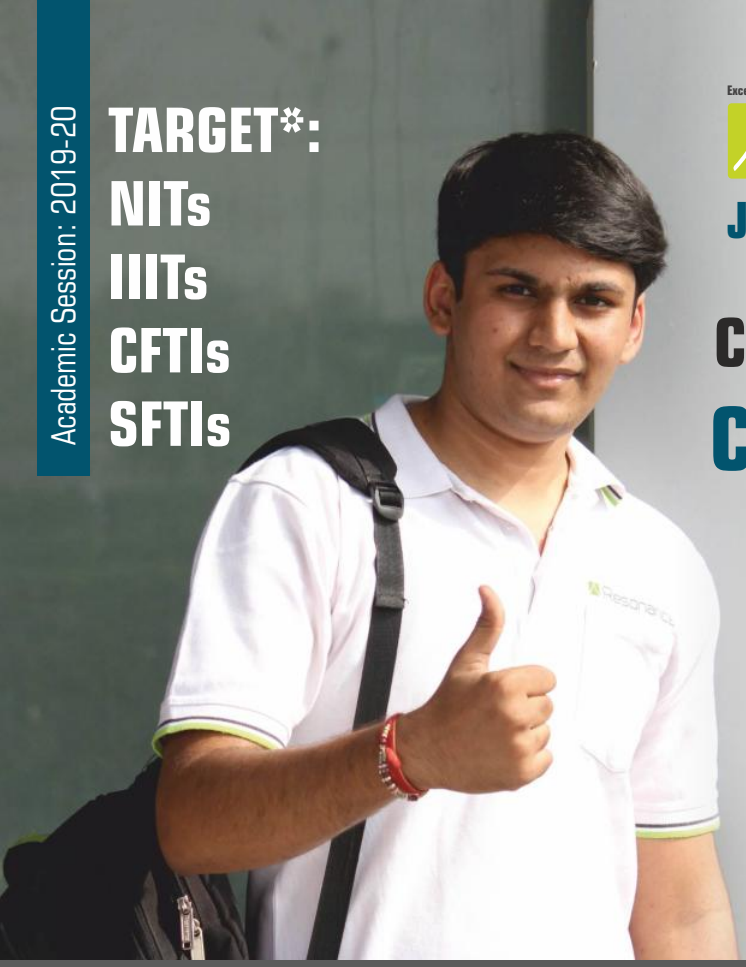
Academic Session: 2019-20

TARGET*:
NITs
IIITs
CFTIs
SFTIs



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COURSE PLANNER FOR STUDENTS

CLASS-XII | AKHIL (EF07)

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 alongwith the preparation for JEE (Main).

Course Commencement: 13.05.2019 | Course Ends: 29.12.2019

Reshuffling Date: 23 June, 2019 & 01 September, 2019 (EF 04) Merge Date : 23.06.2019 | (EF 01) Merge Date : 01.09.2019

RESONANCE TEACHING METHODOLOGY

Preparation for JEE (Main)	Preparation for Board Examination
Classroom Teaching	Classroom Teaching & NCERT Book Discussion
Daily Practice Problems (DPPs)	Resonance Board Worksheets (RBWs)
Study Material (Sheets/Modules)	Study Material (Sheets/Modules)
MPT - Main Pattern Part Test	Board (BPTs) Pattern Tests
MCT - Main Pattern Cumulative Test	Doubt Classes
Doubt Classes	Support for Fourth Subject (English)*
	Support for Fifth Subject*
	Support for Practical (Physics & Chemistry)

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

TOTAL ACADEMIC HOURS

- **Course Duration:** 35 Weeks
- **Total Number of Lectures: 512** (P: 171 | C: 170 | M: 171)
- **Duration of one lecture:** 1.5 hrs = 90 minutes
- **Total Duration of Classroom Teaching: 768** hrs
- **Total Duration of Testing Hours (MCTs/MPTs/BPTs/MT/AIOT): 63** hrs
- **Total Academic Hours in AKHIL Course: 831** 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.

Disclaimer:

- The Institute reserves the right to increase/decrease the number of lectures alloted 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.

