



Laxmi Singh Charitable Trust's (Regd.)

**THAKUR COLLEGE OF
ENGINEERING & TECHNOLOGY**

(Approved by AICTE, Govt. of Maharashtra & Affiliated to University of Mumbai*)
(Accredited Programmes by National Board of Accreditation, New Delhi**)

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ISO 9001 : 2008 Certified

*Permanent Affiliated UG Programmes : • Computer Engineering • Electronics & Telecommunication Engineering • Information Technology (w.e.f.:A.Y.2015-16 onwards)
• Electronics Engineering (w.e.f.:A.Y.2017-18 onwards)

**1st time Accredited UG Programmes : • Computer Engineering • Electronics & Telecommunication Engineering • Information Technology (3 years w.e.f.:16-09-2011)

**2nd time Accredited UG Programmes : • Computer Engineering • Electronics & Telecommunication Engineering • Information Technology • Electronics Engineering (3 years w.e.f.:01-07-2016)

EXAM NOTICE No. 68/2017

Date: 02/11/2017.

To: Students of F. E. to B. E. (Revised Course 2007)

Reference: No. UG 244 of 2017-2018 dated 17/10/2017.

Sub: Regarding Equivalent / Alternative Subjects of B. E. Level Revised Scheme of 2007-2008 to 2012-2013 from Second Half of 2017 (December 2017) Examinations.

With reference to the above, the students of F. E. to B. E. appearing for the examinations under Revised Course 2007 – 2008 are hereby informed that from the **Second Half of 2017 Examinations** they are required to appear for the Equivalent / Alternative subjects of B. E. Level Revised Scheme of 2012 – 2013 (CBSGS). The list of Equivalent / Alternative subjects is attached.

All are required to make to note of it.

Sd/-

**(Dr. B. K. Mishra)
Principal**

COPY TO:

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UNIVERSITY OF MUMBAI
No. UG/244 of 2017-18

CIRCULAR:-

Attention of the Principals of affiliated Colleges in Engineering, (B.E) degree course is invited to this office Circular No.UG/06 of 2013-14, dated 10th April, 2013 relating to the details of Equivalence/alternate subjects of the B.E. degree course. They are informed that the recommendations made by the Faculty of Technology at its meeting held on 19th April, 2017 have been accepted by the Academic Council at its meeting held on 11th May, 2017 vide item no.4.259 and in accordance therewith, the Equivalence/alternate subjects of the B.E. Level Revised Scheme of 2007-08 to 2012-13 (i.e. from December 2017 Exam.) and the same has been brought into force with effect from the academic year 2017-18. (The same is available on the University's web site (www.mu.ac.in)).

MUMBAI – 400 032
17th October, 2017


(Dr. Dinesh Kamble)
I/c REGISTRAR

To,

The Principals of affiliated Colleges in Engineering.

A.C/ 4.259/11/05/2017.

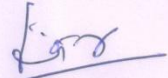
No. UG/244-A of 2017

MUMBAI-400 032

17th October, 2017

Copy forwarded with compliments for information to:-

- 1.The Co-Ordinator, Faculty of Science & Technology,
- 2.The Chairmen/Chairpersons of various Board of the Studies in Engineering and Technology.
- 3.The Offg. Director, Board of Examinations and Evaluation,
- 4.The Director, Board of Students Development.,
- 5.The Co-Ordinator, University Computerization Centre,


(Dr. Dinesh Kamble)
I/c REGISTRAR

Details of equivalent / alternative subjects between FE R-2007-08, R-2012-13 scheme for Institutions' and examinations

	R-2007-08 Subject	R-2012-13 Subject
	FE Sem-I	FE Sem-I
1	Applied Mathematics-I	Applied Mathematics-I
2	Applied Physics-I	Applied Physics-I
3	Applied Chemistry-I	Applied Chemistry-I
4	Engineering Mechanics	Engineering Mechanics
5	Basic Electrical & Electronics Engineering	Basic Electrical & Electronics Engineering
6	Computer Programming-I	Structured Programming Approach
	FE Sem-II	FE Sem-II
1	Applied Mathematics-II	Applied Mathematics-II
2	Applied Physics-II	Applied Physics-II
3	Applied Chemistry-II	Applied Chemistry-II
4	Engineering Drawing	Engineering Drawing
5	Communication Skills	Communication Skills
6	Computer Programming-II	Structured Programming Approach

Equivalent / alternate subjects for Rev. 2007 to Rev. 2012.of B.E. (Computer Engineering)

