

ANNA UNIVERSITY:: CHENNAI 600 025

Office of the Controller of Examinations

Date: 8/08/2017

KIND ATTENTION

CHANGE IN THE QUESTION PAPER PATTERN FOR NOV./DEC.-2017 - EXAMINATIONS

U.G. Candidates those who are appearing for **FIFTH SEMESTER** under **Regulations 2013 (Both Regular and Arrear)** shall have the **New Pattern** of question paper except for **MATHEMATICS**. Also some subjects of **Fifth semester are common with other semesters**. Examinations for these Subjects are also to be conducted under **New Pattern**. The details are given below. The change in the Question paper pattern for Third semester examinations has been notified already for November / December 2016 Examinations dated 18/07/2016.

NEW PATTERN:

PART:- A

10 x 2 = 20 Marks (Answer All the Questions)

PART:- B

5 x 13 = 65 Marks (Answer the Questions Either or Choice)

PART:- C

1 x 15 = 15 Marks (Either or Choice)

However for case study/Comprehensive type Questions, there will be no choice

List of Fifth Semester Subjects of Regulations 2013 Covered by the New Pattern

SUBJECT CODE	SUBJECT TITLE
AE6501	Flight Dynamics
AE6502	Aircraft Structures - II
AE6503	Aerodynamics - II
AE6504	Propulsion - II
AE6505	Control Engineering
AI6501	Irrigation and Drainage Engineering
AI6502	Solar and Wind Energy Engineering
AI6503	Farm Equipment
AI6504	Design of Agricultural Machinery
AI6505	Post Harvest Technology
AI6506	Agricultural Economics and Farm Management
AN6501	Manufacturing System Management
AN6502	Measurements and Controls
AR6001	Art Appreciation
AR6002	Energy Efficient Architecture
AR6003	Theory of Design
AR6501	Design of Structures - II
AR6502	History of Architecture and Culture - V
AR6511	Building Services - II
AR6512	Site Analysis and Planning
AT6501	Automotive Transmission
AT6502	Automotive Electrical and Electronics Systems
AT6503	Vehicle Design Data Characteristics
AT6504	Automotive Fuels and Lubricants
BM6007	Internet and Java Programming
BM6501	Bio Control Systems
BM6502	Diagnostic and Therapeutic Equipment - I
BM6503	Bio Materials and Artificial Organs
BM6504	Biomedical Instrumentation
BM6602	Biomechanics
BM6702	Medical Informatics
BT6001	Introduction to Symbolic Mathematics
BT6002	Biophysics
BT6003	Principles of Food Processing
BT6004	Advanced Biochemistry
BT6005	Biological Spectroscopy
BT6006	Biopharmaceutical Technology
BT6501	Protein Structure Function and Proteomics
BT6502	Bioprocess Engineering
BT6503	Mass Transfer Operation
BT6504	Molecular Biology
BT6604	Chemical Reaction Engineering
CE6501	Structural Analysis I
CE6501T	Structural Analysis I
CE6502	Foundation Engineering
CE6502T	Foundation Engineering
CE6503	Environmental Engineering I
CE6503T	Environmental Engineering I

List of Fifth Semester Subjects of Regulations 2013 Covered by the New Pattern

SUBJECT CODE	SUBJECT TITLE
CE6504	Highway Engineering
CE6504T	Highway Engineering
CE6505	Design of Reinforced Concrete Elements
CE6505T	Design of Reinforced Concrete Elements
CE6506	Construction Techniques, Equipment and Practice
CE6506T	Construction Techniques, Equipment and Practice
CE6567	Hydrology and Water Resources Engineering
CH6455	Chemical Engineering Thermodynamics
CH6501	Instrumental Methods of Analysis
CH6502	Chemical Process Industries II
CH6503	Chemical Engineering Thermodynamics II
CH6504	Heat Transfer
CH6505	Mass Transfer-I
CH6557	Mass Transfer I
CS6302	Database Management Systems
CS6303	Computer Architecture
CS6401	Operating Systems
CS6501	Internet Programming
CS6502	Object Oriented Analysis and Design
CS6503	Theory of Computation
CS6504	Computer Graphics
CS6551	Computer Networks
CS6659	Artificial Intelligence
EC6501	Digital Communication
EC6502	Principles of Digital Signal Processing
EC6503	Transmission Lines and Wave Guides
EC6504	Microprocessor and Microcontroller
EC6801	Wireless Communication
EE6501	Power System Analysis
EE6502	Microprocessors and Microcontrollers
EE6503	Power Electronics
EE6504	Electrical Machines - II
EI6001	Data Structures and Algorithms
EI6501	Analytical Instruments
EI6502	Industrial Instrumentation-I
EL6501	Corrosion Science & Engineering
EL6502	Chemical Process Technology
EL6503	Electrodiodes and Electrocatalysis
EL6504	Electrochemical Reaction Engineering
EL6505	Instrumental Methods of Analysis
EN6501	Municipal Solid Waste Management
EN6502	Air and Noise Pollution Control
EN6503	Environmental Policy and Legislations
EN6504	Basic Structural Design
EN6505	Occupational Hazards and Industrial safety
FD6001	Biology and Chemistry of Food Flavours
FD6002	Biologically Active Phytochemicals in Food
FD6003	Human Nutrition