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

*NITs: National Institutes of Technology | IIITs: Indian Institutes of Information Technology | CFTIs: Centrally Funded Technical Institutes | SFTIs: Self Financed Technical Institutes

SUBJECT WISE SYLLABUS PLAN

- Topic Name
- Topic Sequence
- Topic Commencement
- No. of Lectures allotted to each Topic

PHYSICS [P]

S. No.	Topic Name/Sequence	No of Lectures	Starting Date
1	MATHEMATICAL TOOLS	1	13-05-19
2	GEOMETRICAL OPTICS	13	14-05-19
3	ELECTROSTATICS	15	31-05-19
4	GRAVITATION	3	24-06-19
5	CURRENT ELECTRICITY	11	27-06-19
6	CAPACITANCE	7	15-07-19
7	EMF	11	23-07-19
8	EMI	9	05-08-19
9	ALTERNATING CURRENT	4	16-08-19
10	MODERN PHYSICS–I	7	21-08-19
11	NUCLEAR PHYSICS	5	29-08-19
12	RECTILINEAR MOTION	3	04-09-19
13	PROJECTILE MOTION	2	07-09-19
14	RELATIVE MOTION	3	10-09-19
15	NLM & FRICTION	5	13-09-19
16	WORK, POWER & ENERGY	4	19-09-19
17	CIRCULAR MOTION	5	24-09-19
18	SIMPLE HARMONIC MOTION	5	30-09-19
19	STRING WAVE	7	10-10-19
20	SOUND WAVE	5	18-10-19
21	WAVE OPTICS	6	04-11-19
22	ELECTROMAGENETIC WAVES	2	11-11-19
23	SEMICONDUCTOR	6	13-11-19
24	COMMUNICATION SYSTEM	4	20-11-19
25	FLUID MECHANICS	6	25-11-19
26	ELASTICITY & VISCOSITY	3	02-12-19
27	SURFACE TENSION	3	05-12-19
28	CALORIMETRY & THERMAL EXPANSION	3	09-12-19
29	KTG & THERMODYNAMICS	8	12-12-19
30	HEAT TRANSFER	5	21-12-19
	Total No. of Lectures	**171**	

CHEMISTRY [C]

S. No.	Topic Name/Sequence	No of Lectures	Starting Date
	PHYSICAL		
1	MOLE CONCEPT & GASEOUS STATE	6	13-05-19
2	SOLID STATE	6	27-05-19
3	SOLUTION & COLLIGATIVE PROPERTIES	8	10-06-19
4	ATOMIC STRUCTURE, QUANTUM NUMBER	3	26-06-19
5	PERIODIC TABLE & PROPERTIES	4	03-07-19
6	CHEMICAL BONDING	7	15-07-19
7	COORDINATION COMPOUNDS	8	29-07-19
8	CHEMICAL KINETICS & RADIOACTIVITY	7	12-08-19
9	SURFACE CHEMISTRY	2	26-08-19
10	CHEMICAL EQUILIBRIUM	4	28-08-19
11	ELECTROCHEMISTRY	9	04-09-19
12	METALLURGY	2	19-09-19
13	IONIC EQUILIBRIUM	5	24-09-19
14	P-BLOCK ELEMENTS (N & O GASES)	4	09-10-19
15	P-BLOCK ELEMENTS (H & N GASES)	2	21-10-19
16	REAL GASES	3	04-11-19
17	THERMODYNAMICS & THERMOCHEMISTRY	7	11-11-19
18	EQUIVALENT CONCEPT	2	26-11-19
19	P-BLOCK ELEMENTS (B & C FAMILY)	3	02-12-19
20	QUALITATIVE ANALYSIS	4	09-12-19
21	S-BLOCK ELEMENTS	2	17-12-19
22	D & F-BLOCK ELEMENTS	2	23-12-19
	ORGANIC / INORGANIC		
1	IUPAC NOMENCLATURE	5	13-05-19
2	STRUCTURAL ISOMERISM	2	28-05-19
3	STRUCTURAL IDENTIFICATION & POC	3	04-06-19
4	GOC-I	7	17-06-19
5	GOC-II	7	16-07-19
6	STEREOISOMERISM	4	12-08-19
7	ORM-I	6	26-08-19
8	ORM-II	7	16-09-19
9	ORM-III	6	08-10-19
10	ORM-IV	5	04-11-19
11	AROMATIC COMPOUND	5	13-11-19
12	CARBONYL COMPOPUNDS	5	26-11-19
13	CARBOXYLIC ACID & ACID DERIVATIVES	1	09-12-19
14	BIOMOLECULES & POLYMERS	4	10-12-19
15	ORGANIC REACTIONS INVOLVING STEREOCHEMISTRY	2	18-12-19
16	CHEMISTRY IN EVERYDAY LIFE, PHYSICAL PROPERTIES & POC-II	1	24-12-19
	Total No. of Lectures	**170**	

