

**Project –Udaan**  
**Programme Schedule**  
**Physics, Chemistry and Mathematics Sessions**  
**11<sup>th</sup> February 2017 and 12<sup>th</sup> February 2017**  
**XII- WEEK 24 & XI – WEEK 18**

<b>Saturday, 11<sup>th</sup> February 2017</b>		
<b>1.00 pm – 2.45 pm</b>		
	<b>XII</b>	<b>XI</b>
<b>Subject</b>	Mathematics	Mathematics
<b>Topic</b>	Vectors in 2- and 3-dimensional space, Cross product, Dot product	Derangements
<b>2.45pm – 3.15pm – Break</b>		
<b>3.15 pm – 5.00 pm</b>		
<b>Subject</b>	Physics	Physics
<b>Topic</b>	Energy levels, hydrogen spectrum, Composition and size of nucleus, atomic masses, isotopes, isobars; isotones, Mass-energy relation, mass defect; Binding energy per nucleon and its variation with mass number, nuclear fission and fusion	Pressure due to a fluid column; Pascal's law and its applications. Viscosity, Stokes' law, terminal velocity
<b>Sunday, 12<sup>th</sup> February 2017</b>		
	<b>9.00 am – 11.30 am</b>	<b>9.00 am – 11.30 am</b>
<b>Subject</b>	Chemistry	Mathematics
<b>Topic</b>	Preparation & Physical Properties of Amines, Diazonium Salt, Chemical Properties of Amines & Diazonium Salt	Binomial Theorem and its applications, General Term, Middle Term, Numerically greatest term
	<b>11.30 – 12.30 Motivational Video &amp; Lunch Break</b>	<b>11.30 – 12.30 Motivational Video &amp; Lunch Break</b>
	<b>12.30 – 3.00pm</b>	<b>12.30 – 3.00pm</b>
<b>Subject</b>	Mathematics	Chemistry
<b>Topic</b>	Scalar and vector triple products and their applications	Oxidation Reduction Basics and Application of Redox Reactions
	<b>3.10pm – 4.40pm</b>	<b>3.10pm – 4.40pm</b>
	<b>XII</b>	<b>XI</b>
	<b>Assessment on topics of Week 23</b>	<b>Assessment on topics of Week 17</b>
<b>Weekly Feedback Session</b>		