

# SHIVAJI UNIVERSITY, KOLHAPUR

## Circular No. 294 Exam

### THE DRAFT PROGRAMME

Draft Programme of the **M.Phil. / Pre.Ph.D.** Examination to held in **June. 2019.**

1. Students should see their Seat No. and Name in the Name list and mistakes if any should be communicated to this office immediately. All candidates are requested to confirm their Examination Seat No. as well as place of examination on the Notice Board of the University /College mentioned below at least Two days before the date of Examination. The candidate should write correct Seat No. on each answer book. If candidate writes, wrong, Seat No. on answer book the performance of such subject will not be considered.

2. Candidates are requested to be present at their respective places of Examination **FIFTEEN MINUTES** before the time of starting of the first paper and **TEN MINUTES** before the time of starting of each subsequent paper. Candidates are forbidden to take any book or paper into the Examination Hall.

3. **The Examination Centre: 1) Humanities Building, Shivaji University, Kolhapur,**

**2) Concern University Department**

**3) Department of Technology Shivaji University, Kolhapur.**

4. The written examination will be conducted in the following order

### **M.Phil. / Pre.Ph.D. New Syllabus**

<b>M. Phil. / Pre. Ph. D. New Syllabus Paper</b>					
<b>Faculty Of Arts</b>					
<b>Time – 11.00a.m to 2.00p.m</b>					
<b>SR NO</b>	<b>SUBJECT</b>	<b>PAPER NO</b>	<b>PAPER NAME</b>	<b>DAY&amp;DATE</b>	<b>CODE NO</b>
	<b>1) Paper I-Research Methodology(Theory) (Marathi)</b>			Tuesday 25/06/2019	65146
		2)	साहित्य आणि इतर सामाजिक भाास्त्रे	Thursday 27/06/2019	65147
		3A)	मध्ययुगीन साहित्य : प्रेरणा आणि स्वरूप	Saturday 29/06/2019	65148
		3 B)	एकोणिसावे भातक:समाज,संस्कृती आणि साहित्य :प्रेरणा आणि स्तित्यंतरे		65149
		3 C)	आधुनिक साहित्य : प्रेरणा आणि स्वरूप		65150
<b>1</b>	<b>Marathi</b>		<b>1) Paper I-Research Methodology (Theory) (Marathi)</b>	Tuesday 25/06/2019	54420
		2)	साहित्याभ्यासातील आधुनिक प्रवाह	Thursday 27/06/2019	54864
		3 A)	प्राचीन मराठी साहित्य : प्रेरणा व स्वरूप	Saturday 29/06/2019	54421
		3 B)	स्वातंत्र्यपूर्व मराठी साहित्य : प्रेरणा व स्वरूप		54422
		3 C)	स्वातंत्र्यानंतरचे मराठी साहित्य : प्रेरणा व स्वरूप		54423

2	<b>1) Language Common Paper I-Research Methodology (Theory) (English, Sanskrit and Urdu)</b>			Tuesday 25/06/2019	54420
	Hindi	2	हिंदी साहित्य अध्ययन के अधुनातन आयाम	Thursday 27/06/2019	54424
		3 A)	प्राचीन एवं मध्ययुगीन काव्य	Saturday 29/06/2019	54425
		3 B)	आधुनिक हिंदी कविता		54426
		3 C)	राजभाषा हिंदी		54427
		3 D)	उपन्यास विधा		54428
		3 E)	कहानी विधा		54429
		3 F)	नाटक विधा		54430
3 G)		कथेतर साहित्य	54431		
3	English	2	Recent Trends in English Studies		Thursday 27/06/2019
		3 A)	Modern British Literature (1900-2000)	Saturday 29/06/2019	54433
		3 B)	Modern American Literature (1900-2000)		54434
		3 C)	Applied Linguistics and Second Language Teaching		54435
		3 D)	New Literatures in English		54436
4	Sanskrit	2	संस्कृत अध्ययनातील आधुनिक प्रवाह	Thursday 27/06/2019	
		3 A)	संस्कृत साहित्याचा इतिहास (वैदिक काल)	Saturday 29/06/2019	54438
		3 B)	संस्कृत साहित्याचा इतिहास (अभिजात वाङ्मय)		54439
		3 C)	अर्वाचीन संस्कृत साहित्य (इ. स.17 व्या शतकापासून पुढे)		54440
		3 D)	संस्कृतातील ज्ञानविज्ञान व तंत्रशास्त्र		54441
5	Urdu	2	Recent Trends in Urdu - Urdu ke Asari Rujhanat	Thursday 27/06/2019	54442
		3 A)	URDU FICTION.	Saturday 29/06/2019	54443
		3 B)	URDU GHAIK AFSANAVI ADAB.		54444
		3 C)	JADEED URDU SHAIERY.		54445
6	Music	1	संशोधन पध्दती (Research Methdology)	Tuesday 25/06/2019	54446
		2	संगीत व इतर विद्याशाखा परस्परसंबंध (Interdisciplinary Subjects)	Thursday 27/06/2019	54447
		3	बुजुर्ग कलाकारांचा अभ्यास – गायक किंवा वादक	Saturday 29/06/2019	54448
7	Dramatics	1	संशोधन पध्दती (Research Methdology)	Tuesday 25/06/2019	54449
		2	नाटयशास्त्र वा इतर विद्याशाखा परस्पर संबंध	Thursday 27/06/2019	54450
		3 A)	दिग्दर्शन	Saturday 29/06/2019	61738
		3 B)	अभिनय		61739

