University of Mumbai

No. UG/183 of 2019-20

CIRCULAR:-

Attention of the Principals of the affiliated Colleges, the Head of the University Departments and Directors of the recognized Institutions in Humanities Faculty is invited to this office Circular No. UG/104 of 2018-19, dated 21st August, 2018 relating to the revised syllabus as per the (CBCS) for M.A. in Philosophy – Sem. I to IV.

They are hereby informed that the recommendations made by the Board of Studies in Logic and Philosophy at its meeting held on 28th August, 2019 and subsequently approved by the Board of Deans at its meeting held on 1st October, 2019 **vide** item No.59 have been accepted by the Academic Council at its meeting held on 3rd October, 2019 **vide** item No. 4.4 and that in accordance therewith, the revised syllabus for the M.A. - Semester III Basket 1 (Elective): Classical Thought 5. Traditional Logic and Basket IV (Elective): Logic and Epistemology : 3 Symbolic Logic: First Order Sentential Logic in Philosophy has been brought into force with effect from the academic year 2020-21, accordingly. (The same is available on the University's website www.mu.ac.in).

MUMBAI – 400 032
30th December, 2019

(Dr. Ajay Deshmukh)
REGISTRAR

To

The Principals of the affiliated Colleges, the Head of the University Departments and Directors of the recognized Institutions in Humanities Faculty. (Circular No. UG/334 of 2017-18 dated 9th January, 2018.)

A.C./4.4/03/10/2019

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No. UG/183 -A of 2019   MUMBAI-400 032   30th December, 2019

Copy forwarded with Compliments for information to:-

1) The Chairman, Board of Deans,
2) The Dean, Faculty of Humanities,
3) The Chairman, Board of Studies in Logic and Philosophy,
4) The Director, Board of Examinations and Evaluation,
5) The Professor-cum-Director, Institute of Distance and Open Learning (IDOL),
6) The Director, Board of Students Development,
7) The Co-ordinator, University Computerization Centre,

(Dr. Ajay Deshmukh)
REGISTRAR

AC- 03/10/2019
Item No.- 4.4

UNIVERSITY OF MUMBAI

Revised Syllabus for the M.A. – Semester III Basket I (Classical Thought): 5 Traditional Logic and Basket IV (Elective): Logic and Epistemology: 3. Symbolic Logic: First order Sentential Logic in Philosophy

Program: M.A.

Course: Logic and Philosophy

Semester III

(As Per Choice Based Credit System with effect from the academic year 2020-21)

Semester III Basket I (Classical Thought)

5. Traditional Logic

Unit I: Nature of Logic

a. Various definition of logic, Scope of Logic, Formal and Material Truth
b. The fundamental principles of logic
c. The nature of argument, Truth and Validity

Unit II: Analysis of Logical Proposition

a. Traditional classification of proposition, General schema of standard form of Categorical proposition, Distribution of Terms
b. Relation of categorical proposition, Square of Opposition
c. Modern Classification of Proposition, Simple and Compound statement

Unit III: Kinds of Inference

a. Mediate and Immediate inference
b. Rules of Redaction into standard forms of Categorical proposition
c. Further Immediate inferences- Conversion, Obversion and Contraposition

Unit III: Syllogism

a. Categorical syllogism: Structure and Rules of Categorical Syllogism
b. Four figures and Valid Moods of Categorical syllogism
c. Special Rules of Four figures

References:

1. Irving Copi, *Symbolic Logic* (1957), 5th Edition, Colleier Macmillan Publishers, London,   Macmillan Publishing Co., Inc., New York.
2. Bholanath Roy, (1984), *Text Book of Deductive Logic,* S.C. Sarkar and Sons Pvt. Lit, Calcutta.
3. Krishna Jain, *Tarkshashastra*, (Hindi Book) 4th Edition, D.K. Printworld, New Delhi, 1998.
4. Sunita Ingle and Prof. Vandana Ghushe, *Tarkshashtra – Traditional and Symbolic Logic*, (Marathi Book), Vasu Prakashan, Nagpur, 2004.

Semester III Basket IV (Logic and Epistemology)

3. Symbolic Logic: First Order Sentential Logic

Unit I : Basic concepts involved in first-order sentential logic

a. Historical Path of Symbolic Logic, Nature of logic
b. Methods and Principles used in study of logic
c. Basic Concepts involved in first-order sentential logic, Symbolization technique of proposition in first order sentential logic

Unit II: Natural Deduction System

a. Rules of Inference: Formal Proof of Validity involving rules of inference
b. Rules of Replacement: Formal Proof of Validity involving rules of inference
c. Incompleteness of the nineteen rules, Metatheorem to be proved

Unit III: Additional Rules of Deduction system

a. Need of Additional rules of Copi's list to determine the validity of an Argument:
b. Proofs of Tautologies with additional rules
c. Reduction ad Absurdum Method: Proofs of propositions as Tautology, Contradictory and contingent, Proofs of validity and invalidity of an argument

Unit IV: Other Methods in Symbolic Logic

a. Conjunctive Normal Form formula to determine statement from to be Tautologies or not-tautology
b. Disjunctive Normal Form formula to determine statement from to be Contradictory or not-Contradictory.

References:

1. Irving Copi, *Symbolic Logic* (1957), 5th Edition, Colleier Macmillan Publishers, London, Macmillan Publishing Co., Inc., New York.
2. Symbolic logic, Copi Irving, MacMillan Pub. Co., New York, 1979.
3. Elements of logic, J. Sta Maria, New Literature Pub. Co., Mumbai.
4. Irving Copi, Symbolic Logic (2000), 9th Edition, Colleier Macmillan Publishers, London, Macmillan Publishing Co., Inc., New York.

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