



## SHIVAJI UNIVERSITY KOLHAPUR

**Final Exam Revised Programme** Circular No. 1085 Summer Session

Online/Offline Exam of March-2020

Faculty : Science and Technology

**Course: M.Sc. Examination Regular Pattern**

Part -II Sem-IV Examination April/May 2020 to be held Oct-2020

**INSTRUCTIONS**-Common instruction as per Circular No.SU/Appointment/RVC/301,304, 305 Dated 13<sup>th</sup>, 14<sup>th</sup> & 16<sup>th</sup> September 2020, and also available in University website [www.unishivaji.ac.in](http://www.unishivaji.ac.in)

The Centers and Places of the Examination will be as under.

1- The Offline Examination Place will be held at:

Sr. No	Center	College Code	Exam	Places
1	KOLHAPUR	547	M.sc Physics	Department of Physics, Shivaji University KOLHAPUR.
		549	M.A./M.Sc. Mathematics	Department of Mathematics, Shivaji University KOLHAPUR.
		573	M.A./M.Sc. Mathematics	Department of Distance Education, KOLHAPUR
		550	M.Sc Statistics & Applied Statistics and Information	Department of Statistics, Shivaji University KOLHAPUR
		551	M.Sc Environmental Science	Department of Environmental Science, KOLHAPUR
		571	M.Sc Food Science & Technology	Department of Food Science & Technology, KOLHAPUR
		540	M.A./M.Sc Geography	Department of Geography, Shivaji University KOLHAPUR.
		1	M.Sc. Physics, M.A./M.Sc. Mathematics	Vivekanand College, KOLHAPUR
		50	M.A./M.Sc. Mathematics	Yashwantrao Chavan Warna Mahavidyalaya, WARNANAGAR
		48	M.Sc Physics	Devchand College, ARJUNNAGAR
2	URUN-ISLAMPUR	90	M.A./M.Sc. Mathematics	Karmveer Bhaurao Patil College, URUN – ISLAMPUR.
		444	M.Sc Alcohol Technology & Sugar Technology	Rajarambapu College of Sugar Technology, URUN-ISLAMPUR
		90	M.A./M.Sc. Mathematics	Karmveer Bhaurao Patil College, URUN – ISLAMPUR.
3	SANGLI	78	M.Sc. Physics	Smt. Kasturabi Walchand College of Arts & Science, SANGLI.
		80	M.Sc. Physics, M.A./M.Sc. Mathematics	Willingdon College, SANGLI
		94	M.Sc. Physics	Raje Ramrao Mahavidyalaya, JATH
		92	M.A./M. Sc. Geography, Statistics	Padm. Bhushan Dr. Vasantraodada Patil Mahavidyalaya, TASGAON
		84	M.A./M. Sc. Geography	Miraj Mahavidyalaya, Miraj
4	KARAD	156	M.A./M. Sc. Geography, Industrial Microbiology, Statistics, M.A./M. Sc.. Mathematics,	Sadguru Gadage Maharaj College, KARAD
		153	M.A./M. Sc. Geography	Mahila Mahavidyalaya, KARAD
5	SATARA	259	M.A./M.Sc Geography	Chhatrapati Shivaji College, SATARA
		149	M.sc Physics, Statistics, M.A./M.Sc. Mathematics	Yashwantrao Chavan Institute of Science, SATARA.
		173	M.A./M.Sc Geography	Raja Shripatrao Bhagawantrao Mahavidyalaya, AUNDH
		162	M.A./M.Sc Geography	D.P. Bhosale College, Koregaon., KOREGAON