**M. Phil. / Pre. Ph. D. New Syllabus Paper**

**Faculty of Social Science**

Time – 11.00a.m to 2.00p.m

SR. NO.	SUBJECT	PAPER NO.	PAPER NAME	DATE	CODE NO.
		1	<b>Research Methodology Quantitative Techniques, and Computer Application. Compulsory Paper - COMMON SYLLABUS FOR SOCIAL SCIENCES (ECONOMICS, SOCIOLOGY, POLITICAL SCIENCE, JOURNALISM, MASS COMMUNICATION), COMMERCE AND MANAGEMENT, EDUCATION, LAW, AND WOMEN STUDIES</b>	Tuesday 25/06/2019	54454
9	Economics	2	ADVANCED THEORIES IN ECONOMICS	Thursday 27/06/2019	54455
		3 A)	ECONOMICS OF AGRICULTURE AND CO-OPERATION	Saturday 29/06/2019	54456
		3 B)	DEMOGRAPHY AND GENDER STUDIES		54457
		3 C)	ENVIRONMENTAL AND RESOURCE ECONOMICS		54458
		3 D)	ECONOMICS OF INDUSTRY & LABOUR		54459
		3 E)	INTERNATIONAL TRADE AND FINANCE		54460
		3 F)	ECONOMICS OF MONEY, BANKING AND FINANCIAL INSTITUTIONS		54461
		3 G)	PUBLIC ECONOMICS		54462
3 H)	REGIONAL ECONOMICS	54463			
10	History	2	Recent Trends in History	Thursday 27/06/2019	54464
		3 A)	Ancient Indian History Up to 1000 A.D.	Saturday 29/06/2019	54465
		3 B)	Medieval India 1000 A.D.-1757A.D.		54466
		3 C)	Maratha History		54467
		3 D)	Modern India		54468
11	Political Science	2	Recent Trends in Political Science	Thursday 27/06/2019	54469
		3 A)	Studies in Indian Politics	Saturday 29/06/2019	54470
		3 B)	Advances in Public Administration	54471	
		3 C)	Modern Political Analysis	54472	
12	Sociology	2	RECENT TRENDS IN SOCIOLOGICAL THEORY	Thursday 27/06/2019	54473
		3 A)	INDUSTRY AND SOCIETY	Saturday 29/06/2019	54474
		3 B)	INDIAN SOCIETY : POVERTY AND SOCIAL INEQUALITIES		54475
		3 C)	ENVIRONMENTAL SOCIOLOGY		54476
		3 D)	SOCIOLOGY OF MASS COMMUNICATION AND INFORMATION SOCIETY		54477
		3 E)	SOCIAL DEMOGRAPHY		54478
		3 F)	SOCIOLOGY OF MIGRATION		54479
		3 G)	SOCIAL MOVEMENT IN INDIA		54480
3 H)	GENDER AND SOCIETY	54481			

