Course Code	PCA20AE1T	Course Name	CAREER ADVANCEMENT– I	Course Category	AE	Ability Enhancement Course	L	T	P	C
							3	0	0	3

Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil
Course Offering Department	Career Guidance and Development	Data Book / Codes/Standards	Nil		

Course Learning Rationale (CLR):	The purpose of learning this course is to:
CLR-1 :	Demonstrate various principles involved in solving mathematical concepts
CLR-2 :	Develop interest and awareness in students regarding profit/ loss, interest calculations and average
CLR-3 :	Critically evaluate basic mathematical concepts related to mixtures and alligations, permutation and combination and Statistics
CLR-4 :	Provide students with skills necessary to generate and interpret data and concepts related to Series, Direction Sense and blood relation.
CLR-5 :	Enable students to understand reasoning skills
CLR-6 :	Create awareness in students regarding the various concepts in quantitative aptitude and reasoning skills and also its importance in various competitive exams

Course Learning Outcomes (CLO):	At the end of this course, learners will be able to:	Learning			Program Learning Outcomes (PLO)														
		Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)	1 Fundamental Knowledge	2 Application of Concepts	3 Link with Related Disciplines	4 Procedural Knowledge	5 Skills in Specialization	6 Ability to Utilize Knowledge	7 Skills in Modeling	8 Analyze, Interpret Data	9 Investigative Skills	10 Problem Solving Skills	11 Communication Skills	12 Analytical Skills	13 ICT Skills	14 Professional Behavior	15 Life Long Learning
CLO-1 :	Understand, analyze and solve questions based on numbers, logarithms.	3	80	70	H	H	M	H	L	M	-	H	-	H	-	H	M	-	H
CLO-2 :	Create, solve, interpret and apply basic mathematical models which are applicable in our day to day life	3	80	75	M	H	M	H	-	M	-	H	-	H	-	H	M	-	H
CLO-3 :	Understand the concepts of mixtures and alligations, permutation and combinations, probability, time and work and to approach questions in a simpler and innovative method	3	85	70	M	H	M	H	-	M	-	H	-	H	-	H	M	-	H
CLO-4 :	Understand the concept in Word Series, Number Series, Symbol Series and Direction Sense	3	85	80	M	H	M	H	-	M	-	H	-	H	-	H	M	-	H
CLO-5 :	Ability to solve the problems on Logical Reasoning	3	85	75	M	H	M	H	-	M	-	H	-	H	-	H	M	-	H
CLO-6 :	Able to face different competitive exams	3	80	70	M	H	M	H	-	M	-	H	H	M	-	H	M	-	H

Duration (hour)		9	9	9	9	9
S-1	SLO-1	Classification of numbers	Profit and Loss-Introduction	Permutation –Introduction& Basics	Word problems on Line equations-Introduction	Number Puzzles
	SLO-2	Tests of divisibility	Profit and Loss- Basic Problems	Permutation – Problems	Word problems on Line equations- Basic problems	Number Puzzles - Problems
S-2	SLO-1	Unit digit	Statistics-Introduction	Combination-Introduction& Basics	Syllogisms - Basics	Number Puzzles - Problems

	SLO-2	Tailed zeroes	Statistics-Mean, Median, Mode	Combination- Problems	Syllogisms - Problems	Number Puzzles – Tricky Problems
S-3	SLO-1	Series Formulae	Averages-Introduction & Basics	Probability- Introduction &Basics	Word series - Introduction	Logical Puzzles
	SLO-2	Arithmetic Progression Geometric Progression	Averages- Problems	Probability- Basics	Word series – Problems	Logical Puzzles - Problems
S-4	SLO-1	Highest Common Factor (HCF) Greatest Common Measure	Averages- Problems	Probability- Problems	Number series - Introduction	Logical Puzzles –Problems
	SLO-2	Least Common Multiples (LCM)	Averages-Tricky Problems	Probability- Tricky Problems	Number series - Problems	Logical Puzzles - Tricky Problems
S-5	SLO-1	HCF, LCM	Averages-Tricky Problems	Set Theory Introduction	Symbol Series - Introduction	Sequential output tracing- Basics
	SLO-2	HCF, LCM - Solving problems	Averages-Tricky Problems	Set Operation	Symbol Series - Problems	Sequential output tracing- Problems
S-6	SLO-1	Simplification	Ratio – Basics and Formulas	Set - Problems	Direction Sense - Introduction	Sequential output tracing- Problems
	SLO-2	Simplification - Problems	Ratio - Problems	Set - Tricky Problems	Direction Sense - Problems	Sequential output tracing- Tricky Problems
S-7	SLO-1	Virnaculum	Proportions – Basics and Formulas	Time and work-Introduction	Blood relation-Introduction	Inductive, Logical, Abstract
	SLO-2	Virnaculum - Problems	Proportions - Problems	Time and work-Men and Work	Blood relation-Problems	Inductive, Logical, Abstract- Problems
S-8	SLO-1	Logarithm –Introduction of log rules	Mixtures and Alligations-Introduction	Time and work - Problems	Coding – Decoding-Introduction	Diagrammatic Reasoning
	SLO-2	Logarithm – Problems	Mixtures and Alligations-Problems	Time and work - Tricky Problems	Coding – Decoding-Different types	Diagrammatic Reasoning-Problems
S-9	SLO-1	Logarithm –Applications of log rules	Boats and Streams	Pipes &Cisterns- Introduction	Coding – Decoding - Problems	Spatial Reasoning
	SLO-2	Logarithm Application – Problems	Boats and Streams- Problems	Pipes &Cisterns-Problems	Coding – Decoding – Tricky Problems	Spatial Reasoning- Problems

Learning Resources	1. Abhijit Guha, Quantitative Aptitude for Competitive Examinations, Tata McGraw Hill, 5th Edition 2. Dr. Agarwal.R.S, Quantitative Aptitude for Competitive Examinations, S. Chand and Company Limited, 2018 Edition 3. Archana Ram, PlaceMentor: Tests of Aptitude for Placement Readiness, Oxford University Press, Oxford, 2018	4. Edgar Thrope, Test Of Reasoning for Competitive Examinations, Tata McGraw Hill, 6th Edition 5. Dinesh Khattar, The Pearson Guide to Quantitative Aptitude for competitive examinations, Pearson, 3rd Edition *6. P A Anand, Quantitative Aptitude for competitive examinations, Wiley publications, e book, 2019*

Learning Assessment					
Level	Bloom's Level of Thinking	Continuous Learning Assessment (100% weightage)			
		CLA-1 (20%)	CLA-2 (20%)	CLA-3 (30%)	CLA-4 (30%) ##
		Theory	Theory	Theory	Theory
Level 1	Remember	10%	10%	30%	15%
	Understand				
Level 2	Apply	50%	50%	40%	50%
	Analyze				
Level 3	Evaluate	40%	40%	30%	35%
	Create				
	Total	100 %	100 %	100 %	100 %

CLA-1, CLA-2 and CLA-3 can be from any combination of these: Online Aptitude Tests, Classroom Activities, Case Studies, Poster Presentations, Power-point Presentations, Mini Talks, Group Discussions, Mock interviews, etc.

CLA – 4 can be from any combination of these: Assignments, Seminars, Short Talks, Mini-Projects, Case-Studies, Self-Study, MOOCs, Certifications, Conf. Paper etc.,

Course Designers	
Experts from Industry	Internal Experts
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