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# COURSE PLANNER FOR STUDENTS

## CLASS-XII | AKHIL (EF01)

**Target: JEE (Main) 2020**

**Medium: English | Hindi**

### COURSE CONCEPT

A Course which offers ample time of 1 year to become an expert in the curriculum of JEE (Main). The course progresses with basic fundamental study; covering upon the syllabus of boards along with the preparation for JEE (Main).

**Course Commencement: 01.04.2019 | Course Ends: 29.12.2019**

**Reshuffling Date: 09 June, 2019 & 01 September, 2019**

### RESONANCE TEACHING METHODOLOGY

#### Preparation for JEE (Main)

Classroom Teaching

Daily Practice Problems (DPPs)

Study Material (Sheets/Modules)

MPT - Main Pattern Part Test

MCT - Main Pattern Cumulative Test

Doubt Classes

\*The support for Fourth subject (English), Fifth subject & Practical is provided by the institute to students on Optional & Nominal Chargeable basis.

#### Preparation for Board Examination

Classroom Teaching & NCERT Book Discussion

Resonance Board Worksheets (RBWs)

Study Material (Sheets/Modules)

Board (BPTs) Pattern Tests

Doubt Classes

Support for Fourth Subject (English)\*

Support for Fifth Subject\*

Support for Practical (Physics & Chemistry)

### TOTAL ACADEMIC HOURS

◆ **Course Duration:** 39 Weeks

◆ **Total Number of Lectures: 576** (P: 192 | C: 192 | M: 192)

◆ **Duration of one lecture:** 1.5 hrs = 90 minutes

◆ **Total Duration of Classroom Teaching: 864 hrs**

◆ **Total Duration of Testing Hours (MCTs/MPTs/BPTs/MT/AIOT): 66 hrs**

◆ **Total Academic Hours in AKHIL Course: 930 hrs**

### TEACHING/ LEARNING TOOLS

- ◆ **Daily Practice Problems (DPPs):** A handout having problems for home assignment, practice and classroom discussion covering current and previous topics. Most of the DPPs contains upto 10 problems or more.
- ◆ **Board Worksheet:** Questions on board pattern with blank spaces (to write their answers) are provided to students in the form of worksheets. Students after completing the worksheet; have to submit it for evaluation. It ensures written practice of students for board examinations.
- ◆ **Study Material (Sheets/Modules):** Topic wise study material having key concepts, problems for practice in various Exercise Levels and questions asked in previous years (Board/ JEE (Main)/ JEE (Advanced) along with school exam material is provided.
- ◆ **Periodic Tests:** Periodic Tests are conducted having part syllabus (Part Tests - PTs) with many problems of seen nature and Tests comprising of the syllabus taught till date (Cumulative Tests - CTs) with unseen problems. Both PTs and CTs are conducted on the pattern of JEE (Main) in offline and online mode. Board Practice Tests (BPTs) are also conducted.

**Holidays/ Vacations (Total: 11 Days):** 1. Independence Day: 15<sup>th</sup> August, 2019 : One Day 2. Deepawali Holidays: From 24<sup>th</sup> October, 2019 (Thursday) to 02<sup>nd</sup> November, 2019 (Wednesday): 09 Days 3. Republic Day: 26<sup>th</sup> January, 2020: One Day (Applicable only at Kota SC and at other SCs Deepawali vacation will be informed to students as per respective SC holiday calendar)

#### Disclaimer:

- ◆ The Institute reserves the right to increase/decrease the number of lectures allotted to any topic and also make changes in the sequence of the topics of each subject depending upon the course requirements.
- ◆ This Course Planner in all respects is applicable only at Kota (Rajasthan). At other Resonance Study Centres, Students/Parents may find some 'minor' variations to accommodate City specific features/factors.
- ◆ The Topic Start Date mentioned here might vary for batches starting on different dates of the particular course. However the coverage of the content in any topic shall remain the same, it is done by altering the frequency of proposed/planned lectures in a particular week.
- ◆ The information given in this Course Planner is proposed for Academic Session 2018-19. The institute reserves the right to make changes in it in the interest of students.