2. The Online/Offline examination schedule will be conducted in following order:

**M.Sc. Physics [ C.B.C.S.] Old**

**Exam Center & College Code :-**

**(Kolhapur-547 & 1, Urun-Islampur-88, Sangli-78 & 94, Satara-149)**

Branch Code		- PHYSICS ( C.B.C.S.)		From-(Oct-2015)
		Part II :- Semester IV		
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	PAPER TIME
XIII	65031	Experimental Techniques	Saturday - 24.10.2020	01.30.PM To 02.30PM
XIV Choice Base Paper (Any One Paper)	PAPER NO. XIV:- Choose Any One Of The Following Paper		Wednesday-21.10.2020	
	65141	Electronic Devices		
	65062	Computational Methods And Programming		
	65063	Special Materials		
Paper No. XV – Choose Any One of The Following	68287	Modern Analytical Techniques	Thursday- 22.10.2020	
	65032	Energy Science –III (Renewable Energy Resources)		
	65033	Material Science – III (Mechanical Properties and Liquid Crystals)		
	65035	Modern Optics – III ( Laser and its Applications)		
	65036	Space Science – III ( Solar Wind and its Interaction with Planets and Satellites)		
	65034	Solid State Physics – III (Physical Properties of Solids)		
Paper No. XVI – Choose Any One of The Following Subject	65037	Theoretical Physics –III (Interaction of Electromagnetic Waves with Electron Beams and Plasmas )	Friday - 23.10.2020	
	65039	Energy Science – IV (Energy Conversion Devices)		
	65040	Material Science – IV (Special Materials)		
	65042	Modern Optics – IV (Holography)		
	65043	Space Science – IV (Solar terrestrial Physics & Space Applications)		
	65041(Old)	Solid State Physics – IV (Semiconductor Physics)		
	65038	Theoretical Physics –IV (Quantum Field Theory-2)		
66765(New)	Solid State Physics-IV (Energy Conversion & Storage Devices)			

## M.Sc. Physics [ C.B.C.S.] New

**Exam Center & College Code :- (Kolhapur-547 & 1, Urun-Islampur-88, Sangli-78 & 94, Satara-149)**

Branch Code - PHYSICS ( C.B.C.S.)			From-(March-2020)		
		Part II :- Semester IV			
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	PAPER TIME	
X	79340	Experimental Techniques	Saturday - 24.10.2020	01.30.PM  To  02.30PM	
<b>Any one Paper</b>					
	68287	Modern Analytical Techniques	Wednesday-21.10.2020		
	79343	Electronic Devices			
	79341	Numerical Methods And Programming			
	79342	MATI AB Programming and Applications			
	79515	Media And Society			
Elective Papers (Any Four Paper)					
	79344	Renewable Energy Resources	Thursday- 22.10.2020		
	79345	Energy Conversion Devices	Friday - 23.10.2020		
	79346	Special Materials	Thursday- 22.10.2020		
	79347	Nanostructured Materials	Friday - 23.10.2020		
	79348	Molecular Spectroscopy	Thursday- 22.10.2020		
	79349	Holography and Its Applications	Friday - 23.10.2020		
	79350	Magnetospheric Plasma Dynamics	Thursday- 22.10.2020		
	79351	Ionospheric and Space Weather	Friday - 23.10.2020		
	79352	Physical Properties of Solids	Thursday- 22.10.2020		
	79353	Energy Conversion and Storage Devices	Friday - 23.10.2020		
	79354	Interaction of Electromagnetic waves with Electron Beams & Plasmas	Thursday- 22.10.2020		
	79355	Introduction to Quantum Field Theory	Friday - 23.10.2020		

## M.Sc. Statistics [ C.B.C.S. ]

**Exam Center & College Code :- (Kolhapur-550, Sangli-92 & Satara-149)**

Branch Code - STATISTICS ( C.B.C.S.)			From April-2018		
		Part II :- Sem.-IV			
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	PAPER TIME	
XVI	71107	Optimization Techniques (OT)	Monday- 02.11.2020	01.30.PM  To  02.30PM	
<b>Paper No. XVII &amp; XX :- Choose Any Four of the Following Papers</b>					
	71109	Generalized Linear Models	Wednesday- 21.10.2020		
	71110	Survival Analysis(SA)	Thursday- 22.10.2020		
	71111	Data Mining (DM)	Friday - 23.10.2020		
	71112	Statistical Quality Control	Saturday- 24.10.2020		
	71113	Time Series Analysis (TSA)	Monday- 26.10.2020		

