



SHIVAJI UNIVERSITY KOLHAPUR

Circular No. (566) Winter Session Offline Exam of Oct/Nov.-2023 to be held in Oct./Nov.-2023.

Draft Programme of the M.Sc. Mathematics Part-I (Sem.- I) NEP-2020 Course Code-2375 & Part-I & II (Sem.- I to Sem.-IV) Course Code- 2353 ,2341 & 205.

M.Sc. Mathematics with Computer Application Part-I (Sem.- I) NEP-2020 Course Code-2374 & M.Sc. Tech. (Industrial Mathematics with Computer Application) Part-I & II (Sem. To Sem.- III) Course Code- 2355 & 252. & course code 252 M.Sc. Tech. Part-II & III (Sem.- III to V) Examination Oct/Nov -2023 to be held in Oct/Nov/Dec. -2023

INSTRUCTIONS-Common instruction as per Circular No. SU/Appointment/RVC/29

Dated 01/02/2020 and also available in University website www.unishivaji.ac.in

The Written Examination will be held at following center and Places declared:-

Sr. No	Exam	College Code	Places
1	M.Sc. Mathematics M.Sc. Tech. (Industrial Mathematics with Computer Application)	264	Department of Mathematics, Shivaji University Kolhapur
2	M.A./M.Sc. Mathematics		Department of Distance Education, Kolhapur
3	M.Sc. Physics, M.A./M.Sc. Mathematics	01	Vivekanand College, Kolhapur
4	M.A./M.Sc. Mathematics	50	Yashawantrao Chavan Warna Mahavidyalaya, WARNANAGAR
5	M. Sc Physics M.A./M.Sc. Mathematics	30	The New College Kolhapur
6	M.A./M.Sc. Mathematics M.A./M. Sc. Geography M.Sc. Information Technology	90	Karmveer Bhaurao Patil College, URUN –ISLAMPUR.
7	M.Sc. Physics, M.A./M.Sc. Mathematics	80	Willingdon College, SANGLI
8	M.A./M. Sc. Geography, Industrial Microbiology, M. Sc.. Statistics, M.A./M. Sc.. Mathematics,	156	Sadguru Gadage Maharaj College, KARAD
9	M.sc Physics, Statistics, M.A./M.Sc.. Mathematics	149	Yashwantrao Chavan Institute of Science, SATARA.

Note:- In case of any Query found in respective Question Paper, student shall communicate the same through Principal / Senior Supervisor within 03 days from the date of concerned Question paper to, Deputy Registrar, Appointment Section, Room No. 205 Exam Building No. 1 Shivaji Univeristy, Kolhapur- 416004.

Branch Code- M.A/M.Sc. Mathematics [NEP-2020]				From Oct—2023]
		Part I :- Sem.-I		
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	Morning
Major Mandatory				
I	92492	Linear Algebra	Monday 11/12/2023	10:30 A.M. To 01:30 P.M.
II	92493	Real Analysis	Thursday 14/12/2023	
III	92494	Ordinary Differential Equations	Saturday 25/11/2023	
IV	92495	Numerical Analysis	Monday 04/12/2023	
Research Methodology				
V	93744	Research Methodology	Tuesday 28/11/2023	
Major Elective Any One Of The Following Paper				
VI	92383	Differential Geometry	Wednesday 29/11/2023	10:30 A.M. To 01:30 P.M.
	92384	Integral Transforms	Thursday 30/11/2023	
	92385	Theory of Computation	Tuesday 21/11/2023	
	92386	Graph Theory-I	Tuesday 20/11/2023	
	92387	Lattice Theory-I	Monday 18/12/2023	
	92388	Dynamical Systems- I	Wednesday 22/11/2023	
	92496	Combinatorics	Thursday 7/12/2023	
	92389	Basics of Python	Thursday 23/11/2023	
	92390	Web Technology	Friday 24/11/2023	
	92497	Linear Programming and Its Application	Tuesday 11/12/2023	

