

SHIVAJI UNIVERSITY, KOLHAPUR

Final Programme of M. E. I & II Semester,

Examination to be held in Nov./Dec. 2019

CIRCULER NO - 490 Exam Of Nov./Dec. - 2019

1. The candidates are requested to be present at their respective places of Examination FIFTEEN MINUTES before the time appointed for setting of the First Paper and TEN MINUTES before the time appointed for setting of each subsequent Paper. Candidates are forbidden to take any book or paper into the Examination Hall.
2. The M.E. Examination will be held at:

Sr. No.	Centre	College Name
1	Karad	Government College of Engineering, Karad
2	Satara	K.B.P. College of Engineering, Satara
3	Warananagar.	Tatyasaheb Kore Institute of Technology, Warnanagar.
4	Sakharale	Rajarambapu Institute of Technology, Sakharale
5	Budhagaon.	P.V.P. Institute of Technology, Budhagaon.
6	Ichalkaranji	DKTEs Textile & Engineering Institute, Ichalkaranji.
7	Jaysingpur.	Dr. J. J. Magdum College of Engineering, Jaysingpur.
8	Ambabai Talim Sanshta's Sanjay Bhokare Group Institutes, Miraj	Walchand College of Engineering, Sangli.
9	Ashta	Annasaheb Dange College of Engg. & Tech. Ashta
10	Atigre	Sou. Sushila Danchand Ghodawat, Charitable Trusts Group of Institutions, Atigre
11	Wathar	Ashokrao Mane Group of Institutions Faculty of Engineering & Management Studies, Wathar
12	Panhala	Sanjeevan Engineering and Technology Institute, Panhala
13	LIMB	Gourishankar College of Engineering, Limb
14	Bharati Vidypeeth College of Engg., Morewadi, Kolhapur	1. D.Y. Patil College of Engineering, Kasaba Bawada, Kolhapur 2. KIT COLLEGE OF ENGINEERING, GOKUL SHIRGAON, KOLHAPUR 3. BHARTI VIDYAPEETH'S COLLEGE OF ENGINEERING, MOREWADI, KOLHAPUR

3. The written Examination will be conducted in the following order:-

SEMESTER – I

Day &Date : - Thursday, 28/11/2019 Time: 10.00 a.m. to 1.00 p.m.

BRANCH	Sub-Branch	Papers	
CIVIL	Structure	Theory of Elasticity & Plasticity Time:10.00 a.m. to 2.00 p.m.	34341
	Construction & Management	Project Evaluation and Financing	34319
ELECTRICAL	Power System	Power System Modeling and Stability	34336
	Control System	Linear System Theory	34331
BIOCHEMICAL ENGINEERING & BIO-TECHNOLOGY	-	Advanced Bio reaction Engineering	42982
COMPUTER SCIENCE	-	Mathematical Foundations of Computer Science	48760
CAD/CAM/CAE	-	Advanced Machine Design	48729
AUTOMOBILE	-	Design of Experiments & Research Methodology	38712

SEMESTER – I

Day &Date : -Friday – 29/11/2019

Time: 10.00 a.m. to 1.00 p.m.

BRANCH	Sub- Branch	Papers	
CIVIL	Structure	Mechanics of Structures Time: 10.00 am to 2.00 p.m.	34342
	Construction & Management	Planning & Management of Projects	34320
ELECTRICAL	Power System	Modern Power System Protection & Related Instrumentation	34337
	Control System	Applied Linear Algebra for Control System	34332
BIOCHEMICAL ENGINEERING & BIO-TECHNOLOGY	-	Advanced Biological Thermodynamics	42983
COMPUTER SCIENCE	-	Advanced Distributed System	48761
CAD/CAM/CAE	-	Computer Aided Manufacturing	48730
AUTO MOBILE	-	Automotive Engines & Emission	38713

SEMESTER – I

Day & Date :- Saturday, 30/11/2019

Time: 10.00 a.m. to 1.00 p.m.