**M.Sc. Applied Statistics & Informatics [ C.B.C.S. ] Old  
Exam Center & College Code :- (Kolhapur-550)**

Branch Code - APPLIED STATISTICS & INFORMATICS ( C.B.C.S.)				From April-2015
Part II :- Sem.-IV				
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	PAPER TIME
XVI	65070	Optimization Techniques	Monday- 02.11.2020	01.30.PM To 02.30PM
XVII	65071	Discrete Data Analysis	Wednesday- 21.10.2020	
XX	65077	Data Warehousing and Data Mining	Friday - 23.10.2020	
XVIII	65073	Time Series Analysis	Monday- 26.10.2020	
XIX	65075	Industrial Statistics	Saturday- 24.10.2020	

**M.Sc. APPLIED STATISTICS & INFORMATICS ( C.B.C.S.) New**

**Exam Center & College Code :- (Kolhapur-550)**

Branch Code - APPLIED STATISTICS & INFORMATICS ( C.B.C.S.)				From April-2020
Part II :- Sem.-IV				
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	PAPER TIME
	79378	Optimization Techniques	Monday- 02.11.2020	01.30 PM To 02.30 PM
	79379	Python for Data Science	Thursday- 22.10.2020	
<b>Choose Any Three of the Following Papers</b>				
	79381	Generalized Linear Models	Wednesday-21.10.2020	
	79382	Survival Analysis	Thursday- 22.10.2020	
	79387	Data Mining	Friday - 23.10.2020	
	79384	Time Series Analysis	Monday- 26.10.2020	
	79383	Statistical Quality Control	Saturday- 24.10.2020	
	79385	Statistical Ecology	Wednesday-28.10.2020	
	79386	Econometrics	Thursday- 29.10.2020	
	79388	Bioinformatics	Saturday - 31.10.2020	

**M.Sc. Environmental Science ( C.B.C.S. )**

**Exam Center & College Code :- (Kolhapur-551)**

Branch Code - ENVIRONMENTAL SCIENCE (C.B.C.S.)				From April-2015
Part II :- Sem.-IV				
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	PAPER TIME
XIII	65019	Socio- Economic Aspects of Environment	Saturday - 24.10.2020	From 04.00 PM To 05.00PM
XIV	65020	Environmental Hazards and Disaster Management	Monday - 26.10.2020	
XV	65021	Environmental Planning and Management	Tuesday- 27.10.2020	
XVI	65022	Environmental Biotechnology	Wednesday-28.10.2020	

**M.Sc. Food Science & Technology [ C.B.C.S.]**

**Exam Center & College Code :- (Kolhapur-571)**

<b>Branch Code - FOOD SCIENCE &amp; TECHNOLOGY ( C.B.C.S.)</b>				
<b>From April-2015</b>				
<b>Part II :- Sem.-IV</b>				
<b>PAPER NO.</b>	<b>PAPER CODE</b>	<b>PAPER NAME</b>	<b>DAY &amp; DATE</b>	<b>PAPER TIME</b>
XIII	65134	Food Packaging	Thursday- 22.10.2020	From 04.00 PM To 05.00 PM
XIV	65135	Technology of Oilseeds & Fats	Saturday - 24.10.2020	
XV	65136	Food Biotechnology	Friday - 23.10.2020	
XVI	65137	Post-Harvest Technology of Plantation Crops	Wednesday-21.10.2020	

**M.Sc Alcohol Technology ( C.B.C.S. )**

**Exam Center & College Code :- (Urun Islampur-444)**

<b>Branch Code - Alcohol Technology ( C.B.C.S. )</b>					
<b>(From Oct-2018)</b>					
<b>Part II - Sem IV</b>					
<b>PAPER NO.</b>	<b>PAPER CODE</b>	<b>PAPER NAME</b>	<b>DAY &amp; DATE</b>	<b>PAPER TIME</b>	
I	68644	Alcohol & Beverages production from grain and other sources	Friday - 23.10.2020	From 04.00.PM To 05.00 PM	
II	68645	Production of ENA, ETHNOL &IMFL	Saturday - 24.10.2020		
III	68646	Chemical Engineering	Wednesday- 21.10.2020		
<b>Paper No.IV</b>	<b>Paper No. IV :- Choose Any One of the Following Papers</b>				
	68647	General Engineering	Thursday- 22.10.2020		
	68648	Pollution Prevention & Control			
68649	Business management & marketing				