M.A./M.Sc. Mathematics [NEP-2020]

(Course Code -2353)

Branch Code- M.A/M.Sc. Mathematics [NEP-2020]			From Oct—2022	
		Part I :- Sem.-I		
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	Morning
I	87751	Advanced Calculus	Wednesday 13/12/2023	10:30 A.M. To 01:30 P.M.
II	87752	Linear Algebra	Monday 11/12/2023	
III	87753	Complex Analysis	Wednesday 20/12/2023	
IV	87754	Classical Mechanics	Saturday 16/12/2023	
V	87755	Ordinary Differential Equations	Saturday 25/11/2023	
Choose Any One Of The Following Paper				
VI	87756	Number Theory	Friday08/12/2023	
	87853	Mathematical Methods	Friday 08/12/2023	

M.A./M.Sc. Mathematics (C.B.C.S.)

(Course Code -2341)

Branch Code- M.A/M.Sc. Mathematics				From Oct—2019
		Part I :- Sem.-I		
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	Morning
I	83480	Advanced Calculus	Wednesday 13/12/2023	10:30 A.M. To 01:30 P.M.
II	83481	Linear Algebra	Monday 11/12/2023	
III	83482	Complex Analysis	Wednesday 20/12/2023	
IV	83483	Classical Mechanics	Saturday 16/12/2023	
V	83484	Ordinary Differential Equations	Saturday 25/11/2023	

M.A/M.Sc. Mathematics (C.B.C.S.) [NEP-2020]

(Course Code -2353)

Branch Code - M.A/M.Sc. Mathematics (C.B.C.S.) [NEP-2020]				From March-2023
		Part I - Sem II		
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	Morning
VII	87757	Real Analysis	Thursday 14/12/2023	10:30 A.M. To 01:30 P.M.
VIII	87758	Algebra	Wednesday 29/11/2023	02:30 P.M. To
XIX	87759	Topology	Tuesday 19/12/2023	05:30 P.M.
X	87760	Numerical Analysis	Monday 04/12/2023	10:30 A.M. To 01:30 P.M.
XI	87761	Partial Differential Equations	Friday 01/12/2023	02:30 P.M. To 05:30 P.M.
Choose Any One Of The Following Paper				10:30 A.M. To
XII	87762	Operations Research	Wednesday 06/12/2023	01:30 P.M.
	90173	Integral Transforms		

M.A/M.Sc. Mathematics (C.B.C.S.) New)

(Course Code- 2341)

Branch Code - M.A/M.Sc. Mathematics (C.B.C.S.) (From April-2022)				
		Part I - Sem II		
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	Morning
VI	84592	Functional Analysis	Friday 24/11/2023	02:30 P.M. To 05:30 P.M.
VII	84593	Algebra	Wednesday 29/11/2023	
VIII	84594	General Topology	Tuesday 19/12/2023	
IX	84595	Numerical Analysis	Monday 04/12/2023	10:30 A.M. To 01:30 P.M.
X	84596	Partial Differential Equations	Friday 01/12/2023	02:30 P.M. To 05:30 P.M.

M.A/M.Sc. Mathematics (C.B.C.S.) New

(Course Code- 2353)

