Scheme of Teaching and Examination 2018 - 19

Outcome Based Education(OBE) and Choice Based Credit System (CBCS)

(Effective from the academic year 2018 - 19)

				p · · ·	Teach /Week	ing Hou	rs		Exan	nination	_	
SI. No		Course and Course Code	Course Title	Teaching Department	Theory	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Specific
1	BSC	18MAT31	Transform calculus, fourier series and Numerical techniques	Mathematics	2	2		03	40	60	100	3
2	PCC	18ME32	Mechanics of Materials		3	2		03	40	60	100	4
3	PCC	18ME33	Basic Thermodynamics		3	0		03	40	60	100	3
4	PCC	18ME34	Material Science		3	0		03	40	60	100	3
5	PCC	18ME35A or 18ME35B	Metal cutting and forming Metal Casting and Welding	7	3	0		03	40	60	100	3
6	PCC	18ME36A or	Computer Aided Machine Drawing/		1	4						
		18ME36B	Mechanical Measurements and Metrology	The state of the s	3	0	-	03	40	60	100	3
7	PCC	18MEL37A or	Material Testing lab							-		
		18MEL37B	Mechanical Measurements and Metrology lab		-	2	2	03	40	60	100	2
8	PCC	18MEL38A	Workshop and Machine Shop Practice (Consists of Fitting, and Machining)		-	2	2	03	40	60	100	2
		18MEL38B	Foundry, Forging and Welding lab									
		18KVK39/49	Vyavaharika Kannada (Kannada for communication)/									
9	HSMC	18KAK39/49	Aadalitha Kannada (Kannada for Administration)	HSMC	_	2		-	100	-	100	1
	Ξ [OR	,								
		18CPC39	Constitution of India, Professional		1			02	40	60		
			Ethics and Cyber Law		Exami	nation is	s by obje	ctive typ	e quest	tions		
				-	17	10		24	420	480		
				TOTAL	OR	OR	04	OR	OR	OR	900	24
					19	14	16	26	360	540		

Note: BSC: Basic Science, PCC: Professional Core, HSMC: Humanity and Social Science, NCMC: Non-credit mandatory course.

18KVK39 Vyavaharika Kannada (Kannada for communication) is for non-Kannada speaking, reading and writing students and 18KAK39 Aadalitha Kannada (Kannada for Administration) is for students who speak, read and write Kannada.

Course prescribed to lateral entry Diploma holders admitted to III semester of Engineering programs 18MATDIP31 Additional Mathematics - I Mathematics 02 01

b) These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree.

Courses prescribed to lateral entry B. Sc degree holders admitted to III semester of Engineering programs

Lateral entrant students from B.Sc. Stream, shall clear the non-credit courses Engineering Graphics and Elements of Civil Engineering and Mechanics of the First Year Engineering Programme. These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree.

wa's Institute of Engg. & Technology, Dept. Of Mechanical Engineering Alijar. MOODBIDRI - 574 225, D.K Alva's Institute of Engg. & Tochnology

Mijar, MOODBIDRI - 574 225

a) The mandatory non - credit courses Additional Mathematics I and II prescribed for III and IV semesters respectively, to the lateral entry Diploma holders admitted to III semester of BE/B. Tech programs, shall attend the classes during the respective semesters to complete all the formalities of the course and appear for the University examination. In case, any student fails to register for the said course/ fails to secure the minimum 40 % of the prescribed CIE marks, he/she shall be deemed to have secured F grade. In such a case, the students have to fulfill the requirements during subsequent semester/s to appear for SEE.

Scheme of Teaching and Examination 2018 – 19

Outcome Based Education(OBE) and Choice Based Credit System (CBCS)

IV S	SEMES	TER	(Effective from th	e academic y	ear 201	8 – 19)					
					Teachi /Week	ng Hou	rs		Exam	ination		T
SI. No		Course and Course Code	Course Title	Teaching	Theory	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
1	BSC	18MAT41	Mathematics	Mathematics	L 2	T 2	P	- 02		-		-
2	PCC	18ME42	Applied Thermodynamics	Mathematics	_	2	-	03	40	60	100	3
3	PCC	18ME43	Fluid Mechanics		3	2	-	03	40	60	100	4
4	PCC	18ME44	Kinematics of Machines		3	0	-	03	40	60	100	3
5	PCC	18ME45A	Metal cutting and forming		3	0	-	03	40	60	100	3
		18ME45B	Metal Casting and Welding		3	0	-	03	40	60	100	3
6	PCC	18ME46A or	Computer Aided Machine Drawing/			_		03				
		18ME46B	Mechanical Measurements and Metrology		3	0	-	03	40	60	100	3
7	PCC	18MEL47A or	Material Testing lab									-
		18MEL47B	Mechanical Measurements and Metrology lab		-	2	2	03	40	60	100	2
8	PCC	18MEL48A	Workshop and Machine Shop Practice (Consists of Fitting, and Machining)	*	_	2	2	03	40	60	100	2
_		18MEL48B	Foundry, Forging and Welding lab			- 1					100	-
		18KVK49/49	Vyavaharika Kannada (Kannada for communication)/	plate in								
9		18KAK49/49	Aadalitha Kannada (Kannada for Administration)	HSMC	7	2	-	-	100	-	100	1
	5		OR	110.110								
	HSMC	18CPH49	Constitution of India, Professional Ethics and Cyber Law		1	-]	-	02	40	60		
			zunes and Cyber Law		Examir	nation is	s by obje	ctive ty	pe quest	ions		
					17	10		24	420	480		

18KVK39 Vyavaharika Kannada (Kannada for communication) is for non-Kannada speaking, reading and writing students and 18KAK39 Aadalitha Kannada (Kannada for Administration) is for students who speak, read and write Kannada.