**M.Sc. Sugar Technology ( C.B.C.S. )**

**Exam Center & College Code :- (Urun Islampur-444)**

<b>Branch Code - Sugar Technology ( C.B.C.S. )</b>					
<b>(From Oct-2018)</b>					
<b>Part II - Sem IV</b>					
<b>PAPER NO.</b>	<b>PAPER CODE</b>	<b>PAPER NAME</b>	<b>DAY &amp; DATE</b>	<b>PAPER TIME</b>	
I	68628	Sugar Processing-Finishing	Friday - 23.10.2020	From 04.00.PM To 05.00 PM	
II	68629	Allid Sugar Manufacturing	Saturday - 24.10.2020		
III	68630	Chemical Engineering-Unit Operation	Wednesday- 21.10.2020		
<b>Paper No.IV</b>	<b>Paper No.IV :- Choose Any One of the Following Papers</b>				
	68631	Energy Conversion and Cogeneration	Thursday- 22.10.2020		
	68632	Pollution Prevention and Control			
68633	Water Management and Zero Discharge				

**M. Sc. Industrial Microbiology ( C.B.C.S. )**

**Exam Center & College Code :- (Karad-156)**

<b>Branch Code - Industrial Microbiology ( C.B.C.S. )</b>		<b>(From April-2019)</b>		
		Part II - Sem IV		
<b>PAPER NO.</b>	<b>PAPER CODE</b>	<b>PAPER NAME</b>	<b>DAY &amp; DATE</b>	<b>PAPER TIME</b>
I	71626	Fermentation Technology-II	Saturday- 23.10.2020	From 04.00.PM To 05.00 PM
II	71627	Food and Dairy Micrology	Friday - 24.10.2020	
III	71628	Quality Assurance and Industrial Laws	Wednesday-21.10.2020	
IV	71629	Industrial Waste Management	Thursday- 22.10.2020	

**M.A./M.Sc. Geography [C.B.C.S.]**

**Exam Center & College Code :- (Kolhapur-540, Sangli-92, Satara-259,162 & 173, Karad-153 & 156)**

<b>Branch Code - GEOGRAPHY ( C.B.C.S.) Old</b>		<b>From April-2015</b>		
		Part II :- Sem.-IV		
<b>PAPER NO.</b>	<b>PAPER CODE</b>	<b>PAPER NAME</b>	<b>DAY &amp; DATE</b>	<b>PAPER TIME</b>
XIII	65005	Development of Geographical Thought	Wednesday-28.10.2020	01.30.PM  To 02.30PM
XIV	65006	Geohydrology & Oceanography	Wednesday-21/10/2020	
XV	<b>Paper No.:- XI – Choose Any One of the Following</b>			
	65009	Agricultural Geography	Thursday-22/10/2020	
	65010	Settlement Geography		
XIV	<b>Paper No. XII :- Choose Any One Of The Following Papers</b>			
	65011	Biogeography	Friday-23/10/2020	
	65012	Medical Geography		

**M.A./M.Sc. Geography [C.B.C.S.]**

**Exam Center & College Code :- (Kolhapur-540, Sangli-92, Satara-259,162 & 173, Karad-153 & 156)**

**Branch Code - GEOGRAPHY (C.B.C.S.) New**

**From April-2020**

		Part II :- Sem.-IV			
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	PAPER TIME	
	79489	Development of Modern Geographical Thought	Wednesday-28.10.2020	01.30.PM To 02.30PM	
	79490	Regional Planning and Development	Wednesday-21/10/2020		
	79497	Dissertation/Project (Based on field work)	Thursday-22/10/2020		
	79498	Study Tour Report Writing	Friday-23/10/2020		
<b>Choose Any One Of The Following Papers</b>					
	79491	Fundamentals of Geographical Information System and Introduction	Saturday - 24.10.2020		
	79492	Fundamental of Soil Geography			
<b>Choose Any One Of The Following Papers</b>					
	79493	Tourism Geography	Monday - 26.10.2020		
	79494	Agricultural Geography			
<b>Choose Any One Of The Following Papers</b>					
	79495	Introduction to GIS Software and GPS	Tuesday- 27.10.2020		
	79496	Soil and Water Analysis			

