

YEAR 13 A /B –CHEMISTRY

WEEK 5 (27th September to 1st October)

Topic: Acid and Base concept.

Work sent to the students through Google classroom / Zoom Learning Platform

Resources: Text book, Worksheets, video, power point presentations.

Date	Topic	
<p>27.09.20 Sunday 1-13A 4-13B</p> <p>Mode of Teaching – Zoom</p>	<p>Lesson Objective: -Understand that strong acid ionizes almost completely and weak acid partially</p> <p>- calculate pH from given concentration of strong acid</p> <p>.</p> <p>Success Criteria:</p> <ul style="list-style-type: none"> ●Define pH ●calculate pH of strong acid on the basis of complete ionization in solution to give H⁺ ions 	<p>Teacher uses powerpoint presentation that contains interactive questions.</p> <p>Students solve the worksheet file questions and upload in the google classroom at end of the lesson</p>
<p>Sunday 27.09.20 2-13 A</p> <p>Tuesday 29.09.20 2-13B</p>	<p>Lesson Objective: Deduce expression for weak acid from balanced equation for partial ionization of a weak acid.</p> <p>Understand the difference between a strong and a weak acid in terms of degree of Dissociation</p> <p>Success Criteria:</p> <ul style="list-style-type: none"> • Describe various steps to calculate concentration of H⁺ ion at equilibrium point. • Recall various steps of ICE 	<p>Teacher uses powerpoint presentation that contains interactive questions.</p> <p>Students solve the worksheet file questions and upload in the google classroom at end</p>

Mode of Teaching – Zoom	<ul style="list-style-type: none"> • Calculation of pH of weak acid • Explain that acid–base reactions involve the transfer of proton. 	of the lesson.
Wednesday 30.09.20 4- 13A 2-13B Mode of Teaching – Zoom	Lesson Objective: Understand the difference between a monoprotic and diprotic acid Success Criteria: <ul style="list-style-type: none"> • Calculate the pH of diprotic acid. • Identify the relation between strength of acid with its Ka and pKa values 	Teacher uses powerpoint presentation that contains interactive questions. Students solve the worksheet file questions and upload in the google classroom at end of the lesson

Homework : Solve worksheet file questions of calculation of pH

YEAR 13 A/B– CHEMISTRY

WEEK 5 (27th Sept to 1st Oct)

Work Sent to the students through Zoom Learning Platform / Google classroom

Topic:– Heterogeneous Catalysis

Resources: Text book, Worksheet, Video , Boardworks , powerpoint

Date	Topic	
27.09.20 Sunday 4 13A 5 13B Mode of Teaching –	Learning Objective: Class test on transition metals – pages 106 – 130 Learning Outcome: Reinforce the concept of reactions and balanced equations of transition metals.	Teacher uses Google forms that help students to solve questions.

Zoom		
<p>27.09.20 Sunday 8 13B</p> <p>30.09.20 Wednesday 5 13A</p> <p>Mode of Teaching – Zoom</p>	<p>Learning Objective: Understand, in terms of oxidation number, how V_2O_5 acts as a catalyst in the contact process. Discuss the working of a catalytic converter.</p> <p>Learning Outcome:</p> <ul style="list-style-type: none"> • Explain the working of V_2O_5 as a catalyst in the Contact Process. • Explain the surface adsorption theory. • Understand how a catalytic converter decreases carbon monoxide and nitrogen monoxide emissions from internal combustion engines by: <ol style="list-style-type: none"> i. adsorption of CO and NO molecules onto the surface of the catalyst ii. weakening of bonds and chemical reaction iii. desorption of CO_2 and N_2 product molecules from the surface of the catalyst. 	<p>Teacher uses PowerPoint presentation and video to demonstrate the chromium chemistry.</p> <p>Teacher uses worksheet that contains interactive questions, to explain the mechanism of heterogeneous catalysis.</p>
<p>29.09.20 Tuesday 1 13B</p> <p>23.09.20 Wednesday 6 13A</p> <p>Mode of Teaching – Zoom</p>	<p>Learning Objective: Know that transition metals and their compounds can act as heterogeneous and homogeneous catalysts.</p> <p>Learning Outcome:</p> <ul style="list-style-type: none"> • Explain with examples, the use of transition metals and their compounds as homogeneous and heterogeneous catalysts. • Define heterogeneous catalyst. • Explain the working of heterogeneous catalysts to speed up a chemical reaction. • Give the steps involved in order and write the chemical equations involved in the working of the catalytic converter. 	<p>Instructions will be given to complete chapter questions.</p> <p>Teacher uses text book questions (page 133) based on heterogeneous catalysis .</p>

HOMEWORK: Solve textbook question page 139 of transition metal complexes.