Course prescribed to lateral entry Diploma holders admitted to III semester of Engineering programs

10 NCMC 18MATDIP31 Additional Mathematics - 1 Mathematics 02 01 - 03 40 60 100 0

TOTAL

OR

OR

(a) The mandatory non – credit courses Additional Mathematics I and II prescribed for III and IV semesters respectively, to the lateral entry Diploma holders admitted to III semester of BE/B. Tech programs, shall attend the classes during the respective semesters to complete all the formalities of the course and appear for the University examination. In case, any student fails to register for the said course/ fails to secure the minimum 40 % of the prescribed CIE marks, he/she shall be deemed to have secured F grade. In such a case, the student have to fulfill the requirements during subsequent semester/s to appear for SEE.

(b) These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree.

Courses prescribed to lateral entry B. Sc degree holders admitted to III semester of Engineering programs

Lateral entrant students from B.Sc. Stream, shall clear the non-credit courses Engineering Graphics and Elements of Civil Engineering and Mechanics of the First Year Engineering Programme. These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree.

Dept. Of Mechanical Engineering Alva's Institute of Engg. & Technology Mijar, MOODBIDRI - 574 225

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Scheme of Teaching and Examination 2018 - 19

Outcome Based Education(OBE) and Choice Based Credit System (CBCS)

(Effective from the academic year 2018 - 19) V SEMESTER

						Meek			Exan	instica		T
SL No	1	urse and irse code	Course Title	Teaching Department	Theory	Tutterial	Practical/ Drawing	Persion is bours	TE Marks	EE Marks	otal Marks	Credit
1	PCC	18ME51		-	I.	T	P	_		, s	-	
2	PCC	IRMES2	Management and Economics		2	2	_	03	40	60	100	3
1	PCC	18ME53	Design of Machine Elements I		1	2	-	03	40	60	100	+
4	PCC	18ME 54	Dynamics of Machines	-	1		-	03	40	60	100	1
-	PCC	+	Turbo Machines		1	-	_	03	40	60		4
-		18ME55	Fluid Power Engineering	-	1	-	-	03	40		100	1
6	PCC	LEME 56	Operations Management		,			-	7.71	60	100	3
1	PCC	16MEL57	Fluid Mechanics Machines lab	-	3	44	200	0.3	40	60	100	3
8	PCC	18MEL 58	Energy Conversion Lab		-	2	2	03	40	60	100	2
		1		75.75	-	2	2	03	40	60	100	2
9	RSMC	18CTV59	E	Civil/ Environmental								
	112390	1801739	Environmental Studies	[Paper setting: Civil Engineering Board]	1	~	-	02	40	60	100	1
				TOTAL	1.6	10	84	26	360	540	900	25

Note: PCC Professional Core, HSMC Hamanity and Social Science.

AICTE activity Points: In case students full to earn the prescribed activity Points, Eighth somester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card.

Dopt. Of Michanical Engineering Alva's institute of Engg. & Yachnology Mijar, MOODBIDRI - 574 225

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Scheme of Teaching and Examination 2018 - 19

Outcome Based Education(OBE) and Choice Based Credit System (CBCS)

(Effective from the academic year 2018 - 19)

			Fig. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Teachi	ng Hour	s /Week		Exam	ination		
SL No		rse and se code	Course Title	Teaching Department	Theory Lecture	Tutorial	Practical/ Drawing	Ouration in hours	CIE Marks	SEE Marks	otal Marks	Credits
1	PCC	18ME61	Finite Flores M. d.		L	T	P			٠,	-	
2	PCC	18ME62	Finite Element Methods		3	2	-	03	40	60	100	4
3	PCC	18ME63	Design of Machine Elements II		3	2	-	03	40	60	100	4
4	PEC		Heat Transfer		3	2		03	40	60	100	4
5	OEC	18ME64X	Professional Elective -1		3		-	03	40	60	100	3
_		18ME65X	Open Elective -A		3	_		03	40	60	100	3
6	PCC	18MEL66	Computer Aided Modelling and Analysis Lab		_	2	2	03	40	60	100	2
7	PCC	18MEL67	Heat Transfer Lab			2	_	00	40			_
8	MP	18MEMP68	Mini-project		-	2	2	03	40	60	100	2
9	Internship	-	Internship	To be carri	ed out du	ring the	vacation/s	o3 s of VI a	40 and VII	60 semeste	100 ers and /o	or VII
				TOTAL	15	10	06	24	320	480	800	24

Note: PCC: Professional core, PEC: Professional Elective, OE: Open Elective, MP: Mini-project.

	P	rofessional Elective -1	
Course code under 18XX64X	The state of the s	Course code under 18XX64X	Course Title
18ME641	Non-Traditional Machining	18ME644	Vibrations and N. J. D. J.
	Refrigeration and Air conditioning	18ME645	Vibrations and Noise Engineering
18ME643	Theory of Elasticity	18ME646	Composite Materials Technology
		Open Flective A	Entrepreneurship Development

Students can select any one of the open electives offered by other Departments expect those that are offered by the parent Department (Please refer to the list of open electives under 18XX65X).

Selection of an open elective shall not be allowed if,

- The candidate has studied the same course during the previous semesters of the programme.
- The syllabus content of open elective is similar to that of the Departmental core courses or professional electives.
- A similar course, under any category, is prescribed in the higher semesters of the programme.

Registration to electives shall be documented under the guidance of Programme Coordinator/ Advisor/Mentor.

Mini-project work:

Based on the ability/abilities of the student/s and recommendations of the mentor, a single discipline or a multidisciplinary Mini-project can be assigned to an individual student or to a group having not more than 4 students.

CIE procedure for Mini-project:

(i) Single discipline: The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the Guide.

The CIE marks awarded for the Mini-project work, shall be based on the evaluation of project report, project presentation skill and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.