# SUBJECT WISE SYLLABUS PLAN

- ◆ Topic Name
- ◆ Topic Sequence

- ◆ Topic Commencement
- ◆ No. of Lectures allotted to each Topic

PHYSICS (PI)				CHEMISTRY (IC)				MATHEMATICS (MI)			
S. No.	Topic Name/Sequence	No of Lectures	Starting Date	S. No.	Topic Name/Sequence	No of Lectures	Starting Date	S. No.	Topic Name/Sequence	No of Lectures	Starting Date
1	MATHEMATICAL TOOLS	3	01-04-19	<b>PHYSICAL</b>				1	FUNDAMENTALS OF MATHEMATICS	13	01-04-19
2	GEOMETRICAL OPTICS	18	04-04-19	1	MOLE CONCEPT & GASEOUS STATE	7	01-04-19	2	QUADRATIC EQUATION	6	18-04-19
3	ELECTROSTATICS	25	30-04-19	2	SOLID STATE	7	16-04-19	3	RELATION, FUNCTION & I.T.F	15	26-04-19
4	GRAVITATION	2	06-06-19	3	SOLUTION & COLLIGATIVE PROPERTIES	8	01-05-19	4	LIMITS, CONTINUITY & DERIVABILITY	14	20-05-19
5	CURRENT ELECTRICITY	12	10-06-19	4	ATOMIC STRUCTURE, QUANTUM NUMBER	4	21-05-19	5	METHOD OF DIFFERENTIATION	3	10-06-19
6	CAPACITANCE	7	26-06-19	5	PERIODIC TABLE & PROPERTIES & BIN	4	29-05-19	6	STRAIGHT LINE + SOT	10	13-06-19
7	EMF	11	05-07-19	6	CHEMICAL BONDING	8	10-06-19	7	CIRCLE	5	27-06-19
8	EMI	9	19-07-19	7	COORDINATION COMPOUNDS	9	02-07-19	8	APPLICATION OF DERIVATIVES	14	04-07-19
9	ALTERNATING CURRENT	4	01-08-19	8	CHEMICAL KINETICS & RADIOACTIVITY	8	23-07-19	9	INDEFINITE INTEGRATION	8	23-07-19
10	MODERN PHYSICS-I	7	06-08-19	9	SURFACE CHEMISTRY	2	19-08-19	10	DEFINITE INTEGRATION & ITS APPLICATION	14	02-08-19
11	NUCLEAR PHYSICS	5	16-08-19	10	CHEMICAL EQUILIBRIUM	4	21-08-19	11	SEQUENCE & SERIES	5	22-08-19
12	RECTILINEAR MOTION	3	23-08-19	11	ELECTROCHEMISTRY	10	02-09-19	12	STATISTICS	3	28-08-19
13	PROJECTILE MOTION	2	27-08-19	12	METALLURGY	3	19-09-19	13	DIFFERENTIAL EQUATION	6	02-09-19
14	RELATIVE MOTION	2	29-08-19	13	IONIC EQUILIBRIUM	6	25-09-19	14	MATRICES & DETERMINANT	11	09-09-19
15	NLM & FRICTION	6	02-09-19	14	P-BLOCK ELEMENTS (N & O GASES)	4	14-10-19	15	VECTOR & 3-D	15	23-09-19
16	WORK, POWER & ENERGY	4	09-09-19	15	P-BLOCK ELEMENTS (H & N GASES)	2	21-10-19	16	MATHEMATICAL REASONING	3	17-10-19
