

Subject Code: 01GS0501

Subject Name: Cognitive Aptitude 1

B. Tech. Year – III (Semester V)

Objectives: This course shall enrich students' preparedness for the upcoming competitive exams, entrance test, and/or placements. It will enhance the numerical skills of the students through the group interactions, practice sessions, and videos.

Credits Earned: 00 Credits

Course Outcomes: After completion of this course, student will be able to:

1. Develop thinking skills by practicing on complex numerical computations (Apply).
2. Inculcate smart approach in numerical problem solving (Analyze).
3. Apply the concepts in both competitive exams and placement drives (Apply).
4. Solve real-life problems requiring interpretation and comparison of complex numeric summaries (Analyze).
5. Create and use visual displays of data (Apply).

Pre-requisite of course:

This course shall enrich students' preparedness for the upcoming competitive exams, entrance test, and/or placements. It will enhance the numerical skills of the students through the group interactions, practice sessions, and videos.

Teaching and Examination Scheme:

Teaching Scheme (Hours)			Credits	Theory Marks			Tutorial / Practical Marks		
				E	I		V	T	
Theory	Tutorial	Practical		ESE	IA	CSE	Viva	Term Work	
2	0	0	0	00	00	00	00	00	00

Contents:

Unit	Topics	Contact Hours
1	Introduction of Quantitative Aptitude	01
2	Simplification (Word Problems): Expressions and Equations, Tactics of solutions, Linear Equations, Solving Linear Equations, Word Problems	02
3	HCF & LCM: Calculation of HCF and LCM, find smallest & largest numbers divisible by given numbers, Common remainder & difference between number and remainder type, Calculation of LCM & HCF of Fraction Numbers.	02
4	Class Test 1 and doubt solving session	01

5	Average: Simple average calculation, Related examples, Combined mean & weighted average, Corrected mean & New mean	02
6	Ratio and Proportion: Ratio & Proportion, Ratio concept and rules & distributing amount in ratio	02
7	Class Test 2 and doubt solving session	01
8	Partnership: Partnership, Partnership ratio and profit distribution	01
9	Mixture and Allegation: Rule of allegation, Concept of Replacement	02
10	Class Test 3 and doubt solving session	01
11	Percentage: Reciprocals & equivalent percentage, Speed techniques of calculating percentage, change of base concept, Multiplying factor concept	02
12	Profit, Loss & Discount: Explanation of basic terms, Simple profit & loss concept, Discount & multiple discount concept, Faulty balance & wrong measurement, discount or mark up or mixing impurities, Other combined examples	01
13	Class Test 4 and doubt solving session	01
14	Simple Interest: Important formulae & Calculation, Calculation of missing value concept, Difference between SI and CI for various years, Comparison of SI and CI investment concept	01
15	Compound Interest: Difference between SI and CI for various years, Comparison of SI and CI investment concept	01
16	Class Test 5 and doubt solving session	01
17	Data Interpretation: Study of various charts and Problem related to charts	02
18	Data Sufficiency: Yes / No Questions, Value Questions	01
19	Class Test 6 and doubt solving session	01
20	Post Assessment Test and doubt solving session	02
Total Hours		28

Suggested Text books / Reference books:

1. Quantitative Aptitude – By Dr. R. S. Agarwal, S. Chand
2. Quantitative Aptitude – By Abhijit Guha, MC Graw Hills
3. Magical Book On Quicker Maths – By M. Tyra, BSC Publishing Co. Pvt. Ltd.

Suggested Theory distribution:

The suggested theory distribution as per Bloom's taxonomy is as per follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process.

Distribution of Theory for course delivery and evaluation					
Remember	Understand	Apply	Analyze	Evaluate	Create
25%	25%	25%	25%	00%	00%

Supplementary Resources:

1. www.indiabix.com
2. www.careerbless.com
3. www.sawaal.com
4. www.allindiaexams.com
5. www.freshersworld.com