13	Psychology	2	Recent Trends in Psychology	Thursday 27/06/2019	54482
		3 A	COUNSELLING PSYCHOLOGY	Saturday 29/06/2019	54483
		3 B	CLINICAL PSYCHOLOGY		54484
		3 C	INDUSTRIAL PSYCHOLOGY		54485
14	Social Work	2	PRINCIPLES AND PRACTICE OF SOCIAL WORK	Thursday 27/06/2019	54486
		3 A)	HUMAN RESOURCE MANAGEMENT AND LABOUR WELFARE	Saturday 29/06/2019	54487
		3 B)	COMMUNITY DEVELOPMENT		54488
		3 C)	MEDICAL AND PSYCHIATRIC SOCIAL WORK		54489
		3 D)	FAMILY AND CHILD WELFARE		54490
		3 E)	CRIMINOLOGY AND CORRECTIONAL ADMINISTRATION		54491
15	Philosophy	2	Recent Trends in Philosophy	Thursday 27/06/2019	54492
		3 A)	Modern Topics in Philosophy	Saturday 29/06/2019	54493
		3 B)	Advanced Development in Philosophy		54494
		3 C)	Anasakti Yoga : By M. K. Gandhi		54495
16	Library & Information Science	2	RECENT TRENDS IN LIBRARY AND INFORMATION SCIENCE	Thursday 27/06/2019	54496
		3 A)	MANAGEMENT OF ACADAMEC LIBRARY SYSTEM	Saturday 29/06/2019	54497
		3 B)	MANAGEMENT OF SPECIAL LIBRARY SYSTEM.		54498
		3 C)	MANAGEMENT OF PUBLIC LIBRARY SYSTEM		54499
17	Mass Communication	2	Mass Communication Theory	Thursday 27/06/2019	54500
		3	Advances in Media Studies	Saturday 29/06/2019	54501
18	Commerce & Management	2 A)	RECENT TRENDS IN COMMERCE & MANAGEMENT	Thursday 27/06/2019	54502
		2 B)	Recent Trends in Information Technology		54503
		3 A)	Marketing Management	Saturday 29/06/2019	54504
		3 B)	Financial Management		54505
		3 C)	Human Resource Management		54506
		3 D)	Cooperative Management		54507
		3 E)	Industrial Structure of India		54508
		3 F)	Indian Economic Environment		54509
		3 G)	Applied Statistics and Quantitative Techniques		54510
		3 H)	Taxation of India		54511
		3 I)	Management Accounting		54512
		3 J)	Advanced Cost Accountancy		54513
		3 K)	Business Administration		54514
		3 L)	Organization of Trade and Logistic Management		54515
		3 M)	International Business		54516
		3 N)	System Management		54517
3 O)	Strategic Management	54518			
3 P)	Computer Application	61749			

19	Law	2	Recent Trends in Law	Thursday 27/06/2019	54519
		3	The General Laws	Saturday 29/06/2019	71106

<b>M. Phil. / Pre. Ph. D. New Syllabus Paper</b>					
<b>Faculty of Social Science</b>					
<b>Time – 11.00a.m to 2.00p.m</b>					
20	Education	2	RECENT TRENDS AND ADVANCES IN EDUCATION	Thursday 27/06/2019	54520
		3 A)	Special Field in Education: Educational Management	Saturday 29/06/2019	54521
		3 B)	Special Field in Education: Educational Psychology		54522
		3 C)	Special Field in Education : Environmental Education		54523
		3 D)	Special Field in Education : Information Technology and Educational Technology		54524
		3 E)	Special Fields in Education : Teacher Education		54525
21	Physical Education	1	Research In Physical Education & Sports	Tuesday 25/06/2019	54526
		2	Recent Trends in Physical Education and Sports	Thursday 27/06/2019	54527
		3 A)	Sports Medicine	Saturday 29/06/2019	54528
		3 B)	Sports Physiology		54529
		3 C)	Psychology of Sports		54530
		3 D)	Yoga and Sports Science		54531
		3 E)	Scientific Approach to Techniques in Advance coaching and Training		54532
3 F)	Tests, Measurement and Evaluation in Physical Education and sports sciences	54533			
22	Journalism & Communication Science	1	Research Methodology	Tuesday 25/06/2019	58380
		2	Advances in Communication and Mass Communication Theories	Thursday 27/06/2019	58381
		3 A)	Development Communication	Saturday 29/06/2019	58382
		3 B)	Print Media		58383
		3 C)	Electronic Media (Radio & Television)		58384
		3 D)	Film Studies		58385
		3 E)	Public relations and advertising		58386
3 F)	ICT (Information & Communication Technology) and New Media	58387			

