303105311 - Quant and Reasoning

Course: BTech　　　　　　　　　　　　　　　　　　　　　　　**Semester:** 6

Prerequisite: Good fundamentals in calculations and ability to think logically

Rationale : The course aims on exploring the fundamentals of Aptitude & reasoning, which involves the ability to analyze and evaluate information logically. Students will learn essential skills such as critical thinking, problem-solving, and decision-making. These skills are vital for software engineers as they navigate complex problems and make sound judgments throughout the development process.

Teaching and Examination Scheme

Teaching Scheme					Examination Scheme					Total
Lecture Hrs/Week	Tutorial Hrs/Week	Lab Hrs/Week	Seminar Hrs/Week	Credit	Internal Marks			External Marks		
					T	CE	P	T	P	
3	0	0	0	3	20	20	-	60	-	100

SEE - Semester End Examination, **T** - Theory, **P** - Practical

Course Content　　　　　　　　　　　　　　　　**W** - Weightage (%) , **T** - Teaching hours

Sr.	Topics	W	T
1	**UNIT-1**Number system , LCM & HCF simplifications and approximations	9	4
2	**UNIT-2**Averages , progessions,	9	4
3	**UNIT-3**Ratio and proportion,Problems on Ages, Percentages	12	5
4	**UNIT-4**Profit & loss, partnerships, S.I & C.I	12	5
5	**UNIT-5** Time & work , pipes and Cisterns, Time speed and distance , Problems on train crossings, Boats & streams ,	18	8
6	**UNIT-6**Permutations & combinations, probability	11	5
7	**UNIT-7**Directions, seating arrangements	4	2
8	**UNIT-8**Clocks, calenders	6	3
9	**UNIT-9**Cubes & Dice, syllogisms	9	4
10	**UNIT-10**Blood Relations	5	2
11	**UNIT-11**Series ,Analogy, odd man out, coding and Decoding	5	3
	Total	100	45

Reference Books	
1.	**Quantitative Aptitude for CAT by Arun Sharma (TextBook)**
2.	**Logical reasoning for CAT by Arun Sharma**
3.	**Quantitative Aptitude by Abhijit Guha**

Course Outcome	
After Learning the Course the students shall be able to:
1. Apply Logic & critical thinking skills to analyze information and draw logical conclusions. 2. Solve complex problems by breaking them down into manageable parts & develop effective solutions. 3. Demonstrate the ability to approach problem-solving from various perspectives.

Miscellaneous	
Exam Requirement	Assignments/Seminars/Presentations/Quizzes/Surprise Tests (Summative/MCQ) etc