BRANCH	Sub- Branch	Papers	
CIVIL	Structure	Adv. Design of Concrete Structure Time:10.00 am to 2.00 p.m.	34343
	Construction & Management	Construction Methods	34321
ELECTRICAL	Power System	Modern Power System Analysis & Computer Methods	34338
	Control System	Process Control	34333
BIOCHEMICAL ENGINEERING & BIOTECHNOLOGY	-	Advanced Microbiology & Biochemistry	42984
COMPUTER SCIENCE	-	Design & Analysis of Algorithm	48762
CAD/CAM/CAE	-	Finite Element Analysis	48731
AUTO MOBILE	-	Theory of Elasticity & Reliability	38714

SEMESTER - I**Day &Date : - Monday, 02/12/2019 Time: 10.00 a.m. to 1.00 p.m.**

BRANCH	Sub- Branch	Papers	
CIVIL	Structure	Dynamics of Structure Time:10.00 a.m. to 2.00 p.m.	34344
	Construction & Management	Construction Equipment	34322
ELECTRICAL	Power System	E.H.V.A.C. Transmission	34339
	Control System	Digital Signal Processing	34334
BIOCHEMICAL ENGINEERING & BIOTECHNOLOGY		Advanced Bioseparation Processes	42985
COMPUTER SCIENCE	-	Elective – I	
		Unix Network Programming	48763
		Real Time System	48764
		Data Mining & Warehousing	48765
CAD/CAM/CAE	-	Design of Experiments and Research Methodology	48732
AUTOMOBILE	-	Transmission System Theory & Design	38715

SEMESTER-I**Day &Date : - Tuesday, 03/12/2019****Time: 10.00 a.m. to 1.00 p.m.**

BRANCH	Sub- Branch	Papers	
CIVIL	Structure Elective-I	Design of Foundations Time:10.00 a.m. to 2.00 p.m.	35983
		Advances in Concrete Composites	35984
		Structural Optimization	35985
	Construction & Management Elective-I	Entrepreneurship in Construction	34440
		Human Resources Development in Construction	34323
		Work Study & Incentive Management	35993
BIOCHEMICAL ENGINEERING BIO-TECHNOLOGY	Elective-I	Immunotechnology	42986
		Biosensor Technology	42987
		Environmental Biotechnology	42988
		Animal Biotechnology	42989
CAD/CAM/CAE	Elective –I	Mechatronic Systems Design	48733
		Technology Management Engineering	48734
		Tribology & Surface Engineering	48735
		MEMS & Nanotechnology	48736
		Design & Development of CAD/CAM/CAE Software	48737
		Advanced Materials & processing Forming	48738
AUTOMOBILE	Elective –I	Finite Element Analysis	38716
		Hydraulic & Pneumatic System	38717
		Combustion Engineering	38718
		Vehicle Instrumentation & testing	38719
		Automobile Air Conditioning	38720

Sem. I Time: 10.00 a.m. to 1.00 p.m.

DAY & DATE	SUB-BRANCH	PAPER	
Thursday, 28/11/2019	Mechanical- Production Engineering	Advanced Materials and Manufacturing Processes	56210
Friday, 29/11/2019		Design Of Experiments and Research Methodology	56211
Saturday, 30/11/2019		Metal Forming Technology	56212
Monday, 02/12/2019	Elective-I	Facility Planning & Plant Layout	56216
		Advanced Machine Tool Design	56217
		Mechatronic System Design	56218
		Advanced Tooling & Die Design	56219
		Human Resource Management	56220
		Costing & Cost Control	56221
Tuesday, 03/12/2019	Elective-II	Advanced Fluid Power Engineering	56222
		Manufacturing System Design	56223
		MEMS & Nanotechnology	56224
		Supply Chain Management & Logistics	56225
		Engineering Economics	56226
		Financial Management	56227
Only For Student & College Information – Measurements & Instrumentation Lab Subject Code – 56213, Advanced CNC Technology Lab Subject Code – 56214, Seminar-I Subject Code – 56215			

SEMESTER – I : BRANCH – MECHANICAL Time: 10.00 a.m. to 1.00 p.m.