Branch Code - M.A/M.Sc. Mathematics (C.B.C.S.)				From March-2022
		Part II - Sem III		
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	Morning
XI	90885	Functional Analysis	Friday 24/11/2023	02:30 P.M. To 05:30 P.M.
Any one of the following				10:30 A.M. To 01:30 P.M.
XII	90886	Advanced Discrete Mathematics	Tuesday 28/11/2023	
	92093	Topological Vector Spaces	Tuesday 19/12/2023	
XIII, XIV & XV Any Three of the following Papers				
	92096	Lattice Theory – I	Monday 18/12/2023	
	92104	Algebraic Topology	Tuesday 19/12/2023	
	92102	Space Dynamics- I	Saturday 02/12/2023	
	92106	Coding Theory	Saturday 25/11/2023	
	90887	Non-linear Optimization Techniques		
	92098	Dynamical Systems – I	Wednesday 22/11/2023	
	92101	Commutative Algebra - I		
	90889	Fluid Dynamics	Tuesday 05/12/2023	
	92105	Probability and Stochastic Processes		
	92095	General Relativity – I	Thursday 07/12/2023	
	90890	Combinatorics		
	92094	Fractional Calculus	Thursday 30/11/2023	
	90888	Fuzzy Mathematics –I	Saturday 09/12/2023	
	92097	Approximation Theory	Tuesday 12/12/2023	
	92103	Theory of Computation	Tuesday 21/11/2023	
	92100	Differential Geometry	Wednesday 29/11/2023	
	92099	Graph Theory-I	Monday 20/11/2023	

Branch Code - M.A/M.Sc. Mathematics (C.B.C.S.)				From March-2022
		Part II - Sem III		
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	Morning
XI	85386	Real Analysis	Thursday 14/12/2023	10:30 A.M. To 01:30 P.M.
Any one of the following				
XII	85387	Advanced Discrete Mathematics	Tuesday 28/11/2023	
	85388	Topological Vector Spaces	Tuesday 19/12/2023	
XIII, XIV & XV Any Three of the following Papers				
	85395	Lattice Theory – I	Monday 18/12/2023	
	85404	Algebraic Topology	Monday 18/12/2023	
	85402	Space Dynamics- I	Saturday 02/12/2023	
	85389	Number Theory	Friday 08/12/2023	
	85403	Theory of Computation	Tuesday 21/11/2023	
	85397	Dynamical Systems – I	Wednesday 22/11/2023	
	85401	Commutative Algebra - I		
	85392	Fluid Dynamics	Tuesday 05/12/2023	
	85405	Probability and Stochastic Processes		
	85394	General Relativity – I	Thursday 07/12/2023	
	85400	Combinatorics		
	85393	Fractional Calculus	Thursday 30/11/2023	
	85391	Fuzzy Mathematics –I	Saturday 09/12/2023	
	85396	Approximation Theory	Tuesday 12/12/2023	
	85390	Operations Research – I	Wednesday 06/12/2023	
	85399	Differential Geometry	Wednesday 29/11/2023	
	85398	Graph Theory-I	Monday 20/11/2023	

Branch Code- M.A/M.Sc. Mathematics (C.B.C.S.)				From March—2023
		Part II :- Sem.-IV		
PAPE R NO.	PAPER CODE	PAPER NAME	DAY & DATE	Evening
	86711	Integral Equations	Monday 18/12/2023	02:30 P.M. To 05:30 P.M.
	86712	Field Theory	Thursday 07/12/2023	
Paper No. – XVIII, XIX & XX – Choose any Three of the following				
	86714	Algebraic Number Theory	Tuesday	
	90542	Automatic Languages and computation	12/12/2023	
	86715	Operations Research –II	Tuesday 19/12/2023	
	90541	Automata Theory		
	86716	Fuzzy Mathematics-II	Monday 11/12/2023	
	90540	Theory of Distributions		
	86717	Computational Fluid Dynamics	Wednesday 20/12/2023	
	90539	Analysis on Manifolds		
	86718	Fractional Differential Equations	Saturday 16/12/2023	
	90538	Graph Theory-II		
	86719	Wavelet Analysis	Tuesday 21/11/2023	
	90537	Dynamical Systems- II		
	86720	Commutative Algebra-II	Wednesday	
	86721	Space Dynamics-II	13/12/2023	
	86722	Dynamics Equation on Time Scales	Friday	
	90536	Lattice Theory-II	15/12/2023	
	90535	General Relativity-II	Saturday 25/11/2023	