**M. Phil. / Pre. Ph. D. New Syllabus Paper**

**Faculty of Science**

Time – 11.00a.m to 2.00p.m

SR. NO.	SUBJECT	PAPER NO.	PAPER NAME	DATE	CODE NO.
23	<b>AGPM</b>	1	Research Methodology in Agrochemicals and Pest Management	Tuesday 25/06/2019	54534
		2	Recent Trends in Agrochemicals and Pest Management	Thursday 27/06/2019	54535
		3 A)	Recent advances in Agro chemistry.	Saturday 29/06/2019	54536
		3 B)	Recent Advances in Pest Management		54537
		3 C)	Recent Advances in plant protection.		54538
24	<b>Botany</b>	1	Research Methodology in Botany	Tuesday 25/06/2019	54539
		2	Recent Trends in Botany	Thursday 27/06/2019	54540
		3 A)	Recent Advances in Plant Physiology	Saturday 29/06/2019	54541
		3 B)	Recent Advances in Mycology and Plant Pathology		54542
		3 C)	A Recent Advances in plant Protection		54543
		3 D)	TAXONOMY, BIODIVERSITY AND CONSERVATION		54544
		3 E)	Recent Advance in Plant Ecology		54545
		3 F)	RECENT ADVANCES IN MARINE BOTANY		54546
		3 G)	Recent Trends in Biotechnology		54547
		3 H)	Recent Advances in Bryology and Pteridology		58352
		3 I)	Cytogenetics and Plant Breeding		65198
		3J)	Recent Advances in Phycology		65758
25	<b>Food- Science</b>	1	Research methodology and scientific report writing	Tuesday 25/06/2019	54658
		2	Recent trends in food processing and preservation	Thursday 27/06/2019	54659
		3 A)	Advances in Food Science and Nutrition	Saturday 29/06/2019	54660
		3 B)	Advances in Food Bio-technology		54661
26	<b>Chemistry</b>	1	Research Methodology and Computer Applications in Chemistry	Tuesday 25/06/2019	54548
		2	Recent Trends in Chemistry	Thursday 27/06/2019	54549
		3 A)	Selected Topics in Organic Chemistry	Saturday 29/06/2019	54550
		3 B)	Selected Topics in Inorganic Chemistry		54551
		3 C)	Selected Topics in Physical Chemistry		54552
27	<b>Geology</b>	1	Research methodology	Tuesday 25/06/2019	54553
		2	Recent trends in Geology	Thursday 27/06/2019	54554
		3 A)	Prospecting and Utilization of Groundwater Resources	Saturday 29/06/2019	54555
		3 B)	Environmental Pollution and Management		54556
		3 C)	Sedimentary Environments		54557
		3 D)	Deccan basalts		54558

28	<b>Mathematics</b>	1	Research Methodology	Tuesday 25/06/2019	71655
		2 A)	Recent Trends in Mathematics	Thursday 27/06/2019	71656
		3 A)	Theory of Fractional Dynamic Systems	Saturday 29/06/2019	71657
		3 B)	Differential and Integral Inequalities		71658
		3 C)	Delay Differential Equations		71659
		3 D)	Iterative Methods		71660
		3 E)	Atomistic and Multiplicative Lattices		71661
		3 F)	Generalized Integral Transformations		71662
		3 G)	Trellis Theory		71663
		3 H)	Commutative Algebra		71664
		3 I)	Theory of Near Rings		71665
		3 J)	Topics in General Relativity		71666
		3 K)	Theory of Choice		71667
		3 L)	Theory of Fuzzy Computation		71668
		3 M)	Lattices Theory		71669
		3 N)	Topics in Geometric Function Theory		71670
		3 O)	Fluid Dynamics		71671
		3P)	Fuzzy Measures and Integrals		71672
		3Q)	Numerical Analysis III		71673
		3R)	Group Analysis of Differential Equations		71674
3S)	Mathematical Modeling	71675			
29	<b>Home Science</b>	1	Research Methodology	Tuesday 25/06/2019	54833
		2	Recent Trends in Home Science	Thursday 27/06/2019	54834
		3 A)	Thrust areas for Research in Food and Nutrition	Saturday 29/06/2019	54835
		3 B)	Trust Areas for Research in Family Resource Management		54836
		3 C)	Trust Areas for Research in Human Development		54837
		3 D)	Trust Areas for Research in Textile and Clothing		54838
		3 E)	Trust Areas for Research in Home Science Extension Education		54839
30	<b>Statistics</b>	1	Research Methodology	Tuesday 25/06/2019	54559
		2	Recent Trends in Statistics	Thursday 27/06/2019	54560
		3 A)	Topics in Statistics - Statistical Analysis of Circular Data.	Saturday 29/06/2019	54561
		3 B)	Topics in Statistics - Topic in Asymptotic Inference.		54562
		3 C)	Topics in Statistics - Topic in Distribution Theory.		54563
		3 D)	Topics in Statistics - Applied Regression Analysis.		54564
		3 E)	Topics in Statistics - Topic in Discrete Multivariate Analysis.		54565
		3 F)	Topics in Statistics - Advanced Topics in Sampling Theory.		54566
		3 G)	Topics in Statistics - Advanced Design of Experiments		54567
		3 H)	Topics in Statistics - Topic in Reliability Analysis		54568
		3 I)	Topics in Statistics - Statistical Quality Control.		54569
		3 J)	Topics in Statistics - Advanced Inference.		54570
		3 K)	Topics in Statistics - Reliability Theory and Survival Analysis.		54571