	Rev. 2007	Equivalent / alternate in Rev. 2012
Sem. III	Applied Mathematics III	Applied Mathematics III
	Electronic Devices & Linear Circuits	Electronic Circuits and Communication Fundamentals
	Discrete Structure & Graph Theory	Discrete Structures
	Digital Logic Design & Application	Digital Logic Design and Analysis
	Data Structure and Files	Data Structures
	Computer Organization & Architecture	Computer Organization & Architecture
Sem. IV	Applied Mathematics IV	Applied Mathematics IV
	Analog & Digital Communication	Computer Network
	Database Management System	Data Base Management systems
	Computer Graphics	Computer Graphics
	Analysis of Algorithm & Design	Analysis of Algorithms
	Operating System	Operating System
Sem. V	Computer Network	Computer Network
	Advance database Management System	Distributed Database
	Microprocessor	Microprocessor
	Theory of Computer Science	Theory of Computer Science
	Web Engineering	
	Environment Studies	Environment Studies
Sem. VI	Advance Computer Network	Adhoc. Wireless Networks
	System Programming And Compiler Construction	System Programming And Compiler Construction
	Object Oriented Software Engineering	Software Engineering
	Advance Microprocessor	Microprocessor
	Data Warehouse And Data Mining	Data Warehouse And Mining
Sem. VII	Digital Signal & Image Processing	Digital Signal Processing
	Intelligent System	Artificial Intelligence
	Mobile Computing	Adhoc. Wireless Networks
	Elective- I 1) Computer Simulation & Modeling 2) E-commerce 3) Project Management 4) Soft Computing	1) Computer Simulation and Modeling 2) ERP and Supply Chain Management 3) Software Architecture 4) Soft Computing
Sem. VIII	Distributed Computing	Parallel and distributed Systems
	Multimedia System Design	Digital Forensic
	Software Architecture	Software Architecture
	Elective-II 1) Human Computing Interaction 2) Advanced Internet Technology 3) Computer Vision 4) Embedded System	1) Human Computing Interaction 2) Digital Forensic 3) Image Processing 4) Embedded System

Electronics and telecommunication engineering (EXTC)

**Equivalent subjects of R-2007 to Rev-2012
(Effective from A .Y. 2017-18(i.e. Nov – 2017))**

SEM	SR .N O	SUBJECTS OF R-2007	EQUIVALENT SUBJECT OF REV-2012	EQUIVALENT SEM.	
SEM –III	01	Applied Mathematics - III	Applied Mathematics -III	SEM - 3	
	02	Digital Logic Design	Digital Electronics	SEM - 3	
	03	Electronic Devices And Circuits	Analog Electronics – I	SEM - 3	
	04	Electrical Networks	Circuits And Transmission Line	SEM - 3	
	05	Electronic Instrumentation	Electronic Instrument & Measurement	SEM - 3	
	06	Presentation And Communication Technology	Business Communication And Ethic	SEM - 5	
SEM – IV	01	Applied Mathematics – IV	Applied Mathematics -IV	SEM - 4	
	02	Analog And Digital IC Design & Applications	Integrated Circuits	SEM- 5	
	03	Principle Of Communication Engg.	Analog Communication	SEM- 5	
	04	Electronics Devices And Circuits - II	Analog Electronics – II	SEM -4	
	05	Electromagnetic Wave Theory	Wave Theory And Propagation	SEM -4	
	06	Simulation Software Workshop	Simulation Software Lab	SEM- 4 (PRACTICAL)	
SEM –V	01	Random Signal Analysis	Random Signal Analysis	SEM –5	
	02	Microprocessors And Microcontroller	Microprocessors And Peripherals	SEM –4	
	03	RF Circuit Design	RF Modeling & Antennas	SEM –5	
	04	Signals And Systems	Signals And Systems	SEM –4	
	05	Principle Of Control Systems	Control Systems	SEM –4	
	06	Electronics Hardware Workshop	Mini Project-1	SEM –5	
	07	Environmental Studies (50 Marks)			
SEM-VI	01	Microprocessors And Microcontroller- II	Microcontroller And Applications	SEM –5	
	02	Antenna And Wave Propagation	RF Modeling And Antennas	SEM-5	
	03	Industrial Economic And Telecom Regulating	Telecom Network & Management	ELECTIVE (SEM- 8)	
	04	Digital Communication	Digital Communication	SEM-6	
	05	TV And Video Engineering	Television Engineering	SEM-6	
	06	Elective	1) Acoustics Engineering	Speech Processing (Alternate Subject)	SEM-8 ELECTIVE
		Elective	2)Micro Electronics	Analog & Mixed Signal – VLSI	SEM – 7 ELECTIVE
		Elective	3)Radar Engineering	Microwave & Radar Engineering	SEM -7
		Elective	4)Digital Telephony	Digital Communication	SEM – 6
		Elective	5)Neural Networks And Fuzzy Logic	Neural Network And Fuzzy Logic	ELECTIVE SEM – 7
SEM – VII	01	Mobile communication	Mobile communication	SEM – 7	
	02	Fundamentals of microwave engineering	Microwave and radar engineering	SEM – 7	
	03	Computer communication network	Computer Communication	SEM – 6	

