



SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE
(Formerly University of Pune, Pune)

**Semester & Choice Based Credit System
(SCBCS) 2019 Pattern**

**T. Y. B. A. LOGIC AND PRINCIPLES OF REASONING
(PHILOSOPHY)
Semester 5 & 6**

**Core Course 3 C & 3 D (CC 3 C & CC 3 D)
Syllabus**

Class	Semester	CBCS Pattern	Title of the Course	Credits
TYBA	5	CC 3 C	Logic and Methodology of science-I	03
TYBA	6	CC 3 D	Logic and Methodology of science-II	03

(To be operative from the Academic Year 2021-22)

TYBA LOGIC AND PRINCIPLES OF REASONING Semester- 5
Core Course 3 C (CC 1 C)
 Syllabus
Operative From 2021-22

Semester Fifth: Logic and Methodology of science – I

Objectives:

1. To teach students to acquire pleasures in logical thinking for social research.
2. To acquaint the student with the principles and techniques of hypothesis.
3. To acquaint the student with the principles and techniques of causation techniques.
4. To create awareness about the significance of logical thinking for academics and life in general.
5. To prepare students for university evaluation system and competitive examination.

Outcome:

1. To know and remember specific facts, terms, concepts, principles or theories.
2. To understand, interpret, compare, contrast, explain
3. To apply knowledge to new situation to solve problems using required knowledge or skills.

Credit 1: Nature of science

- 1.1 Nature of science, Pure and applied Sciences. Commonsense and Science.
- 1.2 Theory and fact. Role of theory and fact.
- 1.3 Values and Science

Credit 2: Theory of causation

- 2.1 Nature of cause, Causal laws and Uniformity of Nature
- 2.2 Aristotle's Causation Theory (Material, Efficient, Formal and Final cause)
- 2.3 Mill's theory of causation

Credit 3: Hypothesis

- 3.1 Nature of Hypothesis, Kinds of Hypothesis
- 3.2 Confirmation of Hypothesis
- 3.3 Conditions of a good hypothesis Second Term

Books for Reading:

1. Nagel E. The Structure of Science Problem in the Logic of Scientific Explanation MacMillan 1961.
2. Hempel C. G. Philosophy of Natural Science, Prentice Hall Englewood Cliff New Jersey 1966
3. Keat Russell Urry, Social Theory as science RKP London 1975
4. Ryan Alan Philosophy of social science MacMillan 1970
5. Lessnoff M.H. The Structure of Social Science: A Philosophical Introduction George Allan Unwin Ltd. London 1974.
6. R. Rudner Philosophy of Social Science Prentice Hall Englewood Cliff New Jersey 1966
7. सुरेंद्र बारलिंगे (१९७२), तकरेखा, पुणे विद्यापीठ, पुणे
8. दे. द. वाडेकर संपादक, तकरेखा, पुणे विद्यापीठ, पुणे
9. दि. य. देशपांडे (१९७६), सांकेतिक तर्कशास्त्र, नागपूर
10. डॉ. बी. आर. जोशी, प्रा. एस.व्ही. कुलकर्णी, प्रा. इ. आर. मठवाले (२००२), तर्कविद्या २, परभणी, स्वाती प्रकाशन
11. प्रा. सौ. माधवी कवी (२००४), तत्वज्ञान प्रदीप, लातूर, विद्याभारती प्रकाशन

Books for Reference:

1. Hempel C. G. Aspects of Scientific Explanation, Free Press New York, 1968
2. Benton, Ted. Philosophy of Social Science: Philosophical foundation of social thought. Craib Ian, Palgrave, New York.
3. Tucker, John, Philosophy of Social Science.
4. Deshpande S.S., Ghokale P.P., More S.S.(Eds.) Vijnanace Tattvajnana, Granthali, Mumbai, 2006.

SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE
CBCS 2019 Pattern
TYBA LOGIC AND PRINCIPLES OF REASONING Semester- 6
Core Course 3 D (CC 1 D)
Syllabus
Operative From 2021-22

Semester Sixth: Logic and Methodology of science – II

Objectives:

1. To acquaint the student with explanation theory and techniques.
2. To equip students with the objectivity and value neutrality logic.
3. To acquaint the student to the pleasures in logical thinking.

Outcome:

1. To know and remember specific facts, terms, concepts, principles or theories.
2. To understand, interpret, compare, contrast, explain
3. To apply knowledge to new situation to solve problems using required knowledge or skills.

Credit 1: Explanation

- 1.1 Nature of Scientific Explanation
- 1.2 Distinction between Scientific Explanation and common-sense explanation
- 1.3 Types of scientific explanation:
 1. D.N. Model,
 2. Functional,
 3. Statistical,
 4. Teleological,
 5. Probabilistic.

Credit 2: Laws

- 2.1 Laws of Nature
- 2.2 Law and Theory
- 2.3 Classifications of laws of Nature
Primary laws, Secondary laws (Empirical and Derivative laws)

Credit 3: Natural and Social Science

- 3.1 Distinction between Natural Sciences and Social Science, Nature of human action and social institutions
- 3.2 Nature of social laws, why development is not possible in social sciences as like Natural Science?
- 3.3 Concept of Value neutrality, meaning and explanation of value neutrality
Concept of Objectivity in social sciences

Books for Reading:

1. Nagel E. The Structure of Science Problem in the Logic of Scientific Explanation MacMillan 1961.
2. Hempel C. G. Philosophy of Natural Science, Prentice Hall Englewood Cliff New Jersey 1966
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6. R. Rudner Philosophy of Social Science Prentice Hall Englewood Cliff New Jersey 1966
7. सुरेन्द्र बारलिंगे (१९७२), तर्करिखा, पुणे विद्यापीठ, पुणे

8. दे. द. वाडेकर संपादक (१९७४), मराठी तत्वज्ञान महाकोश खंड ३, पुणे
9. दि. य. देशपांडे (१९७६), सांकेतिक तर्कशास्त्र, नागपूर
10. डॉ. बी. आर. जोशी, प्रा. एस.व्ही. कुलकर्णी, प्रा. इ. आर. मठवाले (२००२), तर्कविद्या २, परभणी, स्वाती प्रकाशन
11. प्रा. सौ. माधवी कवी (२००४), तत्वज्ञान प्रदीप, लातूर, विद्याभारती प्रकाशन

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