**M.Sc. Mathematics ( C.B.C.S. ) old**

**Exam Center & College Code :-**

**(Kolhapur-549,573,1 & 50 Sangli-80, Karad-156, Urun Islampur-90, Satara-149.)**

		Branch Code - MATHEMATICS (C.B.C.S.)			(From April-2015)
		Part II :- SEM-IV			
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	PAPER TIME	
XVI	69567	Field Theory	Wednesday-28.10.2020	From 01.30.PM To 02.30 PM	
	63326	Field Theory			
XVII	63319	Partial Differential Equations	Thursday – 29.10.2020		
<b>Paper No. – XVIII, XIX &amp; XX – Choose any Three of the following</b>					
	63322	Commutative Algebra – II	Monday- 02.11.2020	From 01.30.PM To 02.30 PM	
	63335	Fractional Differential Equations	Tuesday-03/11/2020		
	63320	Combinatorics	Wednesday-21/10/2020		
	63324	Lattice Theory –II			
	63334	Algebraic Number Theory	Thursday-22/10/2020		
	63327	Wavelet Analysis	Friday-23/10/2020		
	63328	Fuzzy Relation And Logic			
	63325	Riemannian Geometry -II	Saturday 24.10.2020		
	63331	Dynamical Systems- II	Saturday 24.10.2020		
	63329	Computational Fluid Dynamics	Monday- 26.10.2020		
	63323	Operations Research –II	Tuesday- 27.10.2020		
	63330	General Relativity II	Saturday 31.10.2020		

## M.Sc. Mathematics ( C.B.C.S. ) New

**Exam Center & College Code :- (Kolhapur-549,573,1 & 50 Sangli-80, Karad-156, Urun Islampur-90, Satara-149,)**

<b>Branch Code - MATHEMATICS ( C.B.C.S.)</b>			<b>(From April-2020)</b>		
Part II :- SEM-IV					
PAPER NO.	PAPER CODE	PAPER NAME	DAY & DATE	PAPER TIME	
XVI	79322	Advance Discrete Mathematics	Monday - 02.11.2020	From 01.30 PM To 02.30 PM	
XVII	79321	Integral Equation	Wednesday-28.10.2020		
<b>Paper No. – XVIII, XIX &amp; XX – Choose any Three of the following</b>					
	79476	Dynamics Equations on Time Scales	Tuesday-03/11/2020		
	79333	Analysis on Manifolds			
	79327	Fractional Differential Equations			
	79329	Lattice Theory-II	Wednesday-21/10/2020		
	79337	Space Dynamics-II			
	79330	Wavelet Analysis			
	79475	Automata Theory	Thursday-22/10/2020		
	79323	Algebraic Number Theory			
	79325	Fuzzy Mathematics-II	Friday-23/10/2020		
	79331	Dynamical Systems- II	Saturday 24.10.2020		
	79336	Commutative Algebra-II			
	79326	Computational Fluid Dynamics	Monday 26.10.2020		
	79334	Measure and Integration	Tuesday- 27.10.2020		
	79324	Operations Research –II			
	79332	Graph Theory-II	Thursday – 29.10.2020		
	79335	Theory of Distributions	Saturday - 31.10.2020		
	79328	General Relativity-II			

**Vidyanagar,  
Kolhapur – 416 004  
Date :- 15 October 2020**

**Shri. G R Palse  
I/c DIRECTOR  
BOARD OF EXAMINATIONS AND EVALUATION**