(ii) Interdisciplinary: Continuous Internal Evaluation shall be group wise at the college level with the participation of all the guides of the college. The CIE marks awarded for the Mini-project, shall be based on the evaluation of project report, project presentation skill and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates. SEE for Mini-project:

(i) Single discipline: Contribution to the Mini-project and the performance of each group member shall be assessed individually in the semester end examination (SEE) conducted at the department.

(ii) Interdisciplinary: Contribution to the Mini-project and the performance of each group member shall be assessed individually in semester end examination (SEE) conducted separately at the departments to which the student/s belongs to.

Internship: All the students admitted to III year of BE/B. Tech shall have to undergo mandatory internship of 4 weeks during the vacation of VI and VII semesters and /or VII and VIII semesters. A University examination shall be conducted during VIII semester and the prescribed credit shall be included in VIII semester. Internship shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not take-up/complete the internship shall be declared fail and shall have to complete during subsequent University examination after satisfying the internship requirements.

> Dept. Of Mechanical Engineering Alva's Institute of Engg. & Yachnolor Mijar, MOODBIDRI - 574 225

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Outcome Based Education(OBE) and Choice Based Credit System (CBCS)

(Effective from the academic year 2018 - 19)

					Teachi	ng Hour	s /Week		Exam	ination		
SI. No		CC 18ME73 Computer Aided Design an Manufacturing EC 18ME73X Professional Elective - 2 EC 18ME74X Professional Elective - 3 EC 18ME75X Open Elective - B		Teaching Department	Theory	Tutorial	Practical/ Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
1	PCC	18ME71	Control Engineeri		L	T	P			٠,	-	
2	PCC	TOWNETT	Control Engineering		3			03	40	60	100	3
			Manufacturing		3			03	40	60	100	3
3	PEC	18ME73X	Professional Elective - 2		3			02	40			_
4	PEC	18ME74X	Professional Elective - 3					03	40	60	100	3
5	OEC	18ME75X	Open Elective - B		3			03	40	60	100	3
6	PCC		Computer Integrated		3			03	40	60	100	3
	D.C.O.	18MEL76	Manufacturing Lab	100		2	2	03	40	60	100	2
	PCC	18MEL77	Design Lab			2	_	0.2	- 10		3.5.5	
7	Project	18MEP78	Project Work Phase - 1			2	2	03	40	60	100	2
8	Into			100			2		100		100	1
0	Internship	-	Internship	(If not com	pleted during the	ring the	vacation on of VII	of VI an and VII	d VII se	emesters	, it shall	be
				TOTAL	15	04	06	18	340	360	700	20

C	Profes	sional Elective - 2	
Course code under 18XX73X	Course Title	Course code	Course Title
18ME731	Design for Manufacture	18ME734	m + 10 m
18ME732	Automation and Robotics	18ME735	Total Quality Management
18ME733	Computational Fluid Dynamics	18ME/33	Operations Research
	•	ional Electives - 3	
Course code under 18XX74X	Course Title	Course code	Course Title
18ME741	Additive Manufacturing	18ME744	The second secon
18ME742	Emerging Sustainable Building Cooling		Mechatronics
	Technologies Technologies	18ME745	Project Management
18ME743	Theory of Plasticity		

Open Elective -B Students can select any one of the open electives offered by other Departments expect those that are offered by the parent Department (Please refer

Selection of an open elective shall not be allowed if,

- The candidate has studied the same course during the previous semesters of the programme.
- The syllabus content of open elective is similar to that of the Departmental core courses or professional electives. A similar course, under any category, is prescribed in the higher semesters of the programme.

Registration to electives shall be documented under the guidance of Programme Coordinator/ Advisor/Mentor.

Project work:

VILSEMESTED

Based on the ability/abilities of the student/s and recommendations of the mentor, a single discipline or a multidisciplinary project can be assigned to an individual student or to a group having not more than 4 students. In extraordinary cases, like the funded projects requiring students from different disciplines, the project student strength can be 5 or6.

CIE procedure for Project Work Phase - 1:

(i) Single discipline: The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the Guide.

The CIE marks awarded for the project work phase -1, shall be based on the evaluation of the project work phase -1 Report (covering Literature Survey, Problem identification, Objectives and Methodology), project presentation skill and question and answer session in the ratio 50:25:25. The marks awarded for the Project report shall be the same for all the batch mates. (ii) Interdisciplinary: Continuous Internal Evaluation shall be group wise at the college level with the participation of all guides of the college.

Participation of external guide/s, if any, is desirable.

The CIE marks awarded for the project work phase -1, shall be based on the evaluation of project work phase -1 Report (covering Literature Survey, Problem identification, Objectives and Methodology), project presentation skill and question and answer session in the ratio 50:25:25. The marks

awarded for the project report shall be the same for all the batch mates. Internship: All the students admitted to III year of BE/B. Tech shall have to undergo mandatory internship of 4 weeks during the vacation of VI and VII semesters and /or VII and VIII semesters. A University examination shall be conducted during VIII semester and the prescribed credit shall

be included in VIII semester. Internship shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not take-up/complete the internship shall be declared fail and shall have to complete the internship shall be declared fail and shall have to complete the internship shall be declared fail and shall have to complete the internship shall be declared fail and shall have to complete the internship shall be declared fail and shall have to complete the internship shall be declared fail and shall have to complete the internship shall be declared fail and shall have to complete the internship shall be declared fail and shall have to complete the internship shall be declared fail and shall have to complete the internship shall be declared fail and shall have to complete the internship shall be declared fail and shall have to complete the internship shall be declared fail and shall have to complete the internship shall be declared fail and shall have to complete the internship shall be declared fail and shall have to complete the internship shall be declared fail and shall have to complete the internship shall be declared fail and shall have to complete the internship shall be declared fail and shall have to complete the internship shall be declared fail and shall have to complete the internship shall be declared fail and shall be declared fa

