B.Tech **352 COMPREHENSIVE EXAM

LIST OF COURSES FOR OBJECTIVE TYPE EXAMINATION

COMMON COURSES FOR ALL BRANCHES (10 questions)

1	MA101 Calculus (1 question)
2	MA102 Differential Equations (1 question)
3	BE100 Engineering Mechanics (2 questions)
4	BE110 Engineering Graphics (2 questions)
5	BE103 Introduction to Sustainable Engineering (2 questions)
6	BE102 Design & Engineering (2 questions)

BRANCH SPECIFIC CORE COURSES
(40 questions – minimum 6 questions from each course)

1. Aeronautical Engineering	
1	AO201 Aircraft Basics and Controls
2	AO206 Propulsion - I
3	AO202 Aerodynamics - I
4	AO204 Aircraft Structures - I
5	AO301 Aerodynamics -II
6	AO305 Flight Mechanics

2. Applied Electronics and Instrumentation Engineering	
1	AE301 Control System
2	EC201 Network Theory
3	AE303 Electrical Measurements & Measuring Instruments
4	EC204 Analog Integrated Circuits
5	AE204 Sensors and Transducers
6	EC207 Logic Circuit Design

3. Automobile Engineering	
1	AU201 SI Engines & Combustion
2	AU203 Auto Chassis
3	AU204 CI Engines & Combustion
4	AU206 Auto Transmission
5	ME311 Manufacturing Processes
6	AU307 Vehicle Body Engineering

4. Biomedical Engineering	
1	BM201 Basic Medical Sciences for Engineers
2	BM202 Biophysics
3	BM204 Integrated Circuits & Systems
4	BM301 Biomedical Signals & Systems
5	BM303 Biosensors & Transducers
6	BM307 Hospital Engineering

5. Biotechnology	
1	BT201 - Fluid flow and particle technology
2	BT207 - Microbiology
3	BT202 - Bioprocess heat transfer
4	BT208 - Principles of Biochemistry
5	BT309 - Enzyme Engineering and Technology
6	BT305 - Cellular and Molecular Biology

6. Chemical Engineering	
1	CH205: Fluid and Particle Mechanics I
2	CH202: Process Heat Transfer
3	CH204: Chemical Engineering Thermodynamics
4	CH303: Mass Transfer Operations I
5	CH301: Environmental Engineering
6	CH305: Chemical Reaction Engineering I

7. Civil Engineering	
1	CE201: Mechanics of Solids
2	CE203: Fluid Mechanics I
3	CE202: Structural Analysis I
4	CE204: Construction Technology
5	CE208: Geotechnical Engineering I
6	CE301: Design of Concrete Structures-I

8. Computer Science and Engineering	
1	CS201: Discrete Computational Structures
2	CS205: Data Structures
3	CS202: Computer Organization and Architecture
4	CS204: Operating Systems
5	CS208: Principles of Database Design
6	CS301; Theory of Computation

9. Electrical and Electronics Engineering	
1	EE201 : Circuits and Networks.
2	EE203 : Analog Electronic Circuits
3	EE205 : DC Machines and Transformers
4	EE204: Digital Electronics and Logic Design
5	EE303 : Linear Control Systems
6	EE301: Power Generation, Transmission and Protection

10. Electronics and Biomedical Engineering	
1	BM201 Basic Medical Sciences for Engineers
2	IC207 Design of Logic Circuits
3	BM204 Integrated Circuits & Systems
4	BM301 Biomedical Signals & Systems
5	BM303 Biosensors & Transducers
6	IC206 Microcontrollers

11. Electronics and Communication Engineering	
1	EC201 Network Theory
2	EC205 Electronic Circuits
3	EC207 Logic Circuit Design
4	EC202 Signals & System
5	EC208 Analogue Communication Engineering
6	EC303 Applied Electromagnetic Theory

12. Food Technology	
1	FT201 Food Microbiology
2	FT205 Fundamentals of Heat and Mass Transfer
3	FT204 Engineering Properties of Biological Materials
4	FT303 Unit operations in Food Processing
5	FT305 Food Process Engineering
6	FT307 Food Analysis

13. Industrial Engineering	
1	IE303 Operations Research
2	IE305 Work Study & Ergonomics
3	ME303 Machine Tools & Digital manufacturing
4	ME220 Manufacturing Technology
5	ME200 Fluid Mechanics & Machinery
6	ME213 Theory of Machines

14. Information Technology	
1	CS 205 Data structures
2	CS 202 Computer Organization & Architecture
3	CS 208 Principles of Database Design
4	IT 303 Theory of Computation
5	IT 305 Operating Systems
6	IT 307 Computer Networks

15. Instrumentation and Control Engineering

1	IC 201 - Basic Instrumentation Engineering and Transducers
2	IC 207- Design of logic circuits
3	BM 204 - Integrated circuits and systems
4	IC 301 - Control Engineering I
5	IC 305 - Signals and systems
6	IC 307 - Industrial Instrumentation I

16. Mechanical Engineering

1	ME201 Mechanics of Solids
2	ME205 Thermodynamics
3	ME210 Metallurgy & Materials Engineering
4	ME206 Fluid Machinery
5	ME220 Manufacturing Technology
6	ME301 Mechanics of Machinery

17. Mechanical (Automobile) Engineering

1	AU205 Automotive Chassis
2	ME214 Theory of Machines
3	AU212 Automobile Power Plant
4	AU301 Auto Transmission
5	AU303 Fuels and Combustion
6	AU305 Vehicle Maintenance

18. Mechanical (Production) Engineering

1	ME200- Fluid Mechanics & Machinery
2	ME216- Mechanical Technology
3	MP208- Metal Joining Technology
4	MP301- Metal Forming Technology
5	ME301- Mechanics of Machinery
6	MP305- Theory of metal cutting

19. Mechatronics

1	MR205 Science of Measurements
2	ME200 Fluid Mechanics & Machinery
3	MR202 Sensors And Actuators
4	MR 301 Linear Control Systems
5	MR 303Microprocessor and Microcontroller
6	MR 305 PLC and Data Acquisition Systems

20. Metallurgy

1	MT201 Metallurgical thermodynamics and kinetics
2	MT202 Physical metallurgy
3	MT208 Mechanical behaviour and testing
4	MT301 Metal joining technology
5	MT303 Iron and Steel Making
6	MT307 Foundry technology

21. Naval Architecture and Ship Building

1	SB205 Introduction to Naval Architecture & Ship Building
2	SB202 Resistance & Propulsion of Ships
3	SB204 Stability of Ships & Submarines
4	SB301 Ship Dynamics
5	SB303 Structural Design of Ships
6	SB307 Strength of Ships- I

22. Production Engineering

1	MP201 Machine Tool Technology
2	MP206 Foundry Technology
3	MP208 Metal Joining Technology
4	ME301 Mechanics of Machinery
5	MP301 Metal Forming Technology
6	MP204 Industrial Engineering

23. Safety and Fire Engineering

1	FS203 Principles of Safety Management
2	FS205 Safety in Construction Industry
3	FS208 Fire Engineering Fundamentals
4	FS301 Planning and Design of Fire Protection Systems
5	FS307 Chemical Technology and Mechanical Operations
6	FS309 Occupational Health and First Aid