			and Telecom Networks		
	04	Discrete time signal processing		Discrete Time Signal Processing	SEM – 6
	05	Elective	Data Compressing And Encryption	Data Compressing And Encryption	SEM – 7 (ELECTIVE)
		Elective	Introduction to VLSI	Analogue & Mixed Signal - VLSI	SEM – 7 (ELECTIVE)
		Elective	Speech Processing	Speech Processing	SEM – 8 (ELECTIVE)
		Elective	Electronic Product Design	Telecom Network & Management (Alternate subject)	SEM – 8 (ELECTIVE)
SEM – VIII					
	1.	Advance Microwave Engg.		Microwave Integrated Circuit	SEM – 8 (ELECTIVE)
	2	Optical Fiber Communication		Optical Communication & Networking	SEM – 7
	3	Wireless Network		Wireless Network	SEM – 8
	4	Elective			
		1) Image Processing		Image And Video Processing	SEM-7
		2) Satellite Communication		Satellite Communication & Networks	SEM – 8
		3) Telecom Network Management		Telecom Network & Management	SEM – 8 (ELECTIVE)
		4) Microwave Integrated Circuit		Microwave Integrated Circuit	SEM – 8 (ELECTIVE)

Equivalent subject in **Information Technology**

Sr. No.	Equivalent Subject Sem –III (R-2007)	Equivalent Subject (R-2012)
1	Applied Mathematics-III	Applied Mathematics-III
2	Data Structures and Algorithms	Data Structure and Algorithm Analysis (SEM-III R-2012)
3	Electronic Devices & Circuits	Analog and Digital Circuits (SEM-III R-2012)
4	Digital Logic Design & Application	
5	GUI & Database Management	Database Management Systems (SEM-III R-2012)
6	Communication & Presentation Techniques	Business Communication and Ethics (SEM-V R-2012)

Sr. No.	Equivalent Subject Sem –IV (R-2007)	Equivalent Subject (R-2012)
1	Computational Mathematics	Applied Mathematics-IV
2	Principles of Communication	Principles of Analog and Digital Communication (SEM-IV R-2012)
3	Microprocessors & Microcontrollers	Microcontroller and Embedded Systems (SEM-V R-2012)
4	Internet Programming	Web Programming (SEM-IV R-2012)
5	Networking technology for Digital devices	Computer Networks (SEM-IV R-2012)
6	Financial accounting & Management of technology Innovation	Production planning and control B.E Mechanical Sem VII

Sr. No.	Equivalent Subject Sem –V (R-2007)	Equivalent Subject (R-2012)
1	Operating System for Computational Devices	Operating Systems (SEM-V R-2012)
2	Computer Graphics and Virtual Reality Systems	Computer Graphics and Virtual Reality (SEM-V R-2012)
3	Convergence of Technologies and Networking in Communication	Wireless Technology (SEM-VII R-2012)
4	Manufacturing processes, Planning and Systems	Production planning and control B.E Mechanical Sem VII
5	Object Oriented Analysis and Design	Software Engineering (SEM-VI R-2012)
6	Environmental Studies	Business Communication and Ethics (SEM-V R-2012) common for Communication & Presentation Techniques (2007)

7	Open Source Software Laboratory	Open Source Technologies (SEM-V R-2012)
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Sr. No.	Equivalent Subject Sem –VI (R-2007)	Equivalent Subject (R-2012)
1	Information and Network Security	System and Web Security (SEM-VI R-2012)
2	Middleware and Enterprise Integration Technologies	Object Oriented Programming Methodology (SEM-III R-2012)
3	Software Engineering	Software Engineering (SEM-VI R-2012)
4	Data Base Technologies	Advanced Database Management Systems (SEM-V R-2012)
5	Programming for Mobile and Remote Computers	Object Oriented Programming Methodology (SEM-III R-2012) Common for Middleware and Enterprise Integration Technologies (2007)
6	Information Technology for Management of Enterprise	E-Commerce & E-Business (Elective- I SEM-VII R-2012)

Sr. No.	Equivalent Subject Sem –VII (R-2007)	Equivalent Subject (R-2012)
2	Data Warehousing, Mining & Business Intelligence	Data Mining and Business Intelligence (SEM-VI R-2012)
3	Digital Signal & Image Processing	Image Processing (Elective- I SEM-VII R-2012)
4	Simulation and Modeling	Computer Simulation and Modeling (SEM-VIII R-2012)
6	Software testing & Quality Assurance	Software Testing & Quality Assurance (Elective- II SEM-VIII R-2012)
7	Elective – I Wireless Network Multimedia Systems Evolutionary Algorithms IT in Construction Nanotechnology Geographical Information	Wireless Technology (SEM-VII R-2012) Multimedia Systems (Elective- I SEM-VII R-2012) Data Structure and Algorithm Analysis (SEM-III R-2012) CAD /CAM B Mech Sem VII Mec702 Nanotechnology BE MEch Sem VIII

