Gyanmanjari Innovative University

Course Syllabus
Gyanmanjari Institute of Arts
Semester-3 (BA)

Subject: Logical Reasoning - BATPA13312

Type of course: Skill Enhancement Courses (SEC)

Prerequisite: Basic Mathematics rules, Basic of algebra, Number system, Geometry etc.

Rationale:

Logical Reasoning helps individuals evaluate information, form logical arguments, and draw evidence-based conclusions.

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks			Total Marks
CI	T	P	C	SEE	CCE		
					MSE	ALA	
2	0	0	2	50	20	30	100

Legends: CI-Classroom Instructions; T – Tutorial; P - Practical; C – Credit; SEE - Semester End Evaluation; MSE- Mid Semester Examination; V – Viva; CCE-Continuous and Comprehensive Evaluation; ALA- Active Learning Activities.

*2 Credits * 25 Marks = 50 Marks (each credit carries 25 Marks)*
SEE 50 Marks will be converted into 25 Marks
CCE 50 Marks will be converted into 25 Marks
It is compulsory to pass in each individual component.

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Course Content:

Sr. No	Course content	Hrs.	% Weightage
1	**Coding-Decoding & Direction Sense:** Coding-Decoding: Letter coding, conditional coding, number-based coding, Word-Pattern Coding: Word-letter-number conversions, Direction Sense: Left-right navigation, distance, shadow-based problems.	07	23 %
2	**Series, Numbers, and Analogy:** Number Series: Arithmetic and geometric patterns, missing terms, Alphabet Series: Forward, backward, skipping logic, Analogy & Classification: Word analogy, number analogy, odd-one-out.	08	27 %
3	**Syllogism & Blood Relations:** Syllogisms: Major and minor premises, conclusions, If – Then conditions, Logical Venn Diagrams, Blood Relations: Family tree, coded relations, puzzles with generations.	07	23 %
4	**Seating Arrangement & Puzzles** Linear Seating: Left-right position, gaps, Circular Seating: Clockwise-anticlockwise, fixed or variable positions, Puzzles: Assignment puzzles, days/places/gender logic grids.	08	27 %

Continuous Assessment:

Sr. No	Active Learning Activities	Marks
1	Students will prepare a Vedic Mathematics shortcut chart related to Logical Reasoning topics and upload it on the GMIU web portal.	10
2	Students will create a syllabus-focused application chart and submit it through the GMIU web portal.	10
3	Students will appear for the Logical Reasoning test conducted by the subject teacher on the GMIU web portal.	10
	Total	30

Suggested Specification table with Marks (Theory):50

Distribution of Theory Marks (Revised Bloom's Taxonomy)						
Level	Remembrance (R)	Understanding (U)	Application (A)	Analyze (N)	Evaluate (E)	Create (C)
Weightage	30%	20%	20%	10%	10%	10%

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from the above table.

Course Outcome:

After learning the course, the students should be able to:	
CO1	Understand and apply various coding-decoding techniques and direction sense concepts to solve logical reasoning problems.
CO2	Analyze and solve number and alphabet series, analogies, and classification problems using arithmetic, geometric, and logical patterns.
CO3	Interpret and evaluate statements and arguments using syllogisms and Venn diagrams; solve family-based relationship problems logically.
CO4	Develop logical thinking to solve linear/circular seating arrangements and structured puzzles involving multiple constraints.

Instructional Method:

The course delivery method will depend upon the requirement of content and the needs of students. The teacher, in addition to conventional teaching methods by black board, may also use any tools such as demonstration, role play, Quiz, brainstorming, MOOCs etc.
From the content 10% topics are suggested for flipped mode instruction.
Students will use supplementary resources such as online videos, NPTEL/SWAYAM videos, e-courses, Virtual Laboratory
The internal evaluation will be done on the basis of Active Learning Assignment
Practical/Viva examination will be conducted at the end of semester for evaluation of performance of students in the laboratory.

Reference Books:

[1] RS Aggarwal – A Modern Approach to Verbal and Non-Verbal Reasoning
[2] How to Prepare for Logical Reasoning for CAT by Arun Sharma
[3] Logic and Structure by Daniel J. Velleman
[4] Logic: A Very Short Introduction by Graham Priest
[5] Previous Year UPSC CSAT Papers