31	<b>Zoology</b>	1	Research Methodology in Zoology	Tuesday 25/06/2019	54572
		2	Research Advances in Zoology	Thursday 27/06/2019	54573
		3 A)	ADVANCES IN PEST MANAGEMENT	Saturday 29/06/2019	54574
		3 B)	BIOLOGICAL INSECT PEST CONTROL		54575
		3 C)	INSECT PARASITOIDS		54576
		3 D)	Biopesticides		54577
		3 E)	BIODIVERSITY		54578
		3 F)	EXERCISE AND OCCUPATIONAL PHYSIOLOGY		54579
		3 G)	PHYSIOLOGY OF REPRODUCTION		54580
		3 H)	Toxicology		54581
		3 I)	Biology of Aging		54582
		3 J)	Secretory Cells		54583
		3 K)	Cell Biology		54584
		3 L)	Advances in Fisheries and Aquaculture		54585
		3 M)	Fish Physiology		54586
		3 N)	Environmental Biology		54587
3 O)	Trends in sericulture	54588			
32	<b>Environmental Science</b>	1	RESEARCH METHODOLOGY	Tuesday 25/06/2019	54589
		2	RECENT ADVANCE IN ENVIRONMENTAL SCIENCE	Thursday 27/06/2019	54590
		3 A)	BIODIVERSITY AND CONSERVATION	Saturday 29/06/2019	54591
		3 B)	WILD LIFE STUDIES		54592
		3 C)	ECO - PHYSIOLOGY AND BIOMONITORING		54593
		3 D)	ECOTOXICOLOGY		54594
		3 E)	ENVIRONMENT AND HEALTH		54595
		3 F)	ENVIRONMENTAL MANAGEMENT		54596
		3 G)	INDUSTRIAL POLLUTION		54597
3 H)	ENVIRONMENTAL MUTAGENESIS AND CARCINOGENESIS	54598			
33	<b>Electronics</b>	1	Research Methodology and Computer Application	Tuesday 25/06/2019	63191
		2	Recent Trends in Electronics	Thursday 27/06/2019	63192
		3 A)	Digital Image Processing	Saturday 29/06/2019	63193
		3 B)	Antenna Design and Measurements		63194
		3 C)	Wireless Sensor Networks		63195
		3 D)	Biomedical Engineering		63196
		3 E)	Modern Communication System		63197
		3F)	Advances in Power Electronics		63198
		3G)	Advances In Embedded Systems and VLSI Design		63199
3H)	Problem Solving With Soft Computing	63200			

34	<b>Geography</b>	1	RESEARCH METHODOLOGY, QUANTITATIVE TECHNIQUES, COMPUTER APPLICATION	Tuesday 25/06/2019	54605
		2	RECENT TRENDS IN GEOGRAPHY	Thursday 27/06/2019	54606
		3 A)	Recent Trends in Agricultural Geography	Saturday 29/06/2019	54607
		3 B)	Recent Trends in Economic Geography		54608
		3 C)	Recent Trends in Settlement Geography		54609
		3 D)	Recent Trends in Population Geography		54610
		3 E)	Recent Trends in Tourism Geography		54611
		3 F)	Recent Trends in Medical Geography		54612
		3 G)	Recent Trends in physical Geography		54613
35	<b>Microbiology</b>	1	Research Methodology	Tuesday 25/06/2019	54614
		2	Recent Trends in Biological Sciences	Thursday 27/06/2019	54615
		3 A)	Bioinformatics	Saturday 29/06/2019	54616
		3 B)	Bioremediation and Waste Water Treatment Technologies.		54617
		3 C)	Advanced Techniques in Cell Culture		54618
		3 D)	Agricultural Microbiology and Microbial Ecology		54619
		3 E)	Applied and Environmental Microbiology		54620
		3 F)	Immunology and Medical Microbiology		54621
		3 G)	Fermentation Technology		54622
3 H)	Clinical Biochemistry	54623			
36	<b>Bio-chemistry</b>	1	Research Methodology	Tuesday 25/06/2019	54624
		2	Recent Trends in Biological Sciences	Thursday 27/06/2019	54625
		3 A)	Bioinformatics	Saturday 29/06/2019	54626
		3 B)	Bioremediation and Waste Water Treatment Technologies.		54627
		3 C)	Advanced Techniques in Cell Culture		54628
		3 D)	Agricultural Microbiology and Microbial Ecology		54629
		3 E)	Applied and Environmental Microbiology		54630
		3 F)	Immunology and Medical Microbiology		54631
		3 G)	Fermentation Technology		54632
3 H)	Clinical Biochemistry	54633			
37	<b>Biotechnology &amp; Environmental Biotechnology</b>	1	Research Methodology	Tuesday 25/06/2019	54648
		2	Recent Trends in Biological Sciences	Thursday 27/06/2019	54649
		3 A)	Bioinformatics	Saturday 29/06/2019	54650
		3 B)	Bioremediation and Waste Water Treatment Technologies.		54651
		3 C)	Advanced Techniques in Cell Culture		54652
		3 D)	Agricultural Microbiology and Microbial Ecology		54653
		3 E)	Applied and Environmental Microbiology		54654
		3 F)	Immunology and Medical Microbiology		54655
		3 G)	Fermentation Technology		54656
3 H)	Clinical Biochemistry	54657			

