

**Anekant Education Society's**  
**Tuljaram Chaturchand College of Arts, Science & Commerce, Baramati, Dist- Pune**  
**(Autonomous College)**

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**Department of LOGIC**

**Syllabus**

**Course Structure for S.Y.B.A. LOGIC (General)**

<b>Semester</b>	<b>Paper Code</b>	<b>Title of Paper</b>	<b>No. of Credits</b>
<b>III</b>	<b>LOG 2301</b>	<b>FORMAL LOGIC</b>	<b>3</b>
<b>IV</b>	<b>LOG 2401</b>	<b>FORMAL LOGIC</b>	<b>3</b>



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**Department of LOGIC**

**Syllabus**

**Course Structure for S.Y.B.A. LOGIC (General) (w.e. from June, 2020)**  
**Academic Year 2020 – 2021      Class: S.Y.B.A. (Semester- IV)**  
**Paper Code: LOG 2401                      Paper: G2**  
**Title of Paper: Formal Logic**  
**Credit: 3                      No. of Lectures: 48**  
**(60 - 40 pattern to be Implemented from 2019-2020)**

**Semester- IV**

**Unit 1:**

- A. Need for Predicate Logic, difference in approach between Traditional logic and Predicate Logic**
- B. Singular and General Propositions, Constants and Variables (Individual and Predicate), Propositional functions and Substitution instances; Instantiation and Quantification**
- C. Universal and existential quantifiers; symbolizing general propositions; Evaluation of the square of opposition of traditional logic; Exercises in symbolizing general propositions.**

**Unit 2:**

- A. Need for quantification rules**
- B. Nature, form and use of Quantification rules (Preliminary version), Rule of quantificational negation (Q.N.)**
- C. Proving the validity of arguments involving quantification rule (preliminary version).**

**Unit 3:**

- A. Predicates and relations; Relational Logic as an extension of Predicate logic; the logical structure of relational proposition; kinds of relational propositions according to the number of relata.**
- B. Symbolizing relational propositions**
- C. Proving validity of arguments involving relational propositions**

**Unit 4:**

- A. Properties of dyadic relations**
- B. Enthymeme. Proving validity of relational Enthymemic arguments**
- C. Study of identity as a relation, Exercises in symbolizing propositions involving the relation of Identity, Rules of Identity, proving validity of arguments involving identity**

**Readings:**

**Reference Book:-**

1. Copi, I. M., Introduction to Logic, Macmillan Co. New York, 1986. (14th Edition)
2. Copi, I. M., Symbolic Logic, Macmillan Co. New York, 1995 (5th Ed.).
3. Pattrick Suppees (Chapter on Set Theory)
4. Symbolic logic (4<sup>th</sup>ed.) I. M. Copi.
5. Formal logic : scope and limits
6. तर्कविद्या भाग १, २ डॉ. बी.आर जोशी, प्रा.कुलकर्णी, प्रा. मठवाल
7. आधुनिक तर्कशास्त्र —नांगरे, डॉ.चौगुले, प्रा.फरतारे (शिवाजी वि. कोल्हापूर)
8. तर्कशास्त्र —श्रीनिवास दिक्षीत
9. तर्कशास्त्राची मूलतत्त्वे—वाडेकर दे. द.
10. सुलभ तर्कशास्त्र —प्रा. मुकुंद कदम
11. पारंपारिक तर्कशास्त्र —नांगरे, फडतारे, चौगुले, हिरवे, बाघमोडे