List of Fifth Semester Subjects of Regulations 2013 Covered by the New Pattern

SUBJECT CODE	SUBJECT TITLE
FD6501	Milling Technology for Food Materials
FD6502	Refrigeration and Cold chain Management
FD6503	Food Additives
FD6504	Food Processing and Preservation
FT6501	Textile Chemical Processing - II
FT6502	Textile and Apparel Quality Evaluation
FT6503	Garment Finishing and Clothing Care
FT6504	Apparel Production Planning and Control
FT6505	Pattern Engineering II
GE6075	Professional Ethics in Engineering
GE6075T	Professional Ethics in Engineering
GE6351	Environmental Science and Engineering
GI6501	Geo database system
GI6502	Geodesy
GI6503	Digital Image Processing for Geoinformatics Engineers
GI6504	Geographic Information System
GI6505	Microwave Remote Sensing
GI6506	Survey Adjustment
HT6501	Advanced Fabric Structure
IC6501	Control Systems
IE6001	Multivariate and Statistical Analysis
IE6002	Information Systems Analysis and Design
IE6501	Operations Research - II
IE6502	Statistical Quality Control
IE6503	Applied Ergonomics
IE6504	Manufacturing Automation
IE6601	Productivity Management and Re-engineering
IE6602	Operations Scheduling
IE6604	Facility Layout and Materials Handling
IM6001	Services Operations Management
IT6501	Graphics and Multimedia
IT6502	Digital Signal Processing
IT6503	Web Programming
MD6501	Hospital Management
ME6015	Operations Research
ME6302	Manufacturing Technology - I
ME6501	Computer Aided Design
ME6501T	Computer Aided Design
ME6502	Heat and Mass Transfer
ME6502T	Heat and Mass Transfer
ME6503	Design of Machine Elements
ME6503T	Design of Machine Elements
ME6504	Metrology and Measurements
ME6504T	Metrology and Measurements
ME6505	Dynamics of Machines
ME6505T	Dynamics of Machines
ME6701	Power Plant Engineering
MF6501	Casting and Welding Technology

List of Fifth Semester Subjects of Regulations 2013 Covered by the New Pattern

SUBJECT CODE	SUBJECT TITLE
MF6502	Metal Forming Technology
MF6503	Precision Engineering
MF6504	Hydraulics and Pneumatics
MF6505	CNC Machining Technology
MG6082	Maintenance Engineering and Management
MG6091	Industrial Management
MG6571	Human Resource Management
MG6851	Principles of Management
ML6501	Theory and Applications of Metal Forming
ML6502	Material Aspects in Design
ML6503	Characterization of Materials
ML6504	Heat Treatment of Metals and Alloys
ML6505	Welding Metallurgy
ML6506	Corrosion and Surface Engineering
MS6501	Economics for Business Decisions
MS6502	Applied Thermodynamics
MS6503	Metrology and Quality Assurance
MT6501	Sensors and Signal Processing
MT6502	Thermodynamics Principles and Applications
MT6602	Applied Hydraulics and Pneumatics
MV6501	Marine Auxiliary Machinery I
MV6502	Marine Diesel Engines II
MV6503	Stability of Ships
MV6504	Ship Construction
MV6505	Mechanics of Marine Machines
MV6506	Marine Boilers and Steam Engineering
PC6401	Materials Technology
PC6501	Heat Transfer
PC6502	Mass Transfer Fundamentals
PC6503	Petroleum Exploration and Exploitation Techniques
PC6505	Natural Gas Engineering
PE6501	Well Drilling Equipments and Operation
PE6502	Well Logging
PE6503	Drilling fluids and Cementing Techniques
PE6504	Field Development Geology
PE6505	Reservoir Engineering II
PL6501	Polymer Rheology
PL6502	Polymerization Engineering
PL6503	CAD/CAM/CAE for Plastics Engineering
PL6504	Plastics Materials & Applications II
PL6505	Plastics Processing Technology I
PM6501	Mass Transfer I
PM6502	Chemical Reaction Engineering
PR6501	Engineering Metrology and Measurements
PR6502	Engineering Statistics and Quality Control
PR6503	Machine Elements Design
PR6504	Foundry Technology
PT6501	Polymer Rheology and Fluid Mechanics