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Dept. Of Mechanical Engineering Alva's Institute of Engg. & Technology Mijar, MOODBIDRI - 574 225

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Scheme of Teaching and Examination 2018 - 19

Outcome Based Education(OBE) and Choice Based Credit System (CBCS)

(Effective from the academic year 2018 - 19)

					Teac	hing Ho	nrs /Week		Exam	ination	-	
SL No		rse code	Course Title	Teaching Department	Thesny	Tutorial	Practical Drawing	Duration in hours	CIE Marks	SEE Marks	Total Marks	Credits
1	PCC	18ME81	Energy Engineering		L.	T	P			-		
2	PEC	18ME82X	Professional Elective - 4		3	918	**	03	40	60	100	3
3	Project	18MEP83	Professional Elective - 4		3	**	***	03	40	60	100	3
4	Seminar	-	Project Work Phase - 2		**	***	2	0.3	40	60	100	N
_	Seminar	18MES84	Technical Seminar		**	**	2	03	100		100	1
5	Internship	18XXI85	Internship	Complete of VI and VII and	d VII sei	nesters		03	40	60	100	3
				TOTAL	06	**	04	15	260	240	500	18

Note: PCC: Professional Core, PEC: Professional Elective.

Course code	Professi	onal Electives - 4	
ınder 18XX82X	Course Title	Course code under 18XX82X	Course Title
8ME821	CNC Machine Tools		
8ME822	Tribology	18ME824	Automobile Engineering
8ME823	6.	18ME825	Tool Design
COLLO	Non-Destructive Testing and Evaluation	18ME826	Fracture Mechanics

Project Work

VIII CEMPOTED

CIE procedure for Project Work Phase - 2:

(i) Single discipline: The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty

The CIE marks awarded for the project work phase -2, shall be based on the evaluation of project work phase -2 Report, project presentation skill and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.

(ii) Interdisciplinary: Continuous Internal Evaluation shall be group wise at the college level with the participation of all guides of the college.

The CIE marks awarded for the project work phase -2, shall be based on the evaluation of project work phase -2 Report, project presentation skill and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.

(i) Single discipline: Contribution to the project and the performance of each group member shall be assessed individually in semester end

(a) Interdisciplinary: Contribution to the project and the performance of each group member shall be assessed individually in semester end examination (SEE) conducted separately at the departments to which the student/s belongs to.

Internship: Those, who have not pursued /completed the internship, shall be declared as fail and have to complete during subsequent University examination after satisfying the internship requirements.

AICTE activity Points: In case students fail to earn the prescribed activity Points, Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of degree only after the release of the Eighth semester Grade Card. Activity points of the students who have earned the prescribed AICTE activity Points shall be sent the University along with the CIE marks of 8th semester. In case of students who have not satisfied the AICTE activity Points at the end of eighth semester, the column under activity Points shall be marked NSAP (Not Satisfied Activity Points).

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Dept. Of Mechanical Engineering Alva's institute of Engg. & Tachnology Mijar, MOODBIDRI - 574 225

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III SEMESTER

				Tea	ching Hours	/Week	The state of the s	Exam	ination		Credits
SI. No	Subject Code	Title	Teaching Department	Lecture	Tutorial	Practical	Duration (Hours)	SEE Marks	CIE Marks	Total Marks	
1	17MAT31	Engineering Mathematics – III	Maths	04			03	60	40	100	4
2	17ME32	Materials Science	ME	04			03	60	40	100	4
	17ME33	Basic Thermodynamics	ME	03	02		03	60	40	100	4
	17ME34	Mechanics of Materials	ME	03	02		03	60	40	100	4
;	17ME35A/	Metal Casting and Welding	ME	04			03	60	40	100	
	17ME35B	Machine Tools and Operations	ME	04	189, 16		03			100	4
5	17ME36 A/	Computer Aided Machine Drawing	ME	01		4		60	40		
	17ME36B	Mechanical Measurements and Metrology	ME	03			03	7		100	3
	17MEL37A/	Materials Testing Lab/	ME	, A.	1			60	40		
	17MEL37B	Mechanical Measurements and Metrology Lab	ME	1		2	03			100	2
1	17MEL38A/	Foundry and Forging Lab	ME	1		2		60	40		
	17MEL38B	Machine Shop/	ME	1		2	03	market de		100	2
	17KL/CPH39 /49	Kannada/Constitution of India, Professional Ethics and Human Rights	Humanities	1			01	30	20	50	1
		TOTAL		22/24	04	08/04		510	340	850	28
			RINGIPAL		4				Day	t. Of Mechan) D.

1 1/2 Institute of Engg. 8. Tella AGERIAL SCIENCE (Aijar, MOODBIDRI - 574 225, D.K

ering Alva's Institute of Engg. & Tochnology Mijar, MOODBIDRI - 5/4 225

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IV SEMESTER

i. \				V ₀ Nov.	Teaching	Teach	ing Hours	/Week		Exami	nation		Credi
No	Subj	ect Code		Title	Department	Lectu re	Tutorial	Practical	Duration (Hours)	SEE Marks	CIE Marks	Total Marks	
1		MAT41	Engi	neering Mathematics – III	Maths	04	1-77		03	60	40	100	04
2	17N	ΛE42	Kine	ematics of Machinery	ME	03	02		03	60	40	100	04
3		ME43	Ap	plied Thermodynamics	ME	03	02	- A	03	60	40	100	04
4	17	7ME44	Flu	uid mechanics	ME	03	02		03	60	40	100	04
5	s \	7ME45A/	-	letal Casting and Welding	ME	04			03	60	40	100	04
		17ME45B		Machine Tools and Operations	ME	4	+		1			100	04
	6	17ME46 A/		Computer Aided Machine Drawing	ME	01		4		60	40		
		17ME46B	1	Mechanical Measurements and Metrology	ME	03			03			100	03
	_	17MEL47A	/	Materials Testing Lab/	ME					60	40		
	7	17MEL47B	3	Mechanical Measurements and Metrology Lab	ME	1		2	03			100	02
	8	17MEL48/	Α/	Foundry and Forging Lab	ME	1	e pull		-	60	40		
		17MEL48	В	Machine Shop/	ME	1		2	03	1 1 2 1		100	02
2	9	17KL/CPH 49	H39/	Kannada/Constitution of Indi Professional Ethics and Huma Rights		1			01	30	20	50	1
				TOTAL		21/	23 06	08/04	1 10 10 10 10 10 10 10 10 10 10 10 10 10	510	340	850	28/