17	CIRCULAR MOTION	4	13-09-19	16	REAL GASES	4	04-11-19	17	LINEAR PROGRAMMING	2	21-10-19
18	SIMPLE HARMONIC MOTION	5	19-09-19	17	THERMODYNAMICS & THERMOCHEMISTRY	8	11-11-19	18	BINARY OPERATION	6	23-10-19
19	STRING WAVE	4	25-09-19	18	EQUIVALENT CONCEPT	3	26-11-19	19	PERMUTATION & COMBINATION	8	09-11-19
20	SOUND WAVE	4	30-09-19	19	P-BLOCK ELEMENTS (B & C FAMILY)	4	02-12-19	20	PROBABILITY	7	20-11-19
21	WAVE OPTICS	4	10-10-19	20	QUALITATIVE ANALYSIS	4	09-12-19	21	COMPLEX NUMBER	9	28-11-19
22	ELECTROMAGNETIC WAVES	1	16-10-19	21	S-BLOCK ELEMENTS	2	17-12-19	22	CONIC SECTION	15	09-12-19
23	SEMICONDUCTOR	4	17-10-19	22	D & F-BLOCK ELEMENTS	3	19-12-19				
24	COMMUNICATION SYSTEM	2	22-10-19	<b>ORGANIC / INORGANIC</b>							
25	FLUID MECHANICS	4	04-11-19	1	IUPAC NOMENCLATURE	6	01-04-19				
26	ELASTICITY	1	08-11-19	2	STRUCTURAL ISOMERISM	2	22-04-19				
27	VISCOSITY	1	09-11-19	3	STRUCTURAL IDENTIFICATION & POC	3	29-04-19				
28	SURFACE TENSION	2	11-11-19	4	GOC-I	7	13-05-19				
29	CALORIMETRY & THERMAL EXPANSION	2	13-11-19	5	GOC-II	7	10-06-19				
30	KTG & THERMODYNAMICS	8	15-11-19	6	STEREIOISOMERISM	4	26-06-19				
31	HEAT TRANSFER	6	26-11-19	7	ORM-I	6	09-07-19				
32	CENTRE OF MASS	10	03-12-19	8	ORM-II	7	24-07-19				
33	RIGID BODY DYNAMICS	8	16-12-19	9	REDUCTION, OXIDATION & HYDROLYSIS	1	12-08-19				
34	ERROR & MEASUREMENT	1	25-12-19	10	ORM-III	6	13-08-19				
35	UNIT & DIMENSION	1	26-12-19	11	ORM-IV	5	02-09-19				
				12	AROMATIC COMPOUND	5	17-09-19				
				13	CARBONYL COMPOUNDS	6	14-10-19				
				14	CARBOXYLIC ACID & ACID DERIVATIVES	2	12-11-19				
				15	BIOMOLECULES & POLYMERS	5	19-11-19				
				16	ORGANIC REACTIONS INVOLVING STEREOCHEMISTRY	2	09-12-19				
				17	CHEMISTRY IN EVERYDAY LIFE	1	16-12-19				
				18	PHYSICAL PROPERTIES & POC-II	3	17-12-19				
	<b>Total No. of Lectures</b>	<b>192</b>			<b>Total No. of Lectures</b>	<b>192</b>			<b>Total No. of Lectures</b>	<b>192</b>	