List of Fifth Semester Subjects of Regulations 2013 Covered by the New Pattern

SUBJECT CODE	SUBJECT TITLE
PT6502	Polymer Compounding Technology
PT6503	Analysis and Characterisation of Polymers
PT6504	Processing Technology I
PT6505	Thermosets and composites
PY6001	Pharmaceutical Production Management
PY6002	Unit Process in Organic Synthesis
PY6003	Validation in Pharmaceutical Industries
PY6004	Genetic Engineering and Pharmacogenomics
PY6005	Pharmacognosy
PY6501	Biochemical Engineering
PY6502	Analytical Methods of Pharmaceuticals
PY6503	Regulatory Requirements in Pharmaceutical Industries
PY6504	Medicinal Chemistry
RO6501	Programmable Logic Controllers
RO6502	Basics of Robotics
RO6503	Mechanical Design
TC6501	Chemistry of Textile Auxiliaries
TC6502	Wet Processing Machinery
TC6503	Dyeing of Textile Materials-I
TC6504	Technology of Printing- I
TC6505	Computer Colour Matching
TC6506	Dyeing of Synthetic Textiles
TT6501	Process Control in Spinning
TT6502	Quality Evaluation of Fibres and Yarns
TT6503	Knitting Technology
TT6504	Chemical Processing of Textile Materials - I
TT6505	Technology of Manufactured Fibre Production

List of Subjects of Fifth Semester which are Common with other semesters

Pattern of Question Paper : **NEW PATTERN**

SUBJECT CODE	SUBJECT TITLE
BM6007	Internet and Java Programming
BM6504	Biomedical Instrumentation
BM6602	Biomechanics
BM6702	Medical Informatics
BT6604	Chemical Reaction Engineering
CE6567	Hydrology and Water Resources Engineering
CH6455	Chemical Engineering Thermodynamics
CS6302	Database Management Systems
CS6303	Computer Architecture
CS6401	Operating Systems
CS6502	Object Oriented Analysis and Design
CS6503	Theory of Computation
CS6551	Computer Networks
CS6659	Artificial Intelligence
EC6502	Principles of Digital Signal Processing
EC6504	Microprocessor and Microcontroller
EC6801	Wireless Communication
EE6502	Microprocessors and Microcontrollers
EN6501	Municipal Solid Waste Management
GE6075	Professional Ethics in Engineering
GE6075T	Professional Ethics in Engineering
GE6351	Environmental Science and Engineering
IE6001	Multivariate and Statistical Analysis
IE6501	Operations Research - II
IE6504	Manufacturing Automation
IE6601	Productivity Management and Re-engineering
IE6602	Operations Scheduling
IE6604	Facility Layout and Materials Handling
IT6502	Digital Signal Processing
ME6015	Operations Research
ME6302	Manufacturing Technology - I
ME6501	Computer Aided Design
ME6502	Heat and Mass Transfer
ME6503	Design of Machine Elements
ME6504	Metrology and Measurements
ME6505	Dynamics of Machines
ME6701	Power Plant Engineering
MF6503	Precision Engineering
MF6504	Hydraulics and Pneumatics
MF6505	CNC Machining Technology
MG6091	Industrial Management
MG6571	Human Resource Management
MG6851	Principles of Management

List of Subjects of Fifth Semester which are Common with other semesters

Pattern of Question Paper : **NEW PATTERN**

SUBJECT CODE	SUBJECT TITLE
MT6602	Applied Hydraulics and Pneumatics
PC6401	Materials Technology
PC6501	Heat Transfer
TT6503	Knitting Technology

List of Fifth Semester Subjects of Regulations 2013 Covered by the NEW Pattern

THEORY CUM STUDIO

NEW PATTERN: PART - A 10 X 2 = 20 (Marks)

PART - B 4 X 16 = 64 (Marks)

PART -C 1X16 = 16 (Marks)

SUBJECT CODE	SUBJECT TITLE
AR6511	Building Services - II
AR6512	Site Analysis and Planning

List of Fifth Semester Subjects of Regulations 2013 Covered by the Old Pattern

OLD PATTERN: PART - A 10 X 2 = 20 (Marks)

PART - B 5 X 16 = 80 (Marks)

SUBJECT CODE	SUBJECT TITLE
MA6452	Statistics and Numerical Methods
MA6459	Numerical Methods
MA6566	Discrete Mathematics