

KAKATIYA UNIVERSITY
M. Sc (APPLIED MATHEMATICS)

Semester I/II/III/IV

Scheme of Instruction and Examination

(With effect from 2019-2020 batch)

SEMESTER-I

Paper	Code of The paper	Title of The paper	No. of Periods (1 hr duration) per week	Internal Assessment Marks	Semester End Exam Marks			Credits (L+P)
					Theory	Practical	Total	
I	AM1CP1	Algebra	6	20	80	-	100	5
II	AM1CP2	Real Analysis	6	20	80	-	100	5
III	AM1CP3	Ordinary Differential Equations	6	20	80	-	100	5
IV	AM1CP4	Discrete Mathematics	6	20	80	-	100	5
V	AM1CP5	Fundamentals of Statistics	6	20	80	-	100	5
		Seminar	2				25	1
					Total Credits			26

SEMESTER-II

Paper	Code of The paper	Title of The paper	No. of Periods (1 hr duration) per week	Internal Assessment Marks	Semester End Exam Marks			Credits (L+P)
					Theory	Practical	Total	
I	AM2CP1	Classical Mechanics	6	20	80	-	100	5
II	AM2CP2	Mathematical Analysis	6	20	80	-	100	5
III	AM2CP3	Topology	6	20	80	-	100	5
IV	AM2CP4	Complex Analysis	6	20	80	-	100	5
V	AM2CP5	Special Functions	6	20	80	-	100	5
		Seminar	2				25	1
					Total Credits			26

SEMESTER-III

Paper	Code of The paper	Title of The paper	No. of Periods (1 hr duration) per week	Internal Assessment Marks	Semester End Exam Marks			Credits (L+P)
					Theory	Practical	Total	
I	AM3CP1	Measure and Integration	6	20	80	-	100	5
II	AM3CP2	Mechanics of Solids	6	20	80	-	100	5
III	AM3CP3	Partial Differential Equations	6	20	80	-	100	5
IV	AM3OP4(1)	Mathematical Modelling	6	20	80	-	100	5
	AM3OP4(2)	Numerical Analysis	6	20	80	-	100	5
	AM3OP4(3)	Automata and Languages	6	20	80	-	100	5
	AM3OP4(4)	Advanced Complex Analysis	6	20	80	-	100	5
V	AM3OP5(1)	Computer fundamentals and Programming in C	7(4+3)	20	60	20	100	4(L) + 1(P)
	AM3OP5(2)	Office automation and C Language	7(4+3)	20	60	20	100	4(L) + 1(P)
	AM3OP5(3)	Numerical Analysis using C	7(4+3)	20	60	20	100	4(L) + (P)
		Seminar	2				25	1
					Total Credits			26

SEMESTER-IV

Paper	Code of The paper	Title of The paper	No. of Periods (1 hr duration) per week	Internal Assessment Marks	Semester End Exam Marks			Credits (L+P)
					Theory	Practical	Total	
I	AM4CP1	Functional Analysis	6	20	80	-	100	5
II	AM4CP2	Fluid Dynamics	6	20	80	-	100	5
III	AM4CP3	Integral Equations and Transforms	6	20	80	-	100	5
IV	AM4OP4(1)	Bio Mechanics	6	20	80	-	100	5
	AM4OP4(2)	Graph Theory						5
	AM4OP4(3)	Operations Research	6	20	80	-	100	5
	AM4OP4(4)	Computational Methods for Partial Differential Equations	6	20	80	-	100	5
	AM4OP4(5)	Automata and Machines	6	20	80	-	100	5
	AM4OP4(6)	Theory of Reliability	6	20	80	-	100	5
V	AM4OP5(1)	Programming Methodology	7(4+3)	20	60	20	100	4(L) +1(P)
	AM4OP5(2)	Programming in C++						
	AM4OP5(3)	Applied Stochastic Process with MATLAB	7(4+3)	20	60	20	100	4(L) + 1(P)
		Seminar	2				25	1
					Total Credits			26

L →Lecture, P→ Practical, AM→ Applied Mathematics, CP→ Core Paper, OP→ Optional Paper

Summary

Semester	No. of Credits	Marks
I	26	525
II	26	525
III	26	525
IV	26	525
Total	104	2100

The Scheme of 1st Internal Assessment of each paper of Semester-I to IV is as follows:

KAKATIYA UNIVERSITY

M. Sc (Applied Mathematics) (w.e.f 2019-20)
1st Internal Assessment Examination
Semester-I/II/III/IV
Papers I/ II/ III/ IV/ V

Time: 1 ½ Hours

Max Marks: 15.

Answer Any five of the following questions.
All questions carry equal marks.

1. A question from unit-I
2. A question from unit-I
3. A question from unit-I
4. A question from unit-I
5. A question from unit-II
6. A question from unit-II
7. A question from unit-II
8. A question from unit-II

Note: Five Marks will be awarded from assignments given to the students

The Scheme of 2nd Internal Assessment of each paper of Semester-I to IV is as follows:

KAKATIYA UNIVERSITY
M. Sc (Applied Mathematics) (w.e.f 2019-20)
2nd Internal Assessment Examination
Semester-I/II/III/IV
Papers I/ II/ III/ IV/ V

Time: 1 ½ Hours

Max Marks: 15.

Answer Any five of the following questions.
All questions carry equal marks.

1. A question from unit-III
2. A question from unit-III
3. A question from unit-III
4. A question from unit-III
5. A question from unit-IV
6. A question from unit- IV
7. A question from unit- IV
8. A question from unit- IV

Note: Five Marks will be awarded from assignments given to the students

The scheme of the examination of each paper of Semester I to IV is as follows.

KAKATIYA UNIVERSITY
M. Sc (Applied Mathematics)
(w.e.f 2019-20)
Semester-I/II/III/IV
Papers I/ II/ III/ IV/ V

Time: 3 Hours

Max Marks: 80/60*

*for papers having practical examination

Answer all Questions.
All Questions carry equal Marks.

1. a) A short question From Unit-I.
a.) A short question From Unit-II.
b.) A short question From Unit-III.
c.) A short question From Unit-IV.

2. Answer any two of the following.
a) From Unit-I.
b) From Unit-I.
c) From Unit-I.
d) From Unit-I.

3. Answer any two of the following.
a) From Unit- II.
b) From Unit-II.
c) From Unit-II.
d) From Unit-II.

4. Answer any two of the following.
a) From Unit-III.
b) From Unit-III.
c) From Unit-III.
d) From Unit-III.

5. Answer any two of the following.
a) From Unit-IV.
b) From Unit-IV.
c) From Unit-IV.
d) From Unit-IV.