## WEEKLY LECTURE PLANNER (Per Subject)

Week No.	Week Duration		No. of Lecture				Total No. of Lectures
	From	To	P	C	O	M	
W1	01/04	06/04	5	3	2	5	15
W2	08/04	13/04	5	3	2	5	15
W3	15/04	20/04	5	3	2	5	15
W4	22/04	27/04	5	3	2	5	15
W5	29/04	04/05	5	3	2	5	15
W6	06/05	11/05	4	3	1	4	12
W7	13/05	18/05	5	3	2	5	15
W8	20/05	25/05	4	3	1	4	12
W9	27/05	01/06	5	3	2	5	15
W10	03/06	08/06	5	3	2	5	15
W11	10/06	15/06	5	2	3	5	15
W12	17/06	22/06	5	3	2	5	15
W13	24/06	29/06	5	2	3	5	15

Week No.	Week Duration		No. of Lecture				Total No. of Lectures
	From	To	P	C	O	M	
W14	01/07	06/07	5	3	2	5	15
W15	08/07	13/07	6	3	3	6	18
W16	15/07	20/07	5	3	2	5	15
W17	22/07	27/07	5	2	3	5	15
W18	29/07	03/08	6	3	3	6	18
W19	05/08	10/08	5	2	3	5	15
W20	12/08	17/08	4	2	2	4	12
W21	19/08	24/08	6	3	3	6	18
W22	26/08	31/08	5	3	2	5	15
W23	02/09	07/09	6	4	2	6	18
W24	09/09	14/09	5	3	2	5	15
W25	16/09	21/09	6	4	2	6	18
W26	23/09	28/09	6	4	2	6	18

Week No.	Week Duration		No. of Lecture				Total No. of Lectures
	From	To	P	C	O	M	
W27	30/09	05/10	1	1	0	1	3
W28	07/10	12/10	5	3	2	5	15
W29	14/10	19/10	6	4	2	6	18
W30	21/10	26/10	3	2	1	3	9
W31	28/10	02/11	0	0	0	0	0
W32	04/11	09/11	6	4	2	6	18
W33	11/11	16/11	5	3	2	5	15
W34	18/11	23/11	6	4	2	6	18
W35	25/11	30/11	6	4	2	6	18
W36	02/12	07/12	6	4	2	6	18
W37	09/12	14/12	5	3	2	5	15
W38	16/12	21/12	6	4	2	6	18
W39	23/12	28/12	4	2	2	4	12