DAY & DATE	SUB-BRANCH	PAPER	
Thursday, 28/11/2019	Mechanical- Product Design & Development	Applied Machine Design	56250
Friday, 29/11/2019		Computer Aided Design and Simulation	56251
Saturday, 30/11/2019		Design Of Experiments and Research Methodology	56252
Monday, 02/12/2019	Elective-I	Advanced Material and Processing	56254
		Industrial Automation	56255
		System Design	56256
		Material Handling Equipment Design	56257
Tuesday, 03/12/2019	Elective-II	Dynamic Analysis & Testing Methodology	56258
		Reverse Engineering	56259
		Computational Fluid Dynamics	56260
		Design Optimization	56261

SEMESTER – I BRANCH - MECHANICAL**New Course- from-December -2012****Time: 10.00 a.m. to 1.00 p.m.**

DAY & DATE	SUB-BRANCH	PAPER	
Thursday, 28/11/2019	Mechanical-Machine Design	Mathematical Modeling And Design Optimization	55589
Friday, 29/11/2019		Advanced Mechanics Of Solids	55590
Saturday, 30/11/2019		Advanced Theory Of Vibrations	55591
Monday, 02/12/2019	Elective-I	Tribology	55592
		Process Equipment Design	55593
		Advanced Finite Element Analysis	55594
		Mechatronics	55595
Tuesday, 03/12/2019	Elective-II	Vibration Control and Condition Monitoring	55596
		Product Design and Development	55597
		Material Handling Equipment Design	55598
		Robotics	55599
Only For Student & College Information			
Instrumentation Lab Subject Code - 55600, Seminar – I Subject Code - 55601			

SEMESTER – I BRANCH - MECHANICAL**New Course- from-December-2012****Time: 10.00 a. m. to 1.00 p.m.**

DAY & DATE	SUB-BRANCH	PAPER	
Thursday, 28/11/2019	Mechanical-Heat Power & Engineering	Advanced Fluid Mechanics	56033
Friday, 29/11/2019		Advanced Heat Transfer	56036
Saturday, 30/11/2019		Advanced Thermodynamics and Combustion	56034
Monday, 02/12/2019	Elective-I	Advanced I.C. engine	56042
		Advanced Refrigeration	56132
		Advanced Power Plant Engineering	56133
Tuesday, 03/12/2019	Elective-II	Advanced Automobile Engineering	56134
		Design Of Air Conditioning Systems	56135
		Energy Analysis and Management	56136

SEMESTER – I BRANCH – MECHANICAL**New-Course- From – DEC – 2012****Time: 10.00 a.m. to 1.00 p.m.**

DAY & DATE	SUB-BRANCH	PAPER	
Thursday, 28/11/2019	Mechanical-Design Engineering	Mathematical Modeling And Design Optimization	56137
Friday, 29/11/2019		Solid Mechanics	56138
Saturday, 30/11/2019		Advanced Engineering Materials	56139
Monday, 02/12/2019	Elective-I	Reliability Engineering	56142
		Process Equipment Design	56143
		Material Handling Equipment Design	56144
		Product Design & Development	56145
Tuesday, 03/12/2019	Elective-II	Robotics	56146
		Machine Tool Design	56147
		Advanced Finite Element Analysis	56148
		Reverse Engineering	56149
Only For Student & College Information			
Instrumentation Lab Subject Code – 56140, Seminar-I Subject Code – 56141			

SEMESTER – I BRANCH – ELECTRONICS

New Course- from – December – 2012

Time: 10.00 a.m. to 1.00 p.m.

DAY & DATE	Sub – Branch	Paper	
Thursday, 28/11/2019	VLSI and Embedded System	CMOS VLSI Design – I	60742
Friday, 29/11/2019		Advanced Digital Signal Processing	60743
Saturday, 30/11/2019		Advanced Embedded System	60744
Monday, 02/12/2019		Digital Systems Engineering	60745
Tuesday, 03/12/2019	Elective-I	DSP VLSI – I	60747
		System on Chip Architecture – I	60748
		Communication System Design	60749
		Algorithm for VLSI Design Automation	60750

SEMESTER-I New course

Branch- Environmental

Time : 10.00 a.m. to 1.00 p.m.

DAY & DATE	BRANCH	PAPER		
Thursday, 28/11/2019	Environmental	Air and Noise Pollution	66362	
Friday, 29/11/2019		Solid and Hazardous Waste Management	66363	
Saturday,30/11/2019		Physics Chemical Process for Water and Wastewater	66364	
Monday, 02/12/2019	Elective-I	Industrial Health and Safety Auditing	66366	
		Optimization Techniques	66367	
		Project Management	66368	
Tuesday, 03/12/2019		Elective-II		
		Energy Management	66369	
		Operation and Maintenance of Treatment Plants	66370	
		Green Building	66371	

SEMESTER – I (New Course)

BRANCH – ELECTRONICS & TELECOMMUNICATION Time: 10.00 a.m. to 1.00 p.m.