MATHEMATICS [M]

S. No.	Topic Name/Sequence	No of Lectures	Starting Date
1	FUNDAMENTALS OF MATHEMATICS	11	13-05-19
2	QUADRATIC EQUATION	6	28-05-19
3	RELATION, FUNCTION & ITF	14	05-06-19
4	LIMITS, CONTINUITY & DERIVABILITY	12	26-06-19
5	METHOD OF DIFFERENTIATION	3	15-07-19
6	STRAIGHT LINE + SOT	10	18-07-19
7	CIRCLE	5	30-07-19
8	APPLICATION OF DERIVATIVES	13	05-08-19
9	MATHEMATICAL REASONING	3	21-08-19
10	INDEFINITE INTEGRATION	7	24-08-19
11	DEFINITE INTEGRATION & ITS APPLICATION	11	02-09-19
12	MATRICES & DETERMINANT	10	14-09-19
13	VECTOR & 3-D	13	26-09-19
14	SEQUENCE & SERIES	5	16-10-19
15	STATISTICS	2	22-10-19
16	LINEAR PROGRAMMING	1	04-11-19
17	BINARY OPERATION	1	05-11-19
18	DIFFERENTIAL EQUATION	6	06-11-19
19	BINOMIAL THEOREM	5	13-11-19
20	PERMUTATION & COMBINATION	8	19-11-19
21	PROBABILITY	6	28-11-19
22	COMPLEX NUMBER	8	05-12-19
23	CONIC SECTION	11	14-12-19
	Total No. of Lectures	**171**	

WEEKLY LECTURE PLANNER (Per Subject)

Week No.	Week Duration		No. of Lecture				Total No. of Lectures
	From	To	P	C P/I	C O	M	
W1	13/05	18/05	5	3	2	5	15
W2	20/05	25/05	5	3	2	5	15
W3	27/05	01/06	5	3	2	5	15
W4	03/06	08/06	5	3	2	5	15
W5	10/06	15/06	5	3	2	5	15
W6	17/06	22/06	4	3	1	4	12
W7	24/06	29/06	5	3	2	5	15
W8	01/07	06/07	4	3	1	4	12
W9	08/07	13/07	5	3	2	5	15
W10	15/07	20/07	6	4	2	6	18
W11	22/07	27/07	6	4	2	6	18
W12	29/07	03/08	6	4	2	6	18

Week No.	Week Duration		No. of Lecture				Total No. of Lectures
	From	To	P	C P/I	C O	M	
W13	05/08	10/08	6	4	2	6	18
W14	12/08	17/08	5	3	2	5	15
W15	19/08	24/08	6	4	2	6	18
W16	26/08	31/08	6	4	2	6	18
W17	02/09	07/09	6	4	2	6	18
W18	09/09	14/09	6	4	2	6	18
W19	16/09	21/09	6	4	2	6	18
W20	23/09	28/09	6	3	3	6	18
W21	30/09	05/10	2	1	1	2	6
W22	07/10	12/10	6	3	3	6	18
W23	14/10	19/10	6	3	3	6	18
W24	21/10	26/10	3	2	1	3	9