38	<b>Computer Science</b>	1	Research Methodology	Tuesday 25/06/2019	54634
		2	Recent Trends in Computer Science	Thursday 27/06/2019	54635
		3 A)	Research Trends In Computer Science	Saturday 29/06/2019	54636
39	<b>Physics</b>	1	Research Methodology and Computer Applications in Physical And Chemical Sciences	Tuesday 25/06/2019	54637
		2	Frontiers in Physics	Thursday 27/06/2019	54638
		3 A)	SOL GEL PROCESSING IN SOLID STATE MATERIALS	Saturday 29/06/2019	54639
		3 B)	Deposition of films and their applications		54640
		3 C)	Fuel Cell Technology		54641
		3 D)	Holography and its Applications		54642
		3 E)	THICK AND THIN FILM MICROSTRIP COMPONENT TECHNOLOGY		54643
		3 F)	Photo catalysis		54644
		3 G)	Solar cell: Fundamentals and Applied aspects		54645
		3 H)	Vacuum techniques and Thin films.		54646
3 J)	Space Science and Astronomy	58733			

**M. Phil. / Pre. Ph. D. New Syllabus Paper**

**Faculty of Engineering & Pharmacy**

Time – 11.00a.m to 2.00p.m

SR. NO.	SUBJECT	PAPER NO.	PAPER NAME	DATE	CODE NO.
40	<b>Pharmacy</b>	1	RESEARCH METHODOLOGY (Common for Engineering / Technology / Pharmacy)	Tuesday 25/06/2019	54662
		2 A)	Advances in Pharmaceutical Sciences (Pharmacological Screening and Assays)	Thursday 27/06/2019	54663
		2 B)	Advances in Pharmaceutical Sciences (Separation Techniques)		54664
		2 C)	Advances in Pharmaceutical Sciences (Molecular modelling)		54665
		2 D)	Advances in Pharmaceutical Sciences (Isolation And Characterization Of Phytoconstituents)		54666
		2 E)	Advances in Pharmaceutical Sciences (Optimization Technology)		54667
		2 F)	Advances in Pharmaceutical Sciences (Biopharmaceuticals)		54668
		3 A)	Open elective (Polymorphs And Salts In The Pharmaceutical Industry)	Saturday 29/06/2019	54669
		3 B)	Open elective (Chemotherapy of Parasitic and Microbial Infections)		54670
		3 C)	Open elective (Synthetic strategies in synthesis of complex organic molecules)		54671
		3 D)	Open elective (Clinical Research)		54672
		3 E)	Open elective (Spectral Analysis)		54673
		3 F)	Open elective (Drug Regulatory affairs)		54674
		3 G)	Open elective (Quality Assurance & Quality Control)		54675
		3 H)	Open elective (Process Analytical Technology)		54676
		3 I)	Open elective (Industrial Pharmacognosy)		54677