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Dept. Of Mechanical Engineering
Alva's Institute of Engg. & Technology
Mijar, MOCDBIDRI - 574 225

V SEMESTER

1	Subject	Title	Tea	ching Hours	/Week		P 1			
1	Code	- 1110	Lecture	Tutorial	Practical		Examina			Credits
+	17ME51	M			- ractical	Duration (Hours)	SEE Marks	CIE Marks	Total	
		Management and Engineering Economics	3	2	0	02			Marks	
	17ME52	Dynamics of Machinery		140 - 0		03	60	40	100	4
1		,	3	2	0	03	(0			
1	17ME53	Turbo Machines				03	60	40	100	4
1	171 (5.4		3	2	0	03	60	40	100	
	17ME54	Design of Machine Elements - I	3	-	, vil			40	100	4
5	17ME55X		3	2	0	03	60	40	100	4
	1 TIMESSA	Professional Elective-I	3	0	0		11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			7
6	17ME56X	Open Elective-I		1 "	0	03	60	40	100	3
	LILLION	Open Elective-I	3	0	-					
7	17MEL57	Fluid Machania Colonia		0	0	03	60	40	100	3
	1	Fluid Mechanics & Machinery Lab	1	0	2	0.0	3 2 2 3 3 3			-
8	17MEL58	Energy Lab			2	03	60	40	100	2
		Energy Lab	1	0	2	03	(0			
		TOTAL	10		_	"	60	40	100	2
		IOIAL	20	08	04		480	220		
		onal Elective-I					400	320	60	40

Totessional	Elective-I	Open Electiv	va I
17ME551	Refrigeration and Air-conditioning		
17ME552	Theory of Elasticity	17ME561	Optimization Techniques
		17ME562	Energy and Environment
17ME553	Human Resource Management	5000 A 1 4 5 - 7 (C C C C C C C C C C C C C C C C C C	Automation and Robotics
17ME554	Non Traditional Machining	The state of the s	
	-	17ME364	Project Management

1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

2. Professional Elective: Elective relevant to chosen specialization/ branch

3. Open Elective: Electives from other technical and/or emerging subject areas.

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Dept. Of Mechanical Engineering Alva's institute of Engg. & Technology Mijar, MOODBIDRI - 574 225

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VI SEMESTER

.	Subject		Teac	hing Hours	/Week		Fran:			
1	Code	Title	Lecture	Tutorial	Practical	Duration	Exami SEE Marks	CIE Marks	Total	Credits
	17ME61	Finite Element Analysis	3			(Hours)		Marks	Marks	
		Computer integrated Manufacturing	3	2	0	03	60	40	100	4
+		Heat Transfer	4	0	0	03	60	40	100	4
1	17ME63	ricat Fransier	3	2	0	03				,
	17ME64	Design of Machine Elements -II		1		03	60	40	100	4
5	170 m cm	Professional Elective-II	3	2	0	03	60	40	100	4
_	17ME65X	Professional Elective-II	3	0	0	03	60	40		
6	17ME66X	Open Elective-II	,				00	40	100	3
7	170.000.00		3	0	0	03	60	40	100	3
1	17MEL67	Heat Transfer Lab	1	0	2	03	60	40	100	
8	17MEL68	Modeling and Analysis Lab(FEA)	1	0				40	100	2
		TOTAL	·	U	2	03	60	40	100	2
_		TOTAL	21	6	04		480	320	60	40

Open Elective-II
1.53
17ME661 Energy Auditing 17ME662 Industrial Safety
- Salety
Maintenance Engineering
17ME664 Total Quality Management
_

- 1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study. 2. Professional Elective: Elective relevant to chosen specialization/ branch
- 3. Open Elective: Electives from other technical and/or emerging subject areas.

itials tastitute of Engg. & Technology, सिद्धार MODDBIDRI - 574 225, D.K.

Dept. Of Mechanical Engineering

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2015-2016

VII SEMESTER

B.E. Mechanical Engineering

	Subject			ning Hours	/Week		Examina	ation		Credits
1	Code	Title Energy Engineering	Lecture	Tutorial	Practical	Duration (Hours)	SEE Marks	CIE Marks	Total Marks	Geuis
2	17ME72	Fluid Power Systems	3	2	0	03	60	40	100	4
3	17ME73	Control Engineering	4	0	0	03	60	40	100	4
4	17ME74X	Professional Elective - III	3	2	0	03	60	40	100	4
5	17ME75X	Professional Elective-IV	3	0	0	03	60	40	100	3
6	17MEL76	Design Lab	3	0	0	03	60	40	100	3
7	17MEL77	CIM Lab	1	0	2	03	60	40	100	2
8	17MEP78	Project Phase – I	1	0	2	03	60	40	100	2
		TOTAL	18		-	-	60	40	100	2
=			18	4	04		480	320	60	24

