W-3312

M.A/M.Sc. (Fourth Semester) Examination, June-2020
MATHEMATICS
Paper - 402
Advanced Functional Analysis

Time : Three Hours

Maximum Marks : 85 (For Regular Students)

Minimum Pass Marks : 29

Maximum Marks : 100 (For Private Students)

Minimum Pass Marks : 34

Note : Attempt **All** Questions.

Unit-I

Q.1.   State and prove fixed -point theorem and their applications.   17/20

Unit-II

Q.2.   Discuss quotient space of a topological vector space.   17/20

Unit-III

Q.3.   Prove that the product of a countable family of metrizable topological vector space in metrizable.   17/20

Unit-IV

Q.4.   State and prove open mapping theorem for frechet space.   17/20

Unit-V

Q.5.   Discuss Lions-stampacchia theory.   17/20