DAY & DATE	Branch	Paper	
Thursday, 28/11/2019	Electronics & Telecommunication	Advanced Embedded System	66385
Friday, 29/11/2019		Error Control Coding Techniques	66386
Saturday, 30/11/2019		Advance Wireless Communication	66387
Monday, 02/12/2019		Random Process	66388
Tuesday, 03/12/2019	Elective – I	Mobile Computing	66391
		Digital Data Compression	66392
		Internet Traffic Engineering	66393
		Advanced Antenna Theory	66394

SEMESTER – I
(New Course from December,2016)

Branch - Industrial Engineering
Time: 10.00 a.m. to 1.00 p.m.

DAY & DATE	SUB-BRANCH	PAPER	
Thursday, 28/11/2019	Industrial Engineering	Design of Experiments and Research Methodology	68670
Friday, 29/11/2019		Work Study	68671
Saturday, 30/11/2019		Ergonomics	68672
Monday, 02/12/2019	Elective-I	Stochastic Process and Markov Chains	68673
		Manufacturing System Design	68674
		Probabilistic Risk Assessment	68675
		Project Engineering and Network Analysis	68676
		Technology Management	68677
Tuesday, 03/12/2019	Elective-II	Multivariate Statistical Modeling	68678
		Supply Chain Management	68679
		Reliability Analysis and Prediction	68680
		Queuing Theory and Models	68681
		Total Quality Management	56226 / 68682

Only For Student & College Information : Measurements & Instrumentation Lab Subject Code – 56213,
Advanced CNC Technology Lab Subject Code –56214, Seminar-I Subject Code – 56215

SEMESTER - I

New Course from – December 2014

Time: 10.00 a.m. to 1.00 p. m.

DAY & DATE	BRANCH	PAPER	
Thursday, 28/11/2019	CHEMICAL	Advanced Momentum and Heat Transfer	64209
Friday, 29/11/2019		Advanced Chemical Engineering Thermodynamics	64210
Saturday, 30/11/2019		Process Modeling in Chemical Engineering	64211
Monday, 02/12/2019	Elective-I	Nanotechnology	64212
		Green Technology	64213
		Pharmaceutical Biotechnology	64214
Tuesday, 03/12/2019	Elective-II	Catalysis and Surface Phenomena	64215
		Bioprocess Engineering	64216
		Material Engineering	64217
		Process and Equipment Design	64218

SEMESTER I

New Course from – DEC 2014

Time: 10.00 a.m. to 1.00 p.m.

DAY & DATE	BRANCH	PAPER	
Thursday, 28/11/2019	ELECTRONIC	Advanced Digital Signal processing	63931
Friday, 29/11/2019		CMOS VLSI Design	63932
Saturday, 30/11/2019		Random Signal Processing	63933
Monday, 02/12/2019	Elective-I	High Performance Communication Network	63934
		Design of Digital Circuit and Logic Design	63935
		Optimization Techniques	63936
		Advance Communication System	63937
Tuesday, 03/12/2019	Elective II	Software Defined Radios	63938
		Image Processing And Application	63939
		Design of VLSI System	63940
		Robotic and Application	63941
		Wireless Sensor network	63942
		Industrial DC Drives	63943

SEMESTER I**New Course from – December 2014****Time: 10.00 a.m. to 1.00 p.m.**

DAY & DATE	BRANCH	PAPER	
Thursday, 28/11/2019	CAD-CAM-CAE	Design of Experiments and Research Methodology	63965
Friday, 29/11/2019		Finite Elements Analysis	63966
Saturday, 30/11/2019		Micro Electro-Mechanical System	63967
Monday, 02/12/2019		Computer Aided Manufacturing	63968
Tuesday, 03/12/2019	Elective-I	Advanced Design Engineering	63969
		Advanced Tool Design	63970
		Design of Hydraulic and Phenaulic System	63971
		Mechatronic System Design	63972

SEMESTER – II**Day & Date : - Friday, 29/11/2019****Time: 2.30 p.m. to 5.30 p.m.**