ENGINEERING PAPERS					
41	<b>Biotechnology Engineering</b>	2	ADVANCES IN BIOTECHNOLOGY ENGINEERING	Thursday 27/06/2019	54678
		3 A)	Advanced Transport Phenomena	Saturday 29/06/2019	54679
		3 B)	Bioprocess modeling and simulations		54680
		3 C)	FOOD BIOTECHNOLOGY		54681
42	<b>Civil Engineering</b>	2 A)	Advances in Structural Engineering	Thursday 27/06/2019	54682
		2 B)	Advances in Environmental Engineering		54683
		2 C)	Advances in Geotechnical Engineering		54684
		2 D)	Advances in Water Recourse Engineering		54685
		2 E)	Advances in Construction & Management		54686
		2 F)	Advances in Transportation Engineering		54687
		2 G)	Advances in Town & country planning		54688
		3 A)	New Construction Materials	Saturday 29/06/2019	54689
		3 B)	Project Risk Analysis and Mitigation Techniques		54690
		3 C)	Soil Structure Interaction		54691
		3 D)	Geotechnical Earthquake Engineering		54692
		3 E)	Systems Techniques in water Resource Engineering		54693
		3 F)	Design of Composite Construction		54694
3 G)	Non-linear Analysis of Structures	54695			
3 H)	Project economics & financial management	54696			
3 I)	Environmental Auditing & EMS	54697			
43	<b>Computer Sci. Eng.</b>	2	Advances in Computer Sci. & Engineering	Thursday 27/06/2019	54698
		3 A)	CLOUD COMPUTING	Saturday 29/06/2019	54699
		3 B)	USER INTERFACE DESIGN		54700
		3 C)	REAL - TIME AND EMBEDDED SYSTEMS		54701
		3 D)	CONVERGENCE TECHNOLOGIES		54702
44	<b>E &amp; T. C Engg.</b>	2	ADVANCES IN E&TC ENGINEERING	Thursday 27/06/2019	54703
		3 A)	REAL TIME EMBEDDED SYSTEMS	Saturday 29/06/2019	54704
		3 B)	CRYPTOGRAPHY & NETWORK SECURITY		54705
		3 C)	SPEECH & AUDIO PROCESSING		54706
		3 D)	MOBILE COMPUTING		54707
		3 E)	STOCHASTIC MODELS & QUEUING THEORY		54708
		3 F)	COMMUNICATION SYSTEM DESIGN		54709
		3 G)	OPTICAL NETWORKS		54710
		3 H)	DIGITAL DATA COMPRESSION		54711
		3 I)	OPTIMIZATION TECHNIQUES		54712
		3 J)	MULTIRATE SYSTEMS AND FILTER BANKS		54713

**M. Phil. / Pre. Ph. D. New Syllabus Paper****Faculty of Engineering**

Time – 11.00a.m to 2.00p.m

SR. NO.	SUBJECT	PAPER NO.	PAPER NAME	DATE	CODE NO.
45	<b>Electrical Engineering</b>	2	Advances in Electrical Engineering	Thursday 27/06/2019	54714
		3 A)	Restructured Power Systems	Saturday 29/06/2019	54715
		3 B)	Flexible AC Transmission Systems		54716
		3 C)	Computational Electromagnetic		54717
		3 D)	Modeling and Identification of Dynamical Systems		54718
		3 E)	Optimization		54719
		3 F)	Computer aided Power System Analysis		54720
		3 G)	Artificial Neural Networks		54721
		3 H)	Power System Protection		54722
		3 I)	Numerical Methods for Linear Control Systems		54723
46	<b>Electronics Engineering</b>	2 A)	Advances in Electronics Engineering-I	Thursday 27/06/2019	54724
		2 B)	Advances in Electronics Engineering-II	54725	
		3 A)	Mathematical Methods and Algorithms	Saturday 29/06/2019	54726
		3 B)	MICROELECTRONICS DESIGN		54727
		3 C)	ADVANCED DIGITAL SYSTEM DESIGN		54728
		3 D)	WIRELESS AND MOBILE TECHNOLOGIES		54729
		3 E)	MACHINE INTELLIGENCE		54730
		3 F)	ADVANCED COMPUTING ARCHITECTURES		54731
		3 G)	MEMORY TECHNOLOGIES		54732
		3 H)	BIOMEDICAL SIGNALS AND SYSTEMS		54733
		3 I)	EMBEDDED VIDEO PROCESSING		54734
		3 J)	RECONFIGURABLE COMPUTING		54735
		3 K)	EMBEDDED AUTOMOTIVE SYSTEMS		54736
		3 L)	DIGITAL SIGNAL COMPRESSION		54737
		3 M)	SOFTWARE DEFINED RADIO		54738
47	<b>Instrumentation Engineering</b>	2	Instrumentation & Measurement Technology	Thursday 27/06/2019	54740
		3 A)	Biomedical Instrumentation	Saturday 29/06/2019	54741
		3 B)	Advanced Process Control & Instrumentation	54742	

