

**DEPARTMENT OF TECHNOLOGY**  
**THIRD YEAR B.TECH**

Scheme of Teaching and Examination  
Semester – V (Mechanical Engineering)

**To be implemented from Academic Year 2018-19**

Sr. No	Subject	Teaching Scheme (Hours / Week)				Examination Scheme (Marks)					
		L	T	P	Credits	Theory			Practical		
						Scheme	Max. marks	Min. Passing	Scheme	Max. marks	Min. Passing
1.	Machine Design – I	03	01	-	04	CIE	50	20	-----	-----	-----
						SEE	50	20	-----	-----	-----
2.	Theory of Machine – II*	03	-	-	03	CIE	50	20	-----	-----	-----
						SEE	50	20	-----	-----	-----
3.	Energy Engineering	03	-	-	03	CIE	50	20	-----	-----	-----
						SEE	50	20	-----	-----	-----
4.	Manufacturing Engineering. – II**	03	-	-	03	CIE	50	20	-----	-----	-----
						SEE	50	20	-----	-----	-----
5.	Heat and Mass Transfer	03	-		03	CIE	50	20	-----	-----	-----
						SEE	50	20	-----	-----	-----
6.	Theory Of Machine – II Lab.	-	-	02	01	-----	-----	-----	-----	-----	-----
7.	CAD – Lab - I	-	-	02	01	-----	-----	-----	IOE	-	-
						--	-----	-----	EPE	50	20
8.	Workshop Practice - III	-	-	02	01	-----	-----	-----	IOE	50	20
9.	Heat and Mass Transfer	-	-	02	01	-----	-----	-----	IPE	50	20
						--	-----	-----	EPE	50	20
10.	Mini project and Seminar.	-	-	04	04	-----	-----	-----	IOE	50	20
11.	Manufacturing Engineering - II Lab.	-	-	02	01	-----	-----	-----	IPE	-	-
						--	-----	-----	EPE	50	20
<b>Total</b>		<b>15</b>	<b>01</b>	<b>14</b>	<b>25</b>	-----	<b>500</b>	-----	-----	<b>300</b>	-----
	Research Methodology (Audit Course)	01	-	02	--	-----	-----	-----	-----	----	---

Total Credits: 25

Total Contact Hours/Week: 30 hrs

**Note:**

#: Minimum 40% marks must be secured in SEE to pass that head.

- Tutorials and practical shall be conducted in batches with batch strength not exceeding 18 students.
- Unless not specifically mentioned, the duration of examination for paper shall be 3 hours.

\*- Theory of Machine – II: The duration of this paper shall be of 4 Hours and shall include drawing of Cam-Follower on separate drawing sheet.

\*\*- Manufacturing Engineering – II: The duration of this paper shall be of 4 Hours and shall include drawing of jigs and fixture problem on separate drawing sheet.

## SHIVAJI UNIVERSITY, KOLHAPUR – Structure for Third Year B. Tech. Mechanical Engineering

CIE – Continuous Internal Evaluation, SEE – Semester End Examination,  
IPE – Internal Practical Evaluation, EPE–External Practical Examination,  
IOE– Internal Oral Evaluation, EOE–External Oral Examination

Note: There will be an industrial tour in the first week of the semester VI. This tour will cover at least two visits to reputed **Mechanical Industries**. The report of the visits during the tour is required to be submitted by the students. This particular activity is for 50 marks as an Internal Oral Evaluation (IOE) which is included in Semester VI.



**DEPARTMENT OF TECHNOLOGY**  
**THIRD YEAR B.TECH**

Scheme of Teaching and Examination  
Semester – VI (Mechanical Engineering)

**To be implemented from Academic Year 2018-19**

Sr. No	Subject	Teaching Scheme (Hours / Week)				Examination Scheme (Marks)					
		L	T	P	Credits	Theory			Practical		
						Scheme	Max. marks	Min. Passing	Scheme	Max. marks	Min. Passing
1.	Machine Design – II	04	-	-	04	CIE	50	20	-----	-----	-----
						SEE	50	20	-----	-----	-----
2.	Control Engineering	04	-	-	04	CIE	50	20	-----	-----	-----
						SEE	50	20	-----	-----	-----
3.	Internal Combustion Engines	04	-	-	04	CIE	50	20	-----	-----	-----
						SEE	50	20	-----	-----	-----
4.	Metrology and Quality Control	04	-	-	04	CIE	50	20	-----	-----	-----
						SEE	50	20	-----	-----	-----
5.	Industrial Engineering and Management	03	-	-	03	CIE	50	20	-----	-----	-----
						SEE	50	20	-----	-----	-----
6.	Metrology and Quality Control	-	-	02	01	-----	-----	-----	IOE	50	10
7.	Internal Combustion Engines	-	-	02	01	-----	-----	-----	IPE	--	--
						-----	-----	-----	EPE	50	10
8.	CAM Lab.	-	-	02	01	-----	-----	-----	IOE	--	--
						-----	-----	-----	EPE	50	10
9.	Machine Design - II	-	-	02	01	-----	-----	-----	IOE	50	10
						-----	-----	-----	EOE	50	10
10.	Report and presentation of Industrial Tour	-	-	-	02	-----	-----	-----	IOE (seminar & oral)	50	10
AUDIT COURSE											
11.	Introduction to Foreign Language (Audit Course)	01	-	02	--	-----	-----	-----	----	---	---
	<b>Total</b>	<b>19</b>	<b>--</b>	<b>08</b>	<b>25</b>	-----	<b>500</b>	-----	-----	<b>300</b>	-----

Total Credits: 25

Total Contact Hours/Week: 30 hrs

**Note:**

#: Minimum 40% marks must be secured in SEE to pass that head.

