

PROGRAMME PROJECT REPORT (PPR)

M.A. [MATHEMATICS]

- a) **Programme Mission and Objective:** M.A. [Mathematics] is designed through distance mode to promote the scientific temperament of the learners in higher education by providing easy access to all those learners to improve their qualification, skills and competence. The education in M.A. [Mathematics] will be theoretical so that learners will be prepared for a Mathematician as a career for industry and entrepreneurship. Following are the broader objectives of the programme:
- To educate and create the prospective and diverse group of learners of Chhattisgarh with knowledge, analytical ability and importance of Mathematics.
 - The learner will be taught about the scope of Mathematics in day to day life.
 - To be prepared for a lifelong career with primary processing acquiring the skills and experience to undertake appropriate research and study of Mathematics.
 - To make the learners aware of changing environment and scope, in the field of Mathematics to operate in a competitive environment.
 - To seek continuous improvement in individual learning skills and personal development and to work with confident self-direction and originality so as to make a meaningful contribution to society.
- b) **Relevance of the Program with HEI's Mission and Goals:** Pandit Sundarlal Sharma (Open) University Chhattisgarh is committed to endow with assure quality of scientific education to tribal area of learner where regular form of education cannot reach. In the line of the mission of the University, this programme will provide ample of opportunities to those rural and backward learner who are deprived of Maths education and cannot find a place in regular education system. Apart from that it is also open to those who wish to continue their learning irrespective of their rural background and economically poor families.
- c) **Nature of Prospective Target Group of Learners:** The prospective learners can be graduates of arts faculty (with mathematics as a subject), who wishes to pursue their career in the field of mathematics.
- d) **Appropriateness of programme to be conducted in Open and Distance Learning mode to acquire specific skills and competence :** M.A. [Mathematics] is one of the suitable course/programme to be offered through Open and Distance Learning mode. The theory

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and practical knowledge can be thoroughly captured by the learners to acquire the capability.

e) **Instructional Design :**

- i. Duration and Credit: This programme has a duration of two years although learner may complete the programme gradually within a maximum period of four years. The programme has weightage of 72 credits. Contact sessions for every course will be arranged at the study centre where the learners can solve their difficulties.
- ii. Medium: The course material for M.A. programme will be in Hindi language. However learners can opt for both English and Hindi language for answering the questions.
- iii. Course Structure:

**M.A. [Mathematics]
DURATION OF THE COURSE: 2 YEARS**

ELIGIBILITY: ARTS GRADUATE (with mathematics as a subject)

COURSE SYLLABUS

Fundamental course

CURRICULUM TITLE	PAPER	YEAR	CREDIT
Topology	First	First year	8
Real analysis	Second	First year	8
Partial differential Equation	Third	First year	8
Discrete Mathematics	Fourth	First year	8
Operational Research	First	Second year	8
Complex Analysis	Second	Second year	8
Mathematical Statistics	Third	Second year	8
Object Oriented Programming with C++	Fourth	Second year	8
Advance Discrete Mathematics / Dissertation		Second year	8
Total			72

iv. **Dissertation:** Dissertation is an optional course which learners have to undertake provided that:

- a. A Learner obtains 62% or above in previous year examination.

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- b. The dissertation can only be undertaken at University Head Quarter under the supervision of Full Time Faculty or as decided by department concern.
- c. Dissertation shall be of 100 marks, the evaluation of which is based on 70:30 ratio (70% for Project Submission and 30% for Viva-Voce).
- v. **Learning Method:** The learning method developed by University will comprise of independent form of delivery and will constitute the following components:
- Self-Instructional text books (Self Learning Materials).
 - Counselling and contact sessions at the study centre by the subject experts.
 - Preparing the learners Assignment.
- vi. **Means of Delivery:** The learners are given the syllabus of the courses and also the Self learning material. It helps the learners to study a specific topic. If the learner has any difficulty, he or she can make a note of it. They can discuss these noted difficulties with the counsellor during the contact session at the study centre.
- vii. **Requirement of Faculty and Support Staff:** Department of Mathematics is headed by in-charge faculty (permanent nature). Supporting staffs will be deputed at the study centre as per need of the course curriculum.
- f) **Procedure for admissions, curriculum transaction and evaluation :**
- Procedure of Admission:** The admission for this programme will be on yearly basis (or as decided by the University from time to time). All the admissions for the course will be done through online mode. Applications will be invited by the University with in stipulated time period where learners have to apply for the same with all their testimonials and required fees. The minimum eligibility for admission into this programme for the candidates is having passed degree examination of arts faculty (with mathematics as a subject) of Chhattisgarh Higher Education, or any other equivalent examination of a Board or University recognized by Pandit Sundarlal Sharma (open) University Chhattisgarh.
 - Curriculum Transaction:** For successful completion of the proposed programme, a candidate has to obtain minimum pass marks of 40%. Degree will be awarded on the basis of aggregate marks obtained in 1st and 2nd year. Passing in all the years will be an essential criteria for the award of degree.
 - Evaluation Pattern:** The pattern of evaluation for each course from year I to year II of M.A.[Mathematics] programme will have following two components : (a) Continuous Assessment through TMA (b) Dissertation c) Term End Examination (TEE).
 - Continuous Assessment through Tutor Mark Assignment:** For each course in every year the learners performance will be continuously evaluated. Continuous

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assessment schedule and evaluation will be done by the Study Centre which will be monitored by the department concern. The learners have to submit Tutor Mark Assignment (TMA) carrying 30 marks before the Term end examination (TEE) which will be the base of evaluation.

- b) **Dissertation:** Evaluation of this component will be based on dissertation submitted by the learners with viva-voce. Viva-voce will be conducted in the presence of an external examiner.
- c) **Term End Examination (TEE):** Term End Examination (TEE) will be conducted at the end of the learning period through an examination as like other universities. Term End examination (TEE) of each course will be of 70 marks and will be on subjective mode. The questions in the examination will comprise of very short type answer, brief answers and long type answers. The structure of the examination is as under:

Section	Total No. Of Questions	Type of Questions	Marks
A	8 (All Compulsory Questions)	Objective Type	1X8=8
B	6 (4 Should be answered)	Very Short Type	2.5X 4=10
C	4 (3 Should be answered)	Short Type	5X3=15
D	4 (2 Should be answered)	Semi Long Type	10X2=20
E	2 (1 Should be answered)	Long Type	17X1=17
TOTAL	24 (18 Should be answered)		70 Marks

- d) **University Fee Structure:** The fee structure of the M.A. programme is as under:

Details of University Fee (In Rupees)

Particulars	Year I	Year II	Total
Yearly Fees	7100	7100	14200

- g) **Requirement of the laboratory support and Library Resources:** Laboratory is not required for this course. Resources in the form of reference books and Journals will be made available to the learners in the University Central library, which they can access for gaining knowledge.
- h) **Cost estimate of the programme and the provisions:** For the design, development delivery and maintenance of the programme the fund will be as per the budget allocated by the University in its Annual Budget session.
- i) **Quality assurance mechanism and expected programme outcomes:** The monitoring of the programme will be done on continuous basis by the department concern. Regular updating of the curriculum and syllabus will be checked by the concerned board of studies and regular monitoring will be done by Centre for Internal Quality Assurance (CIQA) of the University. Learners will be asked to provide their feedback on continuous basis to develop suitable action plans for the programme and will be duly incorporated into the teaching and delivery system.

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