BRANCH	Sub- Branch	Papers	
CIVIL	Structure	Theory of Plates and Shell Time 2.00 p.m. to 6.00 p. m.	34346
	Environment	Air Pollution & Control	34448
	Construction & Management	Const. Techniques	34324
ELECTRICAL	Power System	Power System Planning & Eco.	34515
	Control System	Non-Linear Control System	34526
ELECTRONICS & TELECOMM.	-	RF & Microwave Circuit Design	43027
BIOCHEMICAL ENGINEERING & BIO-TECHNOLOGY	-	Bioreactor Design	43448
COMPUTER SCIENCE	-	Design of Database Systems	48768
CAD/CAM/CAE	-	Manufacturing Systems Design	48742
AUTOMOBILE	-	Engine Design	38722

SEMESTER – II**Day & Date : - Saturday. 30/11/2019****Time: 2.30 p.m. to 5.30 p.m.**

BRANCH	Sub- Branch	Papers	
CIVIL	Structure	Finite Element Method Time 2.00 p.m. to 6.00 p. m.	34347
	Environment	Environmental Pollution & Impact Assessment	36022
	Construction & Management	Legal Aspects in Construction Engg.	34325
ELECTRICAL	Power System	Real Time Control of Power System	34516
	Control System	Optimal Control System	34527
ELECTRONICS & TELECOMM.	-	Wireless Communication	43028
BIOCHEMICAL ENGINEERING & BIO-TECHNOLOGY	-	Advanced Enzyme Technology	43449
COMPUTER SCIENCE	-	Network Core Protocols & Management	48769
CAD/CAM/CAE	-	Product Life Cycle Management	48743
AUTOMOBILE	-	Classic & Body Engg.	38723

SEMESTER - II

Day & Date : - Monday, 02/12/2019

Time: 2.30 p.m. to 5.30 p.m.

BRANCH	Sub- Branch	Papers	
CIVIL	Structure	Earthquake Engineering Time 2.00 p.m. to 6.00 p. m.	34348
	Environment	Waste Management Techniques	34451
	Construction & Management	Management Information System for Construction Management	34326
ELECTRICAL	Power System	H.V.D.C. Transmission	34517
	Control System	Digital Control System	34528
ELECTRONICS & TELECOMM.	-	Adaptive Signal Processing	43029
BIOCHEMICAL ENGINEERING & BIO – TECHNOLOGY	-	Advanced Food Technology	43450
COMPUTER SCIENCE	-	Parallel Algorithms & Design	48770
CAD/CAM/CAE	-	Ind. Automation & Robotics	48744
AUTOMOBILE	-	Vehicle Dynamics	38724

SEMESTER – II

Day & Date :- Tuesday, 03/12/2019

Time: 2.30 p.m. to 5.30 p.m.

BRANCH	Sub- Branch	Papers	
CIVIL	Structure	Advanced Design of Steel Structure Time 2.00 p.m. to 6.00 p. m.	34349
	Environment	Environmental Policy Laws & Economic	36023
	Construction & Management	Computational Methods & Optimization Techniques	34327
ELECTRICAL	Power System	Elective-I H.V. Engg.	34518
		Power Controllers.	34519
		Power System Instrumentation	36015
		Fuzzy Logic & Artificial Neural Network	34520
	Control System	Elective-I Micro-Controllers & Applications	34529
		Optimization Techniques	34530
		Identification & Estimation	34531
		Adaptive Control Systems	34532
		Multivariable Control System	36051
		Robust Control	36052
ELECTRONICS & TELECOMM.	Elective-II	Multi Rate Systems & Filter	43030
		Cryptography & Network Security	43031
		Speech & Audio Processing	43032
BIOCHEMICAL ENGINEERING & BIO-TECHNOLOGY	-	Advanced Genetic Engineering	43451
COMPUTER SCIENCE	Elective – II	Artificial Neural Network & Genetic algorithms	48771
		Operating System Design & Evaluation	48772
		Multicore Architecture & Programming	48773
CAD/CAM/CAE	-	Optimization Techniques	48745
AUTOMOBILE	-	Noise & Vibration	38725

SEMESTER-II

Day & Date : - Wednesday, 4/12/2019

Time: 2.30 p.m. to 5.30 p.m.