• Tutorials and practical shall be conducted in batches with batch strength not exceeding 18 students.

• **Unless not specifically mentioned, the duration of examination for paper shall be 3 hours.**

CIE – Continuous Internal Evaluation, SEE – Semester End Examination,

IPE – Internal Practical Evaluation, EPE–External Practical Examination,

IOE– Internal Oral Evaluation, EOE–External Oral Examination

**Equivalence of Pre Revised and Revised Structure  
Third Year B. Tech. (Mechanical Engineering) Semester V**

The above detailed syllabus is a revised version of the Third Year B. Tech (Mechanical Engineering) Program being conducted by the Shivaji University at the Technology Department of the University. This syllabus is to be implemented from June 2018, (Academic year 2018-19). The prime feature of this revision is the transformation of the existing curriculum into the Outcome based curriculum as specified in NBA rules and regulations.

The Equivalence for the subjects/courses of Mechanical Engineering at Third Year B. Tech. Semester V pre-revised and Revised Program under the faculty of Engineering and Technology is as follows.

**Third Year B. Tech. Semester V (Mechanical Engineering)**

Sr. No	Third Year B. Tech. (Mechanical Engineering) Semester V Pre-revised syllabus	Third Year B. Tech. (Mechanical Engineering) Semester V Revised syllabus	Remark
1.	Credits = 25	Credits = 25	Slight modification in the content
2.	Machine Design – I	Machine Design – I	Slight modification in the content
3.	Theory of Machine – II	Theory of Machine – II	<ul style="list-style-type: none"> <li>Slight modification in the content</li> <li>Paper duration changed to 4 Hours.</li> </ul>
4.	Energy Engineering	Energy Engineering	Slight modification in the content
5.	Manufacturing Engineering – II	Manufacturing Engineering – II	<ul style="list-style-type: none"> <li>Slight modification in the content</li> <li>Paper duration changed to 4 Hours.</li> </ul>
6.	Heat and Mass Transfer	Heat and Mass Transfer	Slight modification in the content
7.	Theory Of Machine – II Lab.	Theory Of Machine – II Laboratory	Slight modification in the content
8.	CAD – Lab - I	CAD Laboratory	Change in name
9.	Workshop Practice - III	Workshop Practice - III	No change
10.	Heat and Mass Transfer	Heat and Mass Transfer	Slight modification in the content
11.	Seminar	Seminar	Slight modification in the content
12.	Manufacturing Engineering - II Lab.	Manufacturing Engineering - II Lab.	No Change
13.	Presentation and Communication Techniques (Audit Course)	Soft skill development	Shifted this audit course at S. Y. B. Tech. Semester IV
14.	Introduction to Foreign Language (Audit Course)	Introduction to Foreign Language (Audit Course)	Introduced new audit course at T. Y. B. Tech. Semester VI.

Audit course have not been assigned any credits. The students will be evaluated for these courses by the concerned course in charge. There will be grade conferred to the student. The grade will be based on conversion of marks obtained out of 50. (Obtaining passing grade is essential). Please refer to chart in the detail examination scheme. The chart shows the marks range and the respective grade.

**Equivalence of Pre Revised and Revised Structure  
Third Year B. Tech. (Mechanical Engineering) Semester VI**

The above detailed syllabus is a revised version of the Third Year B. Tech (Mechanical Engineering) Program being conducted by the Shivaji University at the Technology Department of the University. This syllabus is to be implemented from June 2018, (Academic year 2018-19). The prime feature of this revision is the transformation of the existing curriculum into the Outcome based curriculum as specified in NBA rules and regulations.

The Equivalence for the subjects/courses of Mechanical Engineering at Third Year B. Tech. Semester VI pre-revised and Revised Program under the faculty of Engineering and Technology is as follows.

**Third Year B. Tech. Semester V (Mechanical Engineering)**

<b>Sr. No</b>	<b>Third Year B. Tech. (Mechanical Engineering) Semester VI Pre-revised syllabus</b>	<b>Third Year B. Tech. (Mechanical Engineering) Semester VI Revised syllabus</b>	<b>Remark</b>
1.	Credits = 25	Credits = 25	No change in credits
2.	Machine Design – II	Machine Design – II	No Change
3.	Control Engineering	Control Engineering	No Change
4.	Internal Combustion Engines	Internal Combustion Engines	Slight modification in the content
5.	Metrology and Quality Control	Metrology and Quality Control	Slight modification in the content
6.	Industrial Engineering and Management	Industrial Engineering	<ul style="list-style-type: none"> <li>• Name of the subject changed</li> <li>• Slight modification in the content</li> </ul>
7.	Metrology and Quality Control	Metrology and Quality Control Laboratory	Slight modification in the content
8.	Internal Combustion Engines	Internal Combustion Engines Laboratory	No Change
9.	CAM Lab.	CAM Laboratory	Slight modification in the content
10.	Machine Design - II	Machine Design – II Laboratory	Slight modification in the content
11.	Research Methodology (Audit Course)		Slight modification in the content
12.	Mini Project and Report of Industrial Tour		No Change
13.			New Audit Course Added
14.			
15.			

Audit course have not been assigned any credits. The students will be evaluated for these courses by the concerned course in charge. There will be grade conferred to the student. The grade will be based on conversion of marks obtained out of 50. (Obtaining passing grade is

essential). Please refer to chart in the detail examination scheme. The chart shows the marks range and the respective grade.