# PERIODIC TEST SCHEDULE & RESULT COMMUNICATION

S. No.	Periodic Test Type and No.	Test Pattern	Periodic Test Date	First Display (Notice Board) & Communication to parent with Centre Rank	Display & Communication of Final Result with All Resonance Rank (ARR)	Uploading of Result on Resonance Website	Chemistry		Mathematics	Testing Hours
							Physical/ Inorganic	Organic		
1	MPT-1	MAIN	12-05-19 (SUNDAY)				Mole Concept & Gaseous state & Solid State	IUPAC Nomenclature, Structural Isomerism	Fundamentals of Mathematics	3
2	MCT-1+ BPT-1	MAIN	26-05-19 (SUNDAY)				Mole Concept & Gaseous State & Solid State & Solution & Colligative Properties	IUPAC Nomenclature, Structural Isomerism, Structural Identification & POC, GOC-I (Inductive Effect & condition of Resonance)	FOM, Set, Quadratic Equation, Relation, Function & IFF Board Syllabus : -Relation, Function & IFF	6
3	MPT-2	MAIN	30-06-19 (SUNDAY)				Atomic Structure, Quantum Number & Periodic Table & Properties & BIN Chemical bonding till VSEPR and Hybridisation	GOC-I & GOC-II (upto acidic strength)	Quadratic Equation, Function & IFF, Limits, Continuity & Derivability, MOD	3
4	MCT-2+ BPT-1	MAIN	21-07-19 (SUNDAY)				Mole Concept & Gaseous State, Solid State, Solution & Colligative Properties, Atomic Structure, Quantum Number, Periodic Table, BIN, Chemical Bonding, Coordination compound till VBT	GOC-I, GOC-II & Stereoisomerism.	FOM, Set, Quadratic Equation, Relation, Function & IFF, Limits, Continuity & Derivability, MOD, Straight Line + SOT, Circle Board Syllabus : -Relation, Function & IFF, Limits, Continuity & Derivability, MOD	6
5	MPT-3	MAIN	11-08-19 (SUNDAY)				Coordination Compounds, Chemical Kinetics & Radioactivity (Upto Experimental methods)	GOC-I, GOC-II, Stereoisomerism & ORM-I	Straight Line + SOT, Circle, AOD	3
6	MCT-3	MAIN	15-09-19 (SUNDAY)				Solid State, Solution & Colligative Properties, Atomic Structure, Quantum Number, Periodic Table, BIN, Chemical Bonding, Coordination Compounds & Chemical Kinetics & Radioactivity, Surface Chemistry, Chemical Equilibrium	ORM-I, ORM-II, Reduction, Oxidation & Hydrolysis & ORM-III	FOM, Set, Quadratic Equation, Relation, Function & IFF, Limits, Continuity & Derivability, MOD, Straight Line + SOT, Circle, AOD, Indefinite Integration, Definite Integration, Statistics, Sequence and Series	3
7	MPT-4	MAIN	13-10-19 (SUNDAY)				Electrochemistry, Metallurgy & Ionic Equilibrium (upto pH calculations)	GOC-I, GOC-II, Stereoisomerism, ORM-I, ORM-II, Reduction, Oxidation & Hydrolysis, ORM-III & ORM-IV	Indefinite Integration, Definite Integration & Its Application, Differential Equation.	3
8	MCT-4+ BPT-3	MAIN	17-11-19 (SUNDAY)				Solid State, Solution & Colligative Properties, Chemical Bonding, Coordination Compounds, & Chemical Kinetics & Radioactivity, Surface Chemistry, Chemical Equilibrium, Electrochemistry, Metallurgy & Ionic Equilibrium, p-Block (Nitrogen to Inert Gas)	ORM-I, ORM-II, Reduction, Oxidation & Hydrolysis, ORM-III, IV, Aromatic compounds, Carbonyl Compounds (upto aldo)	FOM, Set, Quadratic Equation, Relation, Function & IFF, Limits, Continuity & Derivability, MOD, Straight Line + SOT, Circle, AOD, Indefinite Integration, Definite Integration & Its Application, Sequence & Series, Statistics, Differential Equation, Matrices & Determinant, Vector & 3-D, Mathematical Reasoning, Binomial Theorem Board Syllabus : -Relation, Function & IFF, Continuity & Derivability, MOD, AOD, Indefinite Integration, Definite Integration & Its Application, Differential Equation, Matrices & Determinant, Vector & 3-D	6
9	MPT-5	MAIN	15-12-19 (SUNDAY)				Real Gases, Thermodynamics & Thermochemistry, Equivalent Concept & p-block Elements (B & C Family)	ORM-II, Reduction, Oxidation & Hydrolysis, ORM-III & IV, Aromatic compounds, Carbonyl Compounds, Carboxylic Acid, Acid Derivatives & Biomolecules	Matrices & Determinant, Vector & 3-D, Binomial Theorem, P & C, Probability, Complex Number	3
10	MMT1	MAIN	28-12-19 (SUNDAY)				FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	3
11	AOT-1	MAIN	29-12-19 (SUNDAY)				FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	3
12	MBPT	MAIN	30-12-19 (SUNDAY)				FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	3
13	PBPT & CBPT	MAIN	01-01-20 (SUNDAY)				FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	6
14	MMT1	MAIN	02-01-20 (SUNDAY)				FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	3
15	AOT-2	MAIN	16-02-20 (SUNDAY)				FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	3
16	JPT-1 (VAIN)	-	15-03-20 (SUNDAY)				FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	3
17	JPT-2 (VAIN)	-	22-03-20 (SUNDAY)				FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	3
18	JPT-2 (VAIN)	-	29-03-20 (SUNDAY)				FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	3
									<b>Total Testing Hours</b>	<b>66</b>

Note: 1. Students are advised to refer their notice board for test timings 2. There will be no classes on the preceding Saturday before every PTs/ Cts (except BPTs).  
3. Student can submit their request for re-evaluation in two working days after first display of result.