Professional	Fl- All Sur			400
	Elective-III	Professiona	l Elective-IV	
17ME741	Design of Thermal Equipment's	17ME751	Automotive Electronics	
17ME742	Tribology	17ME752		
17ME743	Financial Management	17ME753	Fracture Mechanics	
17ME744	Design for Manufacturing		Human Resource Manageme	nt
17ME745	Smart Materials & MEMS	17ME754	Mechatronics	
	Situate Materials & MEMS	17ME755	Advanced Vibrations	

1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme that said discipline of

2. Professional Elective: Elective relevant to chosen specialization/ branch

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI **CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2015-2016**

VIII SEMESTER

B.E. Mechanical Engineering

	Subject		Teach	ning Hours	/Week		Examin	ation		Credits
0	Code	Title	Lecture	Tutorial	Practical	Duration (Hours)	SEE Marks	CIE Marks	Total Marks	
1	17ME81	Operations Research	3	2	0	03				
2	17ME82	Additive Manufacturing					60	40	100	4
3	17ME83X	Professional Elective - V	4	0	0	03	60	40	100	4
			3	0	0	03	60	40	100	3
4	17ME84	Internship / Professional Practice	Inc	dustry Orier	nted	03	60	40	60	40
5	17ME85	Project Phase – II	-	6		03	60			
6	17MES86	Seminar				- 03	60	40	200	6
-			- Class	4	-	-	60	40	100	1
		TOTAL	10	12	-		480	320	700	20

Professional	Elective-V
15ME831	Cryogenics
15ME832	Experimental Stress Analysis
15ME833	Theory of Plasticity
15ME834	Green Manufacturing
15ME835	Product life cycle management

1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of

2. Professional Elective: Elective relevant to chosen specialization/ branch

3. Internship / Professional Practice: To be carried out between 6th & 7th semester vacation or 7th & 8th semester vacation.

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Dept. Of Mechanical Engineering Alva's Institute of Engg. & Tachnology Mijar, MOODBIDRI - 574 225

Internship/ Professional Practice

Course	Code	Credits	L-T-P	Assessment			
nternship/ Professional			2-1-1	SEE	CIA	Exam Duratio	
Practice Practice	17ME84	2	Industry Oriented	50	50	3 Hrs	

Project Work, Phase II

Course	Code	Credits	L-T-P	Assessment			
Project Work, Phase II				SEE	CIA	Exam Duration	
rioject work, rhase ii	17MEP85	6	0-6-0	100	100	3 Hrs	

Seminar

Course	Code	Credits	L-T-P	Assessment		
				SEE	CIA	Exam Duration
Seminar	17MES86	1	0-4-0	100	-	

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III SEMESTER

SI.	Subject		Tea	ching Hours	/Week		Exam	ination		Credits
No		Title	Lecture	Tutorial	Practical	Duration (Hours)	Theory/ Practical Marks	I.A. Marks	Total Marks	
1	15MAT31	Engineering Mathematics – III	04			03	80	20	100	4
2	15ME32	Materials Science	04			03	80	20	100	4
3	15ME33	Basic Thermodynamics	03	02		03	80	20	100	4
4	15ME34	Mechanics of Materials	03	02		03	80	20	100	4
5	15ME35A/ 15ME35B	Metal Casting and Welding Machine Tools and Operations	04			03	80	20	100	4
6	15ME36 A/	Computer Aided Machine Drawing	02		4			4		
	15ME36B	Mechanical Measurements and Metrology	04			03	80	20	100	3
	15MEL37A/	Materials Testing Lab/						4		
7	15MEL37B	Mechanical Measurements and Metrology Lab	1		2	03	80	20	100	2
3	15MEL38A/	Foundry and Forging Lab	1		2	03	80	20	100	+
	15MEL38B	Machine Shop/			_	03	80	20	100	2
		TOTAL	22/24	04	08/04		640	160	800	27

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Mijar, MOODEIDRI - 574 223

	Subject				ng Hours	/Week		Exami	nation		Credits
	Code		Title	lectur e	Tutorial	Practical	Duration (Hours)	Theory/ Practical Marks	I.A. Marks	Total Marks	
	15MAT4	1 1	Engineering Mathematics – III	04					-		
1	15ME42						03	80	20	100	04
2			Kinematics of Machinery	03	02		03	80	20	100	04
3	15ME4	3	Applied Thermodynamics	03	02						
4	15ME	14	Fluid mechanics		02		03	80	20	100	04
				03	02	4	03	80	20	100	04
5	15ME	45A/	Metal Casting and Welding	1				D AUNE CO			-
	15MI	E45B	Machine Tools and Operations	04			03	80	20	100	04
	6	E46 A/	The state of the state of a wing	02		4					731
	15N	15ME46B	Mechanical Measurements and Metrolog	y 04		7	03	80	20	100	03
	15N	AEL47A	Materials Testing Lab/								1
	7 /	MEL47		1		2	03	80	20	100	02
	8 15	MEL48	A Foundry and Forging Lab						-11-12-12		
	15	MEL48	Machine Shop/	1		2	03	80	20	100	0
			TOTAL	19/	21 (06 08/	04	640	1,6	6 800	2

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Dept. Of Mechanical Engineering Alva's Institute of Engg. & Technology Mijar, MOODBIDRI - 574 225