Branch Code- M.A/M.Sc. Mathematics (C.B.C.S.)			From April—2020	
		Part II :- Sem.-IV		
PAPE R NO.	PAPER CODE	PAPER NAME	DAY & DATE	Evening
	69567/63326/ 83058	Field Theory	Thursday 07/12/2023	02:30 P.M. To 05:30 P.M.
	83057	Integral Equations	Monday 18/12/2023	
Paper No. – XVIII, XIX & XX – Choose any Three of the following				
	83059	Algebraic Number Theory	Tuesday 12/12/2023	
	85481	Automatic Languages and computation		
	83060	Operations Research –II	Tuesday 19/12/2023	
	85480	Automata Theory		
	83061	Fuzzy Mathematics-II	Monday 11/12/2023	
	85479	Theory of Distributions		
	83062	Computational Fluid Dynamics	Wednesday 20/12/2023	
	85478	Analysis on Manifolds		
	83063	Fractional Differential Equations	Saturday 16/12/2023	
	85477	Graph Theory-II		
	83066	Wavelet Analysis	Tuesday 21/11/2023	
	85476	Dynamical Systems- II		
	85254	Advanced Algebra		
	83072	Commutative Algebra-II	Wednesday 13/12/2023	
	83073	Space Dynamics-II		
	83074	Dynamics Equation on Time Scales	Friday 15/12/2023	
	85475	Lattice Theory-II		
	85474	General Relativity-II	Saturday 25/11/2023	
	85253	Introduction to Cryptology		

Branch Code- M.Sc. (Mathematics with Computer Application)				From Oct—2023
		Part I :- Sem.-I		
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	Morning
Major Mandatory				
I	91787	Linear Algebra	Monday 11/12/2023	10:30 A.M. To 01:30 P.M.
II	91788	Object Oriented Programming	Friday 01/12/2023	
III	91789	Database Management System	Saturday 09/12/2023	
IV	91790	Numerical Analysis	Monday 04/12/2023	
Research Methodology				
V	91801	Research Methodology	Tuesday 28/11/2023	
Major Elective Any One Of The Following Paper				
VI	91791	Combinatorics	Thursday 07/12/2023	
	91792	Differential Geometry	Wednesday 29/11/2023	
	91793	Integral Transforms	Thursday 30/11/2023	
	91794	Theory of Computation	Tuesday 21/11/2023	
	91795	Graph Theory-I	Monday 20/11/2023	
	91796	Lattice Theory-I	Monday 18/12/2023	
	91798	Dynamical Systems- I	Wednesday 22/11/2023	
	91797	Linear Programming and Its Application	Tuesday 05/12/2023	
	91799	Basics of Python	Saturday 16/12/2023	
	91800	Web Technology	Friday 24/11/2023	

M.Sc. Tech. (Industrial Mathematics with Computer Application) [NEP-2020]
(Course Code- 2355)

Branch Code- M.Sc. Tech. (Industrial Mathematics with Computer Application) From Oct--2022				
		Part I :- Sem.-I		
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	Morning
V	88608	Advanced Calculus	Wednesday 13/12/2023	10:30 A.M. To 01:30 P.M.
III	88609	Linear Algebra	Monday 11/12/2023	
I	88610	Discrete Mathematical Structures-I	Saturday 02/12/2023	
IV	88611	Computer Architecture	Tuesday 28/11/2023	
II	88612	Object Oriented Programming	Friday 01/12/2023	

M.Sc. Tech. (Industrial Mathematics with Computer Application) [NEP-2020]
(Course Code- 2355)

Branch -M.Sc. Tech. (Industrial Mathematics with Computer Application) Revised From March-2023)				
		Part I :- Sem.-II		
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	Morning
VI	88614	Numerical Analysis	Monday 04/12/2023	10:30 A.M. To 01:30 P.M.
VII	88615	Algebra	Wednesday 29/11/2023	02:30 P.M. To 05:30 P.M.
VIII	88616	Discrete Mathematical Structures-II	Tuesday 12/12/2023	
IX	88617	Data Structures	Friday 15/12/2023	
X	88618	Database Management System	Saturday 09/12/2023	10:30 A.M. To 01:30 P.M.