WITHIN 2 WEEKS OF TEST CONDUCTION

WITHIN 1 WEEK OF TEST CONDUCTION

WITHIN 4 (FOUR) DAYS OF TEST CONDUCTION

## RESONANCE BOARD WORKSHEET (RBW) SCHEDULE

PHYSICS		
Week No.	RBW Dist. Date	RBW No.
W-10	03-06-2019	1
W-15	08-07-2019	2
W-24	09-09-2019	3
W-35	25-11-2019	4
<b>TOTAL RBWs</b>		<b>4</b>

CHEMISTRY		
Week No.	RBW Dist. Date	RBW No.
W-07	13-05-2019	1
W-12	17-06-2019	2
W-18	29-07-2019	3
W-23	02-09-2019	4
W-28	07-10-2019	5
W-31	28-10-2019	1
W-36	02-12-2019	2
<b>TOTAL RBWs</b>		<b>7</b>

MATHEMATICS		
Week No.	RBW Dist. Date	RBW No.
W-8	20-05-2019	1
W-19	05-08-2019	2
W-29	14-10-2019	3
<b>TOTAL RBWs</b>		<b>3</b>

### Discussion Schedule of Daily Practice Problems (DPPs):

S. No.	Week No.	DPP No.				No. of DPPs	S. No.	Week No.	DPP No.				No. of DPPs	S. No.	Week No.	DPP No.				No. of DPPs
		P	C		M				P	C		M				P	C		M	
			P/I	O						P/I	O						P/I	O		
1	W1	A1, 2	A1	A1	A1, 2	6	14	W14	31, 32	14	14	31, 32	6	27	W27	0	0	0	0	0
2	W2	3, 4	2	2	3, 4	6	15	W15	33, 34	15	15	33, 34	6	28	W28	8, 9	5	5	8, 9	6
3	W3	5, 6, 7	3	3	5, 6, 7	8	16	W16	35, 36	16	16	35, 36	6	29	W29	10	6	6	10	4
4	W4	8, 9, 10	4	4	8, 9, 10	8	17	W17	37, 38	17	17	37, 38	6	30	W30	11	0	0	11	2
5	W5	11, 12, 13	5	5	11, 12, 13	8	18	W18	39, 40	18	18	39, 40	6	31	W31	DIWALI VACATIONS				
6	W6	14, 15, 16	6	6	14, 15, 16	8	19	W19	41, 42	19	19	41, 42	6	32	W32	12, 13	7, 8	7	12, 13	7
7	W7	17, 18	7	7	17, 18	6	20	W20	43, 44	20	20	43, 44	6	33	W33	14, 15	9	8	14, 15	6
8	W8	19, 20	8	8	19, 20	6	21	W21	45, 46	21	21	45, 46	6	34	W34	16	10	9	16	4
9	W9	21, 22	9	9	21, 22	6	22	W22	47, 48	22	22	47, 48	6	35	W35	17, 18	11, 12	10	17, 18	7
10	W10	23, 24	10	10	23, 24	6	23	W23	B1, 2	B1	B1	B1, 2	6	36	W36	19, 20	13	11	19, 20	6
11	W11	25, 26	11	11	25, 26	6	24	W24	3, 4	2	2	3, 4	6	37	W37	21, 22	14	12	21, 22	6
12	W12	27, 28	12	12	27, 28	6	25	W25	5	3	3	5	4	38	W38	23	15, 16	13	23	5
13	W13	29, 30	13	13	29, 30	6	26	W26	6, 7	4	4	6, 7	6	39	W39	0	17, 18	14	0	3
<b>Total Number of DPPs</b>																			<b>218</b>	

P: Physics | C (P): Chemistry (Physical) | C (I/O): Chemistry (Inorganic/Organic) | M: Mathematics

### RESONANCE EDVENTURES LTD.

**JEE (MAIN) & Pre-Medical Division:** CG Tower-2 [A-51 (A)], IPIA, Behind City Mall, Jhalawar Road, Kota (Raj.)-5

**Contact:** 0744-2777744 | **Mob.:** 08505099972/73

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