# GOVERNMENT COLLEGE (Autonomous) KALABURGI

## PG DEPARTMENT OF STUDIES AND RESEARCH IN MATHEMATICS

**Proposed syllabus for M.Sc. in Mathematics**

**Under choice Based Credit System (CBCS)**

**Semester Wise from the Academic year**

**2018-2019 on words**

Approved by Academic council

PRINCIPAL
Govt. College
Kusnoor Road, GULBARGA-585 105

## COURSE STRUCTURE FOR MASTER OF SCIENCE IN MATHEMATICS

### SEMESTER-I

| Course Code | Title of the Paper | Total Credits | Teaching Hours /week | Marks Allocation | | | | | Total Max. Marks |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Internal | | Semester End Exam | | | |
| | | | | Max. Marks | Min. Marks | Duration | Max. Marks | Min. Marks | |
| CCT1.1 | Real Analysis | 4 | 4 | 20 | -- | 3hrs | 80 | 32 | 100 |
| CCT1.2 | Advanced Algebra-I | 4 | 4 | 20 | -- | 3hrs | 80 | 32 | 100 |
| CCT1.3 | Ordinary Differential Equations | 4 | 4 | 20 | -- | 3hrs | 80 | 32 | 100 |
| CCT1.4 | Complex Analysis | 4 | 4 | 20 | -- | 3hrs | 80 | 32 | 100 |
| CCT1.5 | Topology | 4 | 4 | 20 | -- | 3hrs | 80 | 32 | 100 |
| DSET 1.1 | Operation Research | 4 | 4 | 20 | -- | 3hrs | 80 | 32 | 100 |
| DSET 1.2 | Classical Mechanics | 4 | 4 | 20 | -- | 3hrs | 80 | 32 | 100 |
| Note: Student should choose any one subject of DSET IN every Semester. | | | | | | | | | |
| | Total | 24 | | | | | | | 600 |

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COURSE STRUCTURE FOR MASTER OF SCIENCE IN MATHEMATICS

SEMESTER-II

| Course Code | Title of the Paper | Total Credits | Teaching Hours /week | Marks Allocation | | | | | Total Max. Marks |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Internal | | Semester End Exam | | | |
| | | | | Max. Marks | Min. Marks | Duration | Max. Marks | Min. Marks | |
| CCT2.1 | Advanced Algebra – II | 4 | 4 | 20 | -- | 3hrs | 80 | 32 | 100 |
| CCT2.2 | Partial Differential Equations | 4 | 4 | 20 | -- | 3hrs | 80 | 32 | 100 |
| CCT2.3 | Programming in C with ANSI features | 4 | 4 | 20 | -- | 3hrs | 80 | 32 | 100 |
| DSET2.1 | Fuzzy Set and Fuzzy System | 4 | 4 | 20 | -- | 3hrs | 80 | 32 | 100 |
| DSET2.2 | Probability and Statistics | 4 | 4 | 20 | -- | 3hrs | 80 | 32 | 100 |
| CCP2.3 LAB-I | Programming in C with ANSI features | 2 | 4 | 10 | -- | 3hrs | 40 | 16 | 50 |
| GET2.1 | Applied Mathematics-I | 4 | 4 | 20 | -- | 3hrs | 80 | 32 | 100 |
| CCP2.3 LAB-II | Programming in SCILAB | 2 | 4 | 10 | -- | 3hrs | 40 | 16 | 50 |
| | Total | 24 | | | | | | | 600 |

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## COURSE STRUCTURE FOR MASTER OF SCIENCE IN MATHEMATICS

### SEMESTER-III

| Course Code | Title of the Paper | Total Credits | Teaching Hours /week | Marks Allocation | | | | | Total Max. Marks |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Internal | | Semester End Exam | | | |
| | | | | Max. Marks | Min. Marks | Duration | Max. Marks | Min. Marks | |
| CCT3.1 | **Functional Analysis** | 4 | 4 | 20 | -- | 3hrs | 80 | 32 | 100 |
| CCT3.2 | **Computational Numerical Methods-I** | 4 | 4 | 20 | -- | 3hrs | 80 | 32 | 100 |
| CCT3.3 | **Fluid Mechanics-I** | 4 | 4 | 20 | -- | 3hrs | 80 | 32 | 100 |
| DSET 3.2 | **Research Methodology & Mathematical Methods** | 4 | 4 | 20 | -- | 3hrs | 80 | 32 | 100 |
| DSET 3.1 | **Fuzzy Logic and Applications** | 4 | 4 | 20 | -- | 3hrs | 80 | 32 | 100 |
| CCP3.2 LAB-I | **Computational Numerical Methods-I** | 2 | 4 | 10 | -- | 3hrs | 40 | 16 | 50 |
| GET 3.1 | **Operations Research** | 4 | 4 | 20 | -- | 3hrs | 80 | 32 | 100 |
| CCP 3.2 LAB-II | Programming in MATLAB | 2 | 4 | 10 | -- | 3hrs | 40 | 16 | 50 |
| | Total | 24 | | | | | | | 600 |

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