BRANCH	Sub- Branch	Papers	
CIVIL	Structure	Elective-II Stability of Structure Time 2.00 p.m. to 6.00 p. m.	35986
		Design of R. C. C. Bridge	35987
		Structural Reliability	34457
		Design of Folded Plates and Shells	35988
	Environment	Elective-II - Environmental Quality Management	36024
		Remote Sensing & GIS Applications in Environmental Engineering	36025
	Construction & Management	Elective-II : Advanced Construction	35995
		Appropriate Technology	35996
		Environmental Impact Assessment	35997
	ELECTRICAL	Power System	Elective-II Adv. Microprocessor of Techniques for Power System
Electric Power Quality & Harmonics			34522
Artificial Intelligence & Expert Systems			36016
Control System		Elective-II Fuzzy & Neural Control	34533
		Applied Optimal Control	36053
		Stochastic Control	36054
		Real Time Computer Control	36055
		Software Applications to Control System	36056
		Robotics	36057
ELECTRONICS & TELECOMM.		Elective-III Mobile Computing	43033
	Stochastic Models & Queuing Theory	43034	
	Communication System Design	43035	
	Optical Networks	43036	
BIOCHEMICAL ENGINEERING & BIO-TECHNOLOGY	Elective-II - Planet Biotechnology	43452	
	Pharmaceutical Biotechnology	43453	
	Advanced protein Engineering	43454	
	Advanced Bioinformatics	43455	
CAD/CAM/CAE	Elective- II - Computational Fluid Dynamics	48746	
	Quality & Reliability Engineering	48747	
	System Dynamics & Simulation	48748	
	Artificial Intelligence	48749	
	Automatic Control Engineering	48750	
	CAD/CAM/CAE Practices in Metal Forming	48751	
	Rapid Prototyping	48752	
AUTOMOBILE	Elective – II		
	Computational Fluid Dynamics	38726	
	Human Resource Development	38727	
	Advanced Automotive Electronics	38728	
	Automotive Maintenance & Management	38729	
	Tribology	38730	
COMPUTER SCIENCE	----	----	

SEMESTER – II BRANCH – MECHANICAL

New Course – From – May, 2013

Time: 2.30 p.m. to 5.30 p.m.

DAY & DATE	SUB-BRANCH	PAPER	
Friday, 29/11/2019	Mechanical-Machine Design	Advanced Material Science	55602
Saturday, 30/11/2019		Advanced Machine Design	55603
Monday, 2/12/2019		Mechanics Of Machinery	55604
Tuesday, 3/12/2019	Elective-III	Experimental Stress Analysis	55605
		Composite Materials	55606
		Advanced Machine Tool Design	55607
		Open Elective	55608
Wednesday, 4/12/2019	Elective-IV	Noise & Vibration Harshness (NVH)	55609
		Vehicle Dynamics	55610
		Engineering Fracture Mechanics	55611
		Reliability Engineering	55612

Only For Student & College Information : Computer Aided Analysis Lab – 55613 T/W Ext. , Seminar – II 55614 Ext. , Comprehensive Viva 55618 Ext.

SEMESTER – II BRANCH - MECHANICAL

New-Course- from – May,2013

Time : 2.30 p.m. to 5.30 p.m.

DAY & DATE	SUB-BRANCH	PAPER	
Friday, 29/11/2019	Mechanical-Heat Power & Engineering	Numerical Computation of Fluid & Heat Flow	56043
Saturday, 30/11/2019		Energy Analysis of Thermal System	56044
Monday, 2/12/2019		Design Of Heat Transfer Equipment's	56045
Tuesday, 3/12/2019	Elective-III	Design Of Renewable Energy Equipment's & System	56049
		Cryogenics	56050
		Open Elective	56053
Wednesday, 4/12/2019	Elective-IV	Gas Turbines & Jet Propulsion	56051
		Advanced Mathematical Methods & Optimization	56052
		Design of pumps, Compressors & Blowers	56054

SEMESTER – II BRANCH - MECHANICAL

New-Course - from – May, 2013

Time: 2.30 p.m. to 5.30 p.m.

DAY & DATE	SUB-BRANCH	PAPER	
Friday, 29/11/2019	Mechanical-Design Engineering	Advanced Theory Of Vibrations	56150
Saturday, 30/11/2019		Advanced Design Engineering	56151
Monday, 2/12/2019		Analysis and Synthesis of Mechanisms	56152
Tuesday, 3/12/2019	Elective-III	Design for Sustainability & Life Cycle Cost	56158
		Tribology	56159
		Open Elective	56160
		Experimental Stress Analysis	56157
Wednesday, 4/12/2019	Elective-IV	Noise And Vibration Harshness (NVH)	56161
		Vehicle Dynamics	56162
		Engineering Fracture Mechanics	56163
		Design for Manufacture & Assembly	56164

Only For Student & College Information : Computer Aided Analysis Lab – 56153 T/W & Ext., Seminar – II 56154 T/W, Comprehensive Viva 56155, Industrial Training 56156

SEMESTER – II BRANCH - MECHANICAL

New – Course – from – May, 2013

Time: 2.30 p.m. to 5.30 p.m.

