation.<br>• Compare and contrast the characteristics of the author's grandmother with that of your own grandmother.<br>Please note the following points:<br>1. Give a title to your presentation.<br>2. Add some pictures of your grandmother.<br>3. Number of slides should be 7-10.<br>4. Also write a note on your association with your grandmother.<br>5. Make it attractive and colorful.<br>B. Research on Khushwant Singh's life and works.<br>• Find out about the role of Khushwant Singh's father in building Delhi. Write your findings in your notebooks with pictures.<br>C. Cut out 5 clippings of Classified Ads under the heads –<br>(i) For sale (ii) To-let (iii) Situations vacant |
| HINDI | 1. 'नमक का दारोगा' पाठ को पढ़कर अपने शब्दों में सम्पूर्ण पाठ का सारांश लिखिए।<br>2. 'एक भारत श्रेष्ठ भारत' के अन्तर्गत उत्तराखंड और कर्नाटक की वेशभूषा को एक पोस्टर (A/3 साइज) पर चित्रांकित कीजिए। |
| PHYSICS | 1. Write and perform the given below activities in your Physics practical notebook.<br>Activity 1. To study dissipation of energy of a simple pendulum by plotting a graph between square of amplitude and time.<br>Activity 2. To study the variation in range of a projectile with angle of projection.<br>2. Solve the given chapter based assignment in your assignment notebook. |
| INFORMATION PRACTICE | Q1-Prepare a PowerPoint presentation on AI ( Artificial Intelligence) and it's application, it's technology – Virtual, Augmented and Mixed reality.<br>Q2- Make a diagram on Blockchain Technology, and write about it.<br>● Maximum – 30<br>● Minimum page-25<br>● Font size-12, Alignment – justify, Fontstyle- Times New Roman<br>● Content of the Slide should be short and to the point . Keep the text to a minimum.<br>● First page must contain – Name of the student , Class , Section Roll number, Topic name.<br>● Last page is of Thank you. Front page and last page should be Computerized and It'll be in word format.<br>● File must be spiral binding or stick file. |

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| BIOLOGY | Make a herbarium file on topic<br>1.Angiosperm flower<br>2.Different types of leaves<br>3.Different types of pollen grain.<br>Different types of petals |
| MATHS | 1. Write and perform the given below activities in your Maths Manual notebook.<br>(a) To verify that for two sets A and B ,n(A X B) = p q and the total number of relations from A to B is $2^{pq}$.<br>(b)To represent set theoretic operations using venn diagrams .<br>2. Solve the given below assignment in maths notebook. |
| CHEMISTRY | 1. What is Chemistry ? Write about any five chemicals which are used in our everyday life?<br>2. Solve the below given assignment in your notebook. |
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**JAMDAGNI PUBLIC SCHOOL- SESSION 2024-25**

**SUBJECT – SCIENCE ( CHEMISTRY )**

**CLASS XI**

**ASSGINMENT-01**

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| **1** | **Multiple Choice Question**. |
| **i.** | The number of moles present in 6 gms of carbon is:<br>(a) 2 (b) 0.5 (c) 5 (d) 1 |
| **ii.** | What is the concentration of nitrate ions if equal volumes of 0.1 M $AgNO_3$ and 0.1 M NaCl are mixed together<br>(a) 0.1 N (b) 0.2 M (c) 0.05 M (d) 0.25 M |
| **iii.** | The number of significant figures in $6.02 \times 10^{23}$ is ————<br>(a) 23 (b) 3 (c) 4 (d) 26 |
| **iv.** | A measured temperature on Fahrenheit scale is 200F. What will this reading be on the Celsius Scale?<br>(a) 40 ℃ (b) 94 ℃ (c) 93.3 ℃ (d) 30 ℃ |
| **v.** | Formation of CO and CO2 illustrates the law of ————.<br>(a) Law of conservation of mass (b) Law of Reciprocal proportion (c) Law of Constant Proportion (d) Law of Multiple Proportion |
| **vi.** | **A measured temperature on Fahrenheit scale is 200°F. What will this reading be on Celsius scale?**<br>**(a) 40°C (b) 94°C (c) 93.3°C (d) 30°C** |
| **vii.** | **What will be the molarity of a solution, which contains 5.85 g of NaCl(s) per 500 mL?**<br>**(a) 4 mol $L^{-1}$ (b) 20 mol $L^{-1}$ (c) 0.2 mol $L^{-1}$ (d) 2 mol $L^{-1}$** |
| **viii.** | **If 500 mL of a 5 M solution is diluted to 1500 mL, what will be the molarity of the solution obtained?**<br>**(a) 1.5 M (b) 1.6 M (c) 0.017 M (d) 1.59 M** |
| **ix.** | **If the concentration of glucose ($C_6H_{12}0_6$) in blood is 0.9 g $L^{-1}$, what will be the molarity of glucose in blood?**<br>**(a) 5 M (b) 50 M (c) 0.005 M (d) 0.5 M** |
| **x.** | **What will be the molality of the solution containing 18.25 g of HCl gas in 500 g of water?**<br>**(a) 0.1 m (b) 1 M (c) 0.5 m (d) 1 m** |
| **2.** | ***Directions\:* In each of the following questions, a statement of Assertion is given, and a corresponding statement of Reason is given just below it. Of the statements, given below, mark the correct answer as:**<br>**(a) Both assertion and reason are true, and reason is the correct explanation of assertion.**<br>**(b) Both assertion and reason are true, but reason is not the correct explanation of assertion.**<br>**(c) Assertion is true, but reason is false.**<br>**(d) Assertion is false, but reason is true.** |