Week No.	Week Duration		No. of Lecture				Total No. of Lectures
	From	To	P	C P/I	C O	M	
W25	28/10	02/11	0	0	0	0	0
W26	04/11	09/11	6	3	3	6	18
W27	11/11	16/11	6	3	3	6	18
W28	18/11	23/11	6	3	3	6	18
W29	25/11	30/11	6	3	3	6	18
W30	02/12	07/12	6	3	3	6	18
W31	09/12	14/12	6	3	3	6	18
W32	16/12	21/12	6	3	3	6	18
W33	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	Periodic Test Syllabus				Testing Hours
								Chemistry		Mathematics	
								Physical/ Inorganic	Organic		
1	MPT-1	JEE (MAIN)	16-06-19 (SUNDAY)	WITHIN 4 (FOUR) DAYS OF TEST CONDUCTION	WITHIN 1 WEEK OF TEST CONDUCTION	WITHIN 2 WEEKS OF TEST CONDUCTION	Mathematical Tools, Geometrical optics	Mole Concept & Gaseous state,Solid State	IUPAC (Up to Nomenclature of functional group having compounds (Chain terminating functional groups))	Fundamentals of Mathematics	3
2	MCT-1+ BPT-1	JEE (MAIN)	07-07-19 (SUNDAY)				Mathematical Tools, Geometrical optics, Electrostatics, Gravitation	Mole Concept & Gaseous State, Solid State, Solution & Colligative Properties	MCT-1 & BPT-1 : IUPAC Nomenclature, Structural Isomerism, Structural Identification & POC, GOC-I (upto stability of RS)	FOM, Set, Quadratic Equation, Relation, Function & ITF Board Syllabus : Relation, Function & ITF	6
3	MPT-2	JEE (MAIN)	21-07-19 (SUNDAY)				Electrostatics, Gravitation, Current Electricity	Solution & Colligative Properties, Atomic Structure & Periodic Table & Properties	GOC-I (Application of m effect i.e., electron density, Bond length)	Quadratic Equation, Function & ITF, Limits, Continuity & Derivability	3
4	MCT-2+ BPT-1	JEE (MAIN)	11-08-19 (SUNDAY)				Mathematical Tools , Geometrical optics, Electrostatics, Gravitation, Current Electricity, Capacitance, EMF	Mole Concept & Gaseous State, Solid State, Solution & Colligative Properties, Atomic Structure & Periodic Table & Properties, Chemical Bonding, Coordination Compounds (uptoWerner theory, EAN rule, VBT)	GOC-I, GOC-II, Mains Stereoisomerism (upto Chiral carbon & symmetry elements)	FOM, Set, Quadratic Equation, Relation, Function & ITF, Limits, Continuity & Derivability, MOD, Straight Line + SOT, Circle Board Syllabus : Relation, Function & ITF, Limits, Continuity & Derivability, MOD	6
5	MCT-3	JEE (MAIN)	15-09-19 (SUNDAY)				Mathematical Tools , Geometrical optics, Electrostatics, Gravitation, Current Electricity, Capacitance, EMF, EMI, Alternating Current, Modern Physics-I, Nuclear Physics, Rectilinear Motion	Mole Concept & Gaseous State, Solid State, Solution & Colligative Properties, Atomic Structure & Periodic Table & Properties, Chemical Bonding, Coordination Compounds, Chemical Kinetics & Radioactivity, Surface Chemistry, Chemical Equilibrium	IUPAC Nomenclature, Structural Isomerism, Structural Identification & POC, GOC-I, GOC-II, Stereoisomerism, ORM-I (up to Reaction of acidic hydrogen)	Function & ITF, Limits, Continuity & Derivability, MOD, Straight Line + SOT, Circle, AOD	3
6	MPT-3	JEE (MAIN)	13-10-19 (SUNDAY)				Capacitance, EMF, EMI, Alternating Current, Modern Physics-I, Nuclear Physics, Rectilinear Motion, Projectile Motion, Relative Motion, NLM, Friction, Work Power & Energy, Circular Motion	Electrochemistry, Metallurgy, Ionic Equilibrium (upto Weak acids & bases: pH calculations & Buffers)	GOC-I, II ORM-II (Upto Electrophilic addition reaction of alkene)	MOD, Straight Line + SOT, Circle, AOD, Indefinite Integration, Definite Integration and Application	3
7	MCT-4+ BPT-3	JEE (MAIN)	17-11-19 (SUNDAY)				Mathematical Tools , Geometrical optics, Electrostatics, Gravitation, Current Electricity, Capacitance, EMF, EMI, Alternating Current, Modern Physics-I, Nuclear Physics, Rectilinear Motion, Projectile Motion, Relative Motion, NLM, Friction, Work Power & Energy, Circular Motion, Simple Harmonic Motion, String Waves, Sound Waves, Wave Optics	Mole Concept & Gaseous State, Solid State, Solution & Colligative Properties, Atomic Structure, Quantum Number, Periodic Table, BIN, Chemical Bonding, Coordination Compounds, Chemical Kinetics & Radioactivity, Chemical Equilibrium, Electrochemistry, Metallurgy, Ionic Equilibrium, p-block (15 to 18) & Real Gases	ORM-I, ORM-II, Reduction, Oxidation & Hydrolysis, ORM-III, IV, Aromatic compounds (upto Chemical reaction of phenol)	FOM, Set, Quadratic Equation, Relation, Function & ITF, Limits, Continuity & Derivability, MOD, Straight Line + SOT, Circle, AOD, Mathematical Reasoning, Indefinite Integration, Definite Integration, Matrices & Determinant, Vector & 3-D, Sequence & Series, Statistics, Differential Equation Board Syllabus : Relation, Function & ITF, Continuity & Derivability, MOD, AOD, Indefinite Integration, Definite Integration, Matrices & Determinant, Vector & 3-D, LPP, Binary Operation, Differential Equation	6
8	MPT-4	JEE (MAIN)	15-12-19 (SUNDAY)				Simple Harmonic Motion, String Waves, Sound Waves, Wave Optics, EMW, Solid Semi Conductor, POC, Fluid Mechanics, Elasticity & Viscosity, Surface Tension	Ionic Equilibrium, p-block (15 to 18) & Real Gases, Thermodynamics, Equivalent Concept, p-Block B & C (Boron family elements)	ORM-IV, Aromatic compound & Carbonyl compound	Matrices & Determinant, Vector & 3-D, Binomial Theorem, P & C, Probability, Complex Number	3
9	MMT1	JEE (MAIN)	28-12-19 (SUNDAY)				FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	3
10	AIOT-1	JEE (MAIN)	29-12-19 (SUNDAY)				FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	3
11	MBPT	JEE (MAIN)	30-12-19 (SUNDAY)				FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	3
12	PBPT & CBPT	JEE (MAIN)	01-01-20 (SUNDAY)				FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	6
13	MMT1	JEE (MAIN)	02-01-20 (SUNDAY)				FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	3
14	AIOT-2	JEE (MAIN)	16-02-20 (SUNDAY)				FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	3
15	JPT-1 (MAIN)	–	15-03-20 (SUNDAY)				FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	3
16	JPT-2 (MAIN)	–	22-03-20 (SUNDAY)				FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	3
17	JPT-2 (MAIN)	–	29-03-20 (SUNDAY)				FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	FULL SYLLABUS	3
										Total Testing Hours	**63**