DAY & DATE	SUB-BRANCH	PAPER	
Friday, 29/11/2019	Mechanical- Production Engineering	Optimization Techniques	56228
Saturday, 30/11/2019		Advanced Casting Technology	56229
Monday, 2/12/2019		Production & Operations Management	56230
Tuesday, 3/12/2019	Elective-III	Fabrication Engg. Welding Technology	56235
		Entrepreneurship Development	56236
		Precision Manufacturing	56237
		Reliability Engineering	56238
		World Class Manufacturing	56239
		Total Quality Management	56240
Wednesday, 4/12/2019	Elective-IV	Plastics Processing & Die Design	56241
		Automatic Control Engineering	56242
		Enterprise Resource Planning	56243
		Industrial Automation & Robotics	56244
		Project Management	56245
		Open Elective	56246

Only For Student & College Information

Adv. Manufacturing Engg. Lab. – 56231 T/W , Ext., Automation & Simulation Lab. - 56232 T/W Ext.
Seminar- II 56233 T/W, Comprehensive Viva Voce 56234 Ext.

SEMESTER – II BRANCH - MECHANICAL

New-Course – from – May, 2013

Time: 2.30 p.m. to 5.30 p.m.

DAY & DATE	SUB-BRANCH	PAPER	
Friday, 29/11/2019	Mechanical-Product Design & Development	Manufacturing System Design	56262
Saturday, 30/11/2019		Creativity, Innovation & New Product Development	56263
Monday, 2/12/2019		Product Life Cycle Management	56264
Tuesday, 3/12/2019	Elective-III	Experimental Stress Analysis	56267
		Reliability Engineering	56268
		Industrial Robotics & Expert System	56269
		Open Elective	56270
Wednesday, 4/12/2019	Elective-IV	Rapid Prototyping	56271
		Engineering Optimization In Design	56272
		AI.& Neural Network	56273
		TQM & Six Sigma	56274

SEMESTER II
BRANCH – VLSI AND EMBEDDED SYSTEM

New Course from – May 2014 Time: 2.30 p.m. to 5.30 p.m.

DAY & DATE	SUB-BRANCH	PAPER	
Friday, 29/11/2019	VLSI AND EMBEDDED SYSTEM	CMOS VLSI DESIGN –II	60751
Saturday, 30/11/2019		Analog & Mixed signal Design	60752
Monday, 2/12/2019		Embedded Software Design	60753
Tuesday, 3/12/2019		Testing & Test ability	60754
Wednesday, 4/12/2019	Elective-II	DSP VLSI – II	60756
		Automotive Embedded System	60757
		Low Power VLSI design	60758
		System on chip Architecture –II	60759

SEMESTER II

New Course from May- 2015 Time: 2.30 p.m. to 5.30 p.m.

DAY & DATE	BRANCH	PAPER	
Friday, 29/11/2019	CHEMICAL	Advanced Mass Transfer System	64221
Saturday, 30/11/2019		Modern Reaction Engineering	64222
Monday, 2/12/2019		Chemical Process Control	64223
Tuesday, 3/12/2019	Elective-III	Computational Fluid Dynamics	64224
		Energy Engineering	64225
		Research Methodology	64226
Wednesday, 4/12/2019	Elective IV	Project Management	64227
		Modern Separation Process	64228
		Down Stream Processing	64229
		Operation Research	64230

SEMESTER II

New Course from – May 2015 Time: 2.30 p.m. to 5.30 p.m.

DAY & DATE	BRANCH	PAPER	
Friday, 29/11/2019	ELECTRONIC	Real Time Embedded System Design	63946
Saturday, 30/11/2019		Advanced Process Control	63947
Monday, 2/12/2019		Power Electronics System	63948
Tuesday, 3/12/2019	Elective-III	Design and Analysis or Algorithms	63949
		Design of Analog and Mixed Mode VLSI Circuits	63950
		Artificial Neural Networks	63951
		Cryptography and Network Security	63952
		Cognitive Radio Communication and Network	64059
Wednesday, 4/12/2019	Elective-IV	Fuzzy System	63954
		VLSI in Digital Signal Processing	63955
		RF & Microwave Circuits	63956
		Renewable & Distributed Energy System	63957
		Advanced Computer Architecture	63958

SEMESTER II

New Course from – December 2014

Time: 2.30 p.m. to 5.30 p.m.