1 15ME51 Management and Engineering Economics 3 2 0 03 80 20 100 4 2 15ME52 Dynamics of Machinery 3 2 0 03 80 20 100 4 3 15ME53 Turbo Machines 3 2 0 03 80 20 100 4 4 15ME54 Design of Machine Elements - 1 3 2 0 03 80 20 100 4 5 15ME55X Professional Elective-1 3 0 0 03 80 20 100 3 6 15ME56X Open Elective-1 3 0 0 03 80 20 100 3 7 15MEL57 Fluid Mechanics & Machinery Lab 1 0 2 03 80 20 100 2 8 15MEL58 Energy Lab 1 0 2 03 80 20 100 2	l. 0	Subject Code	Title	Teac	ching Hours	/Week					
1 15ME51 Management and Engineering Economics 3 2 0 03 80 20 100 4 3 15ME53 Turbo Machines 3 2 0 03 80 20 100 4 4 15ME54 Design of Machine Elements - 1 3 2 0 03 80 20 100 4 5 15ME55X Professional Elective-I 3 0 0 03 80 20 100 3 6 15ME56X Open Elective-I 3 0 0 03 80 20 100 3 7 15MEL57 Fluid Mechanics & Machinery Lab 1 0 2 03 80 20 100 2 8 15MEL58 Energy Lab 1 0 2 03 80 20 100 2 7 TOTAL TOTAL		Code		Lecture	Tutorial			Examination			C 114
15ME52 Dynamics of Machinery 3 2 0 03 80 20 100 4	1	15ME51	Management and Engineering Economic	2				Practical			Credits
3 15ME53 Turbo Machines 3 2 0 03 80 20 100 4 4 15ME54 Design of Machine Elements - I 3 2 0 03 80 20 100 4 5 15ME55X Professional Elective-I 3 0 0 03 80 20 100 4 6 15ME56X Open Elective-I 3 0 0 03 80 20 100 3 7 15MEL57 Fluid Mechanics & Machinery Lab 1 0 2 03 80 20 100 2 8 15MEL58 Energy Lab 1 0 2 03 80 20 100 2	2	15ME52	Dynamics of Machinery		2	0	03				
4 15ME54 Design of Machine Elements - I 3 2 0 03 80 20 100 4 5 15ME55X Professional Elective-I 3 2 0 03 80 20 100 4 6 15ME56X Open Elective-I 3 0 0 03 80 20 100 3 7 15MEL57 Fluid Mechanics & Machinery Lab 1 0 2 03 80 20 100 2 8 15MEL58 Energy Lab 1 0 2 03 80 20 100 2	3	15ME53		3	2	0	03	80		Cross of the	4
Solid of Machine Elements - 1 3 2 0 03 80 20 100 4	4	15ME54		3	2	0	03	14-10-14	11	100	4
15ME55X Professional Elective-I 3 0 0 03 80 20 100 4	-			3	2	0		80	20	100	4
6 15ME56X Open Elective-I 3 0 0 03 80 20 100 3 7 15MEL57 Fluid Mechanics & Machinery Lab 1 0 2 03 80 20 100 3 8 15MEL58 Energy Lab 1 0 2 03 80 20 100 2 TOTAL	3	15ME55X	Professional Elective-I	-		0	03	80	20	100	4
7 15MEL57 Fluid Mechanics & Machinery Lab 1 0 0 03 80 20 100 3 8 15MEL58 Energy Lab 1 0 2 03 80 20 100 2 TOTAL	6	15ME56X	Open Elective-I	3	0	0	03	80	20	100	
8 15MEL58 Energy Lab 1 0 2 03 80 20 100 2 TOTAL 1 0 2 03 80 20 100 2	7	15MEL57		3	0	0	03	80		F1500 1111	3
6 15MEL58 Energy Lab 2 03 80 20 100 2 TOTAL	9			1	0	2	e ballen e		20	100	3
TOTAL 2 03 80 20 100 2	0	15MEL58	Energy Lab	1		41.	03	80	20	100	2
			TOTAL	21	U	2	03	80	20	100	2

Professional	Elective-I		04	640
	Refrigeration and Air-conditioning	Open Electiv	/e-l	
15ME552	Theory of Elasticity	15ME561	Optimization Techniques	
1	Human Resource Management		Energy and Environmen	
	Non Traditional Machining		Automation and Robotic	
	1 viacining		Project Managemet	

1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

3. OpenElective: Electives from other technical and/or emerging subject areas.

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Dept. Of Mechanical Engineering Alva's Institute of Engg. 8. Technology Mijar, MOODBIDRI - 574 225

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VI	SEMES	TFR
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0	Subject Code	Title	Teach	ning Hours	/Week					
	Tuly	Title	Lecture	Tutorial	Practical	_	Examin	ation		Credits
1		Finite Element Analysis	3			Duration (Hours)	Theory/ Practical Marks	I.A. Marks	Total Marks	orean.
2	15ME62	Computer integrated Manufacturing	3	2	0	03	80	20	100	4
3	15ME63	Heat Transfer	4	0	0	03	80	20		4
	131/1603		3	2	0	02	Page 183	20	100	4
4	15ME64	Design of Machine Elements -II	2		U	03	80	20	100	4
5	15ME65X	Professional Elective-II	3	2	0	03	80	20	100	4
			3	0	0	03	80	20		
6	15ME66X	Open Elective-II	. 3	0	0	Art of the	- AE 1	20	100	3
7	15MEL67	Heat Transfer Lab			0	03	. 80	20	100	3
8	15MEL68	The second secon	1	0	2	03	80	20	100	2
-	13MEL68	and Analysis Lab(FEA)	1	0	2	03	80	20		fart.
		TOTAL	21	6	04			20	100	2
T	Professional E				04	1	640	160	800	26

1 - 10 - 218	Open Electi	ve-II
Computational Fluid Dynamics		Energy Auditing
Mechanics of Composite Materials		
		Industrial Safety
		Maintenance Engineering
The state of the s	15ME664	Total Quality Management
	Elective-II Computational Fluid Dynamics Mechanics of Composite Materials Metal Forming Tool Design Automobile Engineering	Computational Fluid Dynamics 15ME661 Mechanics of Composite Materials 15ME662 Metal Forming 15ME663 Tool Design 15ME664

1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

3. OpenElective: Electives from other technical and/or emerging subject areas.

H.O.D.