Note: 1. Students are advised to refer their notice board for test timings 2. Their 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.

RESONANCE BOARD WORKSHEET (RBW) SCHEDULE

PHYSICS

Week No.	RBW Dist. Date	RBW No.
W-04	03-06-2019	1
W-09	08-07-2019	2
TOTAL RBWs		4

CHEMISTRY

Week No.	RBW Dist. Date	RBW No.
W-07	24-06-2019	1
W-11	22-07-2019	2
W-14	12-08-2019	3
W-17	02-09-2019	4
W-21	30-09-2019	5
TOTAL RBWs		5

MATHEMATICS

Week No.	RBW Dist. Date	RBW No.
W-07	24-06-2019	1
W-13	05-08-2019	2
W-23	14-10-2019	3
TOTAL RBWs		3

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	A1	A1	A1	8	12	W12	10	12	12	10	6	23	W23	0	22	23	0	4
2	W2	2	2	2	2	8	13	W13	0	13	13	0	6	24	W24	0	0	24	0	6
3	W3	3	3	3	3	8	14	W14	0	14	14	0	6	25	W25	0	0	0	0	0
4	W4	4	4	4	4	8	15	W15	11	15	15	11	6	26	W26	15	23	25	15	6
5	W5	5	5	5	5	8	16	W16	12	16	16	12	6	27	W27	0	24	26	0	4
6	W6	6	6	6	6	8	17	W17	13	17	17	13	6	28	W28	0	25	27	0	2
7	W7	7	7	7	7	9	18	W18	0	18	18	0	6	29	W29	0	26	28	0	0
8	W8	8, 9	8	8	8, 9	9	19	W19	0	19	19	0	6	30	W30	16	27	29	16	7
9	W9	0	9	9	0	7	20	W20	14	20	20	14	6	31	W31	17	28	30	17	6
10	W10	0	10	10	0	6	21	W21	0	0	21	0	6	32	W32	0	29	0	0	4
11	W11	0	11	11	0	6	22	W22	0	21	22	0	6	33	W33	0	30	0	0	7
														Total Number of DPPs						197

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

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