M.Sc. TECH (MATHEMATICS) (C.B.C.S.) New **(Course Code- 252)**

Branch Code - M.Sc. TECH (MATHEMATICS) (C.B.C.S.) (Revised April-2019)				
		Part I :- Sem.-II		
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	Morning
VI	71460	Functional Analysis	Friday 24/11/2023	10:30 A.M. To 01:30 P.M.
VII	71461	Algebra	Wednesday 29/11/2023	02:30 P.M. To 05:30 P.M.
VIII	71464	Operating Systems	Friday 08/12/2023	10:30 A.M To 01:30 P.M
IX	71463	Data Structures Using-C	Friday 15/12/2023	02:30 P.M. To 05:30 P.M.
X	71462	Discrete Mathematical Structures-II	Tuesday 12/12/2023	

M.Sc. Tech. (Industrial Mathematics with Computer Application)
(Course Code- 2355)

Branch Code -M.Sc. Tech. (Industrial Mathematics with Computer Application (From Oct-2023)				
		Part II :- Sem.-III		
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	Morning
XI	91502	Complex Analysis	Wednesday 20/12/2023	10:30 A.M. To 01:30 P.M.
XII	91503	Ordinary Differential Equations	Saturday 25/11/2023	
XIII	91504	Design and Analysis of Algorithms-I	Wednesday 06/12/2023	
V	91505	Operating System	Friday 08/12/2023	
III	91507	Python Programming	Saturday 16/12/2023	

M.Sc. TECH (MATHEMATICS) (C.B.C.S.) **(Course Code- 252)**

Branch Code - M.Sc. TECH (MATHEMATICS) (C.B.C.S.) (From Oct-2019)				
		Part II :- Sem.-III		
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	Morning
XI	74024	Complex Analysis	Wednesday 20/12/2023	10:30 A.M. To 01:30 P.M.
XII	74025	ODE	Saturday 25/11/2023	
XIII	74026	DAA-I	Tuesday 28/11/2023	
V	74027	Database System	Saturday 09/12/2023	
III	74028	Object Oriented Programming with C++	Friday 01/12/2023	

M.Sc. TECH (MATHEMATICS) (C.B.C.S.) **(Course Code- 252)**

Branch Code - M.Sc. TECH (MATHEMATICS) (C.B.C.S.) From Oct-2020				
		Part II :- Sem.-IV		
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	Evening
I	79483	Real Analysis	Thursday 14/12/2023	10:30 A.M. To 01:30 P.M.
II	79884	Operation Research	Wednesday 06/12/2023	10:30 A.M. To 01:30 P.M.
IV	79485	DAA-II	Thursday 30/11/2023	2.30 P.M. To 5.30P.M.
V	79486	PHP With My SQL	Saturday 02/12/2023	2.30 P.M. To 5.30P.M.
VI	79487	Java Programming	Tuesday 05/12/2023	

Branch Code - M.Sc. TECH (MATHEMATICS) (C.B.C.S.)				From Oct-2020
		Part III :- Sem.-V		
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	Morning
I	81119	Advanced Web Technology	Monday 04/12/2023	10:30 A.M. To 01:30 P.M.
II	81120	Software Engineering	Friday 08/12/2023	
III	81121	Computer Networks	Monday 11/12/2023	
IV	81122	Cyber Security	Saturday 16/12/2023	
Paper No. V- Choose any One of the following				
	81123	Compiler Techniques	Monday 18/12/2023	
	81124	Linux Operating System	Monday 18/12/2023	
	81125	Android Programming	Monday 18/12/2023	
	81126	Machine Learning	Monday 18/12/2023	

Vidyanagar,
Kolhapur – 416 004
Date :- 19 Oct- 2023

Sd/-
Dr. Ajitsinh. N. Jadhav
DIRECTOR
BOARD OF EXAMINATIONS AND EVALUATION