



**Sarvodaya Kelavani Samaj managed,
Shri Manibhai Virani and Smt. Navalben Virani Science College**

(Autonomous)

(Affiliated to Saurashtra University, Rajkot)

Re-Accredited at 'A' Level by NAAC

STAR college Scheme & Status by MST-DBT

UGC-College with Potential for Excellence (CPE)

UGC-DDU KAUSHAL Kendra

GAAA –Grade A-1 by KCG, Government of Gujarat

GPCB-Government of Gujarat approved Environment Audit Center

Nodal Center for capacity building by GSBTM

Department of Chemistry

Co-Curricular Course (CoC) offered to other Department

Department of Chemistry

Part III		
Skill Enhancement Course (SEC) – II–Co-Curricular Courses (CoC)		
For the students admitted from A.Y. 2021-2022 & onwards		
Offered by: Department of Chemistry	Offered to: (Please mark \checkmark as applicable)	
	<input type="checkbox"/>	Students across the University other than the offering department.
	<input checked="" type="checkbox"/>	Students across the University including the offering department. (The course should not be a part of regular curriculum of the offering department.)
Semester : III – V (3 year programs) / III - VII (4 year programs)		
Course Code	Course Title	Course Credit and Hours
21AECO011	Quantitative Aptitude & Logical Reasoning for Government & Bank Competitive Exams	2 Credit - 4 hrs / wk

Objective of the course:

1. Create awareness among the youth of Saurashtra particularly from the deprived sections, about aims and objectives, procedures and relative advantages of various competitive examinations.
2. Inculcate in them the culture of serving the community and the nation.
3. Plan and conduct coaching and training programmes for successful participation in competitive examination.

Target Skills (Course outcomes) :

1. To solve reasoning problems for competitive exams.
2. To solve common mathematical problems for competitive exams.

Justification and references for the course (Mapping with NSDC/NSQF/Sector Skill Council/Regional needs/any other) :

- The Quantitative aptitude & logical reasoning for government and bank exam is to focus on successful participation of students in competitive exams.

References:

Link Regional needs of the course: <https://gpsc.gujarat.gov.in/>

Course Description:

- This course will require general logical skills to solve common problems that will help them to build confidence to face and clear any competitive exam. SDG 4: Quality education

Course Content	Hours
Module-I: General Fundamentals of Mathematics for Competitive Exams	15hrs
<ul style="list-style-type: none"> • Divisibility Test, Simplification, Division algorithm, unit digit in given number, cube root, cube, square root, square, relations of number, introduction to vedic mathematic techniques. 	
Module-II : Arithmetic	65hrs
<ul style="list-style-type: none"> • HCF & LCM, Average, Percentage, Ratio & Proportion, Profit Loss & Discount, Partnership & Mixture, Simple & Compound Interest, Time Work & Distance, Area, Volume 	
Module-III : Algebra	20 hrs
<ul style="list-style-type: none"> • Permutation & Combination, Probability, Coordinate Geometry, Linear equation, Quadratic equation, Factorization, Polynomials 	
Module-IV : Trigonometry & Geometry	25hrs
<ul style="list-style-type: none"> • Trigonometry: Trigonometric Ratio and Identities, Trigonometric Functions & their Properties, Height and Distance, • Geometry: Angles & sides related properties, Theorems of Geometry, Properties of triangles, Similarity & Congruence related Postulates 	
Module-V : Reasoning	35hrs
<ul style="list-style-type: none"> • Verbal Reasoning : Alphabet, Series, Analogy, Classification, Coding/Decoding, Blood relationship, Symbols & Notations, Distance & Direction, Ranking/ Arrangement, Input, Syllogism, Problem solving, Cause & Effect, Assumption, Conclusions/ Inferences, Courses of Action. Data sufficiency, Data Analysis and Miscellaneous • Non - Verbal Reasoning: Series, Analogy, Classification and Miscellaneous • Practical: Practice Session & Wkly Multiple objective test of 25 marks 	

Pedagogic tools:

1. Chalk and Talk
2. PPT and Videos.
3. Assignment

Reference Books:

1. Quantitative aptitude by Agrawal R. S. , Publishers: S. Chand & Co., New Delhi
2. Objective Arithmetic by Rajesh Verma, Publishers: Arihant Publications (India) Ltd. , New Delhi
3. QuickwerMaths by M. Tyra, Publishers: BSC Publishing Co. Pvt. Ltd., Delhi

4. Analytical Reasoning by M K Pandey, Publishers: BSC Publishing Co. Pvt. Ltd., Delhi
5. Reasoning by Agrawal R. S ,Publishers:Kiran Publication, New delhi.
6. Reasoning, Verbal, Non verbal& Analytical by B S Sijwali&InduSijwali Publishers: Arihant Publications (India) Ltd. , New Delhi

Methods of Assessment& Tools:

S.N.	Component	Content	Duration	Marks	Sub Total
1	Attendance	--	--	10	10
2	Assignments	--	--	10	10
3	Practical Skill Assessment (Continuous Assessment during the semester)	Module 1,2 and 3	1 Hr	20	40
		Module 4 and 5	1 Hr	20	
4	Course Mid Examination	Module 1,2 and 3	1 Hr	20	20
5	Course End Examination	Module 4 and 5	1 Hr	20	20
Total				100	100

At the end of the course no marks are given, only remarks are given as follows:

REMARKS:

Range of Marks	Remarks
90-100	Excellent
75-89	Very Good
60-74	Good
40-59	Fair
< 40	Not Completed