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| **i.** | **Assertion :** 1.231 has three significant figures.<br>**Reason :** All numbers right to the decimal point are significant. |
| **ii.** | **Assertion :** The empirical mass of ethene is half of its molecular mass.<br>**Reason :** The empirical formula represents the simplest whole number ratio of various atoms present in a compound. |
| **iii.** | **Assertion:** 1 mole of $H_2SO_4$ is neutralised by 2 moles of NaOH but 1 equivalent of $H_2SO_4$ is neuralised by 1 equivalent of NaOH.<br>**Reason:** Equivalent wt. of $H_2SO_4$ is half of its molecular wt. while equivalent wt. of NaOH is 40. |
| **iv.** | **Assertion:** One mole of $SO_2$ contains double the number of molecules present in one mole of $O_2$.<br>**Reason:** Molecular weight of $SO_2$ is double to that of $O_2$. |
| **v.** | **Assertion:** The number of O atoms in 16 g of oxygen and 16 g of ozone is same.<br>**Reason:** Each of the species represent 1 g-atom of oxygen. |
| **3.** | **Short Question Answer** |
| **i.** | Volume of a solution changes with change in temperature, then will the molality solution be affected by temperature? Give reason for your answer. |
| **ii.** | **Calculate the mass of sodium acetate ($CH_3COONa$) required to make 500 mL of 0.375 molar aqueous solution. Molar mass of sodium acetate is 82.0245 g $mol^{-1}$** |
| **iii.** | **How much copper can be obtained from 100 g of copper sulphate ($CuSO_4$ )? ( Atomic mass of Cu= 63.5 amu)** |
| **iv.** | **What do you mean by significant figures?** |
| **v.** | What is Stoichiometry? |
| **vi.** | **What is Empirical formula ?** |
| **vii.** | Calculate the mass percent of calcium, phosphorus and oxygen in calcium phosphate $Ca_3(PO_4)_2$. |
| **viii.** | Round up the following up to three significant figures**.**<br>(a.)34.216 (b.)10.4107 (c.)0.04597 (d.)2808 |
| **ix.** | What is the difference between molality and molarity? |
| **x.** | Determine the empirical formula of an oxide of iron which has 69.9%iron and 30.1% oxygen by mass. |
| **4.** | **Long Question Answer** |
| **i.** | The reactant which is entirely consumed in the reaction is known as a limiting reagent. In the reaction $2A + 4B \rightarrow 3C + 4D$, when 5 moles of A react with 6 moles of B, then<br>(a) Which is the limiting reagent?<br>(b) Calculate the amount of C formed? |
| **ii.** | If 4 g of NaOH dissolves in 36 g of $H_2O$, calculate the mole fraction of each component in the solution. Also, determine the molarity of solution (specific gravity of solution is 1g $ml^{-1}$) |
| **iii.** | Determine the molecular formula of an oxide of iron in which the mass percent of iron and oxygen are 69.9 and 30.1 respectively. Given that the molar mass of the oxide is 159.69 g mol-1 |
| **iv.** | Define the law of multiple proportions. Explain it with the two examples. How does this law point to the existence of atoms? |
| **v.** | (a.) What will be the mass of one $^{12}C$ atom in g?<br>(b.) How many significant figures should be present in the answer of the following calculations?<br>(i) $5 \times 5.364$ (ii) 0.0125 + 0.7864 + 0.021 |
| **5.** | **Value-Based Question:** |
| | Two friends Riya and Pooja were discussing that which is better for expressing the concentration of a solution. Molality or Molarity? Pooja told Riya that Molality is considered better for expressing the concentration as compared to Molarity and explained the reason as well.<br><br>(a.)What would be the explanation of Pooja?<br><br>(b.)What are the units of Molality or Molarity ?<br><br>(c.)What is the difference between Molality or Molarity ? |