DAY & DATE	BRANCH	PAPER	
Friday, 29/11/2019	CAD-CAM	Product Life Cycle Management	63976
Saturday, 30/11/2019		Advanced Mechanics or Materials	63977
Monday, 2/12/2019		Automation & Robotics	63978
Tuesday, 3/12/2019		Design Optimization Techniques	63979
Wednesday, 4/12/2019	Elective-II	Nano Technology	63980
		Industrial Product Design	63981
		Computational Fluid Dynamics	63982
		Reliability Engineering	63983

Semester-II New Course

Br. Environmental

Time : 2.30 p.m. to 5.30 p.m.

DAY & DATE	BRANCH	PAPER	
Friday, 29/11/2019	Environmental	Industrial Waste Treatment	66372
Saturday, 30/11/2019		Biological Waste Water Treatment	66373
Monday, 2/12/2019		Environmental Impact Assessment and Legislation	66374
Tuesday, 3/12/2019	Elective-III	Remote Sensing and GIS	66376
		Watershed Management	66377
		Environmental Modeling and Simulation	66378
Wednesday, 4/12/2019	Elective IV	Environmental Management System	66379
		Disaster Planning and Risk Analysis	66380
		Environmental Geo technology	66381

SEMESTER-II

Branch Electronics & Telecommunication

Time : 2.30 p.m. to 5.30 p.m.

DAY & DATE	BRANCH	PAPER	
Friday, 29/11/2019	Electronics And Tele communication	Advance Microwave Circuit Design	66395
Saturday, 30/11/2019		Adhoc and Wireless Sensor Network	66396
Monday, 2/12/2019		Computer Vision	66397
Tuesday, 3/12/2019	Elective-II	1-Cryology and Network Security	66400
		2.Multi Rate System	66401
		3.SDR and cognitive Radio Technology	66402
		4.DSP architecture and Algorithm	66403
Wednesday, 4/12/2019	Elective-III	Advanced Operating Systems	66404
		Optimization Techniques	66405
		Industry Automation and Process Control	66406
		Nanotechnology	66407

SEMESTER-II

Branch Industrial Engineering

Time : 2.30 p.m. to 5.30 p.m.

DAY & DATE	BRANCH	PAPER	
Friday, 29/11/2019	Industrial Engineering	Optimization Techniques	68686
Saturday, 30/11/2019		Human Factors Engineering	68687
Monday, 2/12/2019		Production Planning and Inventory Control	68688
Tuesday, 3/12/2019	Elective-III	1-Quality Engineering	68689
		2.Facility Layout and Design	68690
		3. Maintenance Engineering	68691
		4. Scheduling Algorithms	68692
		5. Productivity Management	68693
Wednesday, 4/12/2019	Elective-IV	Multivariate Statistical Modeling	68694
		Logistics Management	68695
		Industrial Safety Engineering	68696
		Industrial Product Design	68697
		World Class Manufacturing	68698

NOTE:

- 4) The examination programme is subject to change. If there is any change in examination programme, it will be communicated in time however the University is not responsible for the loss or inconvenience caused to the candidate. The Candidates are allowed to use the electronic calculators for numerical calculations at their own cost. University will not supply such calculators.
- 5) The cellular Phone, Scientific Calculator & Digital Diary or any means, which can be used for unfair practice, are not allowed in the Examination hall.
- 6) The students should verify the customized time table given on their Hall Ticket with the final programme sent to their college at least two days prior to the date of examination.
- 7) In case of any Query found in respective Question Paper, student shall communicate the same through Principal/Senior Supervisor within 7 days from the date of concerned Question Paper to, Deputy Registrar, Appointment Section, Room No. 205, Exam Building No. 1, Shivaji University, Kolhapur-416004.
- 8) It is hereby informed that these chance to be held in Nov./Dec. 2019 & April/May, 2020 are available for repeater students, if any.

Kolhapur
Date: 23/10/2019

Sd/-
Shri G. R. Palse
I/c. Director,
Board of Examinations and Evaluations