	Systems Artificial Intelligence	Geographical Information Systems (Elective- II SEM-VIII R-2012) Intelligent System (SEM-VIII R-2012)
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Sr. No.	Equivalent Subject Sem –VIII (R-2007)	Equivalent Subject (R-2012)
1	Information Storage Management and Disaster Recovery	Storage Network Management and Retrieval (SEM-VIII R-2012)
2	Gaming Architecture and Programming	Artificial Intelligence BE comp Sem VII
3	Software Project Management	Software Project Management (SEM-VII R-2012)
4	Elective – II Cloud Computing IT for Health Care Service Oriented Architecture E-Government ERP & CRM Mobile & Ecommerce Robotics and Machine Intelligence	Cloud Computing (SEM-VII R-2012) Healthcare informatics sem VIII Elective Biomedical Advance Internet Technology (SEM-VI R-2012) E-Commerce & E-Business (Elective- I SEM-VII R-2012) Enterprise Resource Planning (Elective- II SEM-VIII R-2012) E-Commerce & E-Business (Elective- I SEM-VII R-2012) Robotics (Elective- I SEM-VII R-2012)

B.E.(Electronics Engineering) Equivalent/Alternate Course Subjects

B.E.(Electronics Engineering)R-2007		B.E.(Electronics Engineering) CBGS R-2012	
Course Code	Old Course	Equivalent/Alternate course in CBGS	Course Code
	SEM III		
	Engineering Mathematics	Applied Mathematics-III	EXS301
	Basics of Electronics Circuits	Electronic Devices	EXC302
	Digital System Design	Digital Circuits and Design	EXC303
	Electrical Network Analysis and Synthesis	Circuit Theory	EXC304
	Control System	Principles of Control Systems	EXC404
	Presentation and communication Techniques	Business Communication and Ethics	EXS506
	SEM IV		
	Advanced Engineering Mathematics	Applied Mathematics-IV	EXS401
	Electronics Circuit Analysis and Design	Discrete Electronic Circuits	EXC402
	Digital System Design II	ASIC Verification	EXC7053
	Basics of Analog and Digital Communication System	Fundamentals of Communication Engineering	EXC405
	Electronic and Electrical Measuring Instruments and Machine	Electrical Machines	EXC406
	Electronic Workshop-I	Mini Project I	EXL405
	SEM V		
	Continuous Time Signal and System	Signals and System	EXC504
	Microprocessors and Microcontrollers-I	Microcontrollers and Applications	EXC501
	Electromagnetic Engineering	Electromagnetic Engineering	EXC503
	Linear Integrated Circuits and Design	Designing with Integrated Circuits	EXC502
	Digital Communication and Coding Techniques	Digital Communication	EXC505
	EVS	Environmental Sciences	FEC106
	Electronic Workshop-II	Mini Project-II	EXL605

	SEM VI		
	Discrete Time Signals and Systems	Digital Signal Processing and Processors	EXC605
	Microprocessors and Microcontrollers-II	Embedded System Design	EXC701
	Microwave Devices and Circuits	Optical Fiber Communication	EXC7054
	Electronic Instrumentation System	Advanced Instrumentation Systems	EXC602
	Power Electronics	Power Electronics-I	EXC604
	Elective I		
	Communication Systems and Applications	Digital Communication	EXC505
	Medical Electronics	Biomedical Electronics	EXC8044
	Computer Organization	Computer Organization	EXC603
	SEM VII		
	VLSI design	Basic VLSI Design	EXC601
	Filter Design		
	Power Electronics and Drives	Power Electronics-II	EXC703
	Communication Networks	Computer Communication Networks	EXC704
	Elective-II		
	Wireless Communication	Advanced Networking Technologies	EXC802
	Advances in Biomedical Instrumentation	Advanced Instrumentation Systems	EXC602
	Microcomputer System Design	Embedded System Design	EXC701
	Digital Image Processing and Design	Digital Image Processing	EXC7051
	SEM VIII		
	Advanced VLSI Design	CMOS VLSI Design	EXC801
	Robotics and Automation	Robotics	EXC8041
	Embedded Systems and Real Time Programming	Embedded System Design	EXC701
	Elective III		
	Advanced Networking Technologies	Advanced Instrumentation Systems	EXC602
	DSP Processors and Architectures	Digital Signal Processing and Processors	EXC605
	Neural Networks and Fuzzy Systems	<ul style="list-style-type: none"> • Artificial Intelligence 	EXC7052
	Electronics Product Design	<ul style="list-style-type: none"> • ASIC Verification 	EXC7053