48	<b>Mechanical / Production Engineering</b>	2 A)	Advances in Mechanical Engineering (CAD/ CAM/CAE- I)	Thursday 27/06/2019	54743
		2 B)	Advances in Mechanical Engineering (CAD/CAM/CAE-II)		54744
		2 C)	Advances in Mechanical Engineering (Design-I)		54745
		2 D)	Advances in Mechanical Engineering (Design-II)		54746
		2 E)	Advances in Mechanical Engineering (Heat Power-I)		54747
		2 F)	Advances in Mechanical Engineering (Heat Power-II)		54748
		2 G)	Advances in Mechanical Engineering (Production-I)		54749
		2 H)	Advances in Mechanical Engineering (Production-II)		54750
		2 I)	Advances In Mechanical Engineering (Production Engineering)		54751
		2 J)	Advances In Mechanical Engineering (Cad/Cam/Cae)		54752
		2 K)	Advances In Mechanical Engineering (Industrial Engineering)		54753
		3 A)	Numerical Computation of Fluid and Heat Flow	Saturday 29/06/2019	54754
		3 B)	Energy Analysis of Thermal Systems		54755
		3 C)	Design of Heat Transfer Equipments		54756
		3 D)	Mathematical Modeling and Design Optimization		54757
		3 E)	Advanced theory of vibration		54758
		3 F)	Analysis and Synthesis of Mechanisms		54759
		3 G)	Advanced Finite Element Analysis		54760
		3 H)	Noise and Vibration Harshness(NVH)		54761
		3 I)	Optimization Techniques		54762
		3 J)	Mechatronics system design		54763
		3 K)	MEMS & Nanotechnology		54764
		3 L)	Supply chain management & Logistics		54765
		3 M)	Automatic Control Engineering		54766
		3 N)	Decision Making in Manufacturing Environment		54767
		3 O)	Metal Forming Technology		54768
		3 P)	Mechatronics		54769
		3 Q)	Advanced casting technology		54770
		3 R)	Manufacturing Systems		54771
		3 S)	Precision Engineering		54772
		3 T)	Computer Aided Manufacturing	54773	
		3 U)	Advanced Materials & Processing	54774	
3 V)	Tribology	54775			
3 W)	Technology Management	54776			
3 X)	Database Management	54777			
3 Y)	Modern manufacturing systems	54778			
3 Z)	Low Cost Automation	54779			

49	<b>TEXTILE ENGINEERING</b>	2	ADVANCES IN TEXTILE ENGINEERING	Thursday 27/06/2019	54780
		3 A)	High Performance Fibres	Saturday 29/06/2019	54781
		3 B)	Technical Textiles		54782
		3 C)	Textile For Protection		54783
		3 D)	Textile for Sports Application		54784
		3 E)	Textile in Automobile Engineering		54785
		3 F)	Intelligent Textiles & Clothing		54786
		3 G)	Physical Methods of Analysis & Eco-Testing		54787
		3 H)	Nanotechnology in Textiles		54788
		3 I)	Project Preparation, Appraisal & Implementation		54789
		3 J)	Management of Textile Production		54790

50	<b>Architecture Engineering</b>	2	Land and Regulations for Development (Land Development and Buildings)	Thursday 27/06/2019	72994
		3 A)	Architectural Heritage and Conservation	Saturday 29/06/2019	72995
		3 B)	Environmental Architecture & Planning		72996

**M. Phil. / Pre. Ph. D. New Syllabus Paper**

**Faculty of Science**

**M. Phil. / Pre. Ph. D. New Syllabus Paper**

51	<b>Nano science and Technology</b>	1	Research Methodology	Tuesday 25/06/2019	72997
		2	Nano-characterization Methods	Thursday 27/06/2019	72998
		3	Nanostructure Synthesis	Saturday 29/06/2019	72999

- 1 Examinee should confirm the customized Time-Table printed on his/her hall ticket with the final programme of examination sent to College / Department and also available on University website [www.unishivaji.ac.in](http://www.unishivaji.ac.in)
- 2 The students are allowed to use the non programmable calculator for Numerical calculations at their own cost. University will not supply such calculators.
- 3 Cellular Phone (Mobile), Programmable Scientific Calculator & Digital Diary or any other means which can be used for unfair practice is not allowed in the Examination Hall.

**Note:** The Examination Programme is subject to change; if there is any change the University is not responsible for the loss or inconvenience caused to the candidates.

**Sd/-**

**Shri. M. A. Kakade**

**Director**

**Board of Examinations and Evaluation**

**Vidyanagari,**

**Kolhapur-416 004,**

**SU/EXAM/B.Sc/M.Phil/Circular No.294**

**Date- 25 / 04 /2019**