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI **CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2015-2016**

VII SEMESTER

B.E. Mechanical Engineering

	Subject		Teach	ing Hours	Week		Examin	ation	W-1	Credits
0	Code	Title	Lecture	Tutorial	Practical	Duration (Hours)	Theory/ Practical Marks	I.A. Marks	Total Marks	
1		Energy Engineering	3	2	0	03	80	20	100	4
2	15ME72	Fluid Power Systems	4	0	0	03	80	20	100	4
3	15ME73	Control Engineering	3	. 2	0	03	80	20	100	4
4	15ME74X	Professional Elective - III	3	0	0	03	80	20	100	3
5			3	0	0	03	80	20	100	3
Le		0) 1	0	2	03	80	20	100	2
L	, ISIVILLY,	A STATE OF THE STA	1	0	2	03	80	20	100	2
	8 15MEP7	8 Project Phase – I	-	-	-	-	-	100	100	2
	146	TOTAL	18	4	04		560	240	800	24

Professional I	Elective-III	Professional	Elective-IV
15ME741	Design of Thermal Equipments	15ME751	Automotive Electronics
15ME742	Tribology	15ME752	Fracture Mechanics
15ME743	Financial Management	15ME753	Mechatronics
15ME744	Design for Manufacturing	15ME754	Advanced Vibrations
15ME745	Smart Materials & MEMS		

1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study. HO.D.

2. Professional Elective: Elective relevant to chosen specialization/ branch

Dept. Of Mechanical Engineering Alva's Institute of Engg. & Technology Mijar, MOODBIDRI - 574 225

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CHOICE BASED CREDIT SYSTEM (CBCS) SCHEME OF TEACHING AND EXAMINATION 2015-2016

VIII SEMESTER

B.E. Mechanical Engineering

	Subject		Teaching Hours /Week			1111111111	Credits			
0	Code	Title	Lecture	Tutorial	Practical	Duration (Hours)	Theory/ Practical Marks	I.A. Marks	Total Marks	
1	15ME81	Operations Research	3							
2	15ME82	Addr M. C	3	2	0	03	80	20	100	4
-	- Diane Se	Additive Manufacturing	4	0	0	03	80	20		
3	15ME83X	Professional Elective - V				0.5	80	20	100	4
			3	0	0	03	80	20	100	3
4	15ME84	Internship / Professional Practice		1	1				100	3
5	151 4500		in in	dustry Orie	ented	03	50	50	100	2
2	15ME85	Project Phase – II		6	1				194700-400	
6	15MES86	Seminar		"		03	100	100	200	6
Ľ		Schiller	-	4		-		100	100	
	_	TOTAL						100	100	1
		· · · ·	10	12	-		390	310	700	20

Professional	Elective-V	
15ME831	Cryogenics	
15ME832	Experimental Stress Analysis	
15ME833	Theory of Plasticity	
15ME834	Green Manufacturing	
15ME835	Product life cycle management	11116

1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

2. Professional Elective: Elective relevant to chosen specialization/ branch

3. Internship / Professional Practice: To be carried out between 6th & 7th semester vacation or 7th & 8th semester vacation.

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Dept. Of Mechanical Engineering Alva's Institute of Engg. & Technology Mijar, MOODBIDRI - 574 225

VISVESWARAIAH TECHNOLOGICAL UNIVERSITY, BELGAUM SCHEME OF TEACHING AND EXAMINATION III SEMESTER B.E. MECHANICAL

S.No.	Sub-Code	Title	Teaching Dept.		g Hours / eek		Exami	nation	
		Care Service Control		Theory	Pract/ Drg.	Duration	Max. I.A. Marks	Max. Theory /Pr.	Total marks
1	10MAT31	Engg. Maths – III	Mathematics	04	-	03	25	100	125
2	10ME32A/10ME32B	Material Sc. & Metallurgy / Mechanical Measurements & Metrolgy	Mechanical	04		03	25	100	125
3	10ME33	Basic Thermodynamics	Mechanical	04		03	25	100	125
4	10ME34	Mechanics of Materials	Mechanical	04		03	25	100	125
5	10ME35	Manufacturing Process I	Mechanical	04		03	25	100	125
6	10ME36A/10ME36B	Computer Aided Machine Drawing / Fluid Mechanics	Mechanical	01 04	03	03	25	100	125
7	10MEL37A/10MEL37B	Metallography & Material Testing Lab / Mech. Measurements & Metrology Lab	Mechanical	-	03	03	25	50	75
8	10MEL38A/10MEL38B	Foundry & Forging lab / Machine Shop	Mechanical	-	03	03	25	50	75
	III SEMES	STER B.E. MECHANICAL		21/24	9	24	200	700	960

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VISVESWARAIAH TECHNOLOGICAL UNIVERSITY, BELGAUM SCHEME OF TEACHING AND EXAMINATION

IV SEMESTER B.E. MECHANICAL

S.No.	Sub-Code	Title	Teaching Dept.		g Hours / eek		Examin	nation	
				Theory	Pract/ Drg.	Duration	Max. I.A. Marks	Max. Theory /Pr.	Total marks
1	10MAT41	Engg. Maths – IV	Mathematics	04		03	25	100	125
2	10ME42A/10ME42B	Material Sc. & Metallurgy / Mechanical Measurements & Metrolgy	Mechanical	04	-	03	25	100	125
3	10ME43	Applied Thermodynamics	Mechanical	04	-	03	25	100	125
4	10ME44	Kinematics of Machines	Mechanical	04	-	03	25	100	125
5	10ME45	Manufacturing Process II	Mechanical	04	, 	03	25	100	125
6	10ME46A/10ME46B	Computer Aided Machine Drawing / Fluid Mechanics	Mechanical	01 04	03	03	25	100	125
7	10MEL47A/10MEL47B	Metallography & Material Testing Lab / Mech. Measurements & Metrology Lab	Mechanical	<u>L</u>	03	03	25	50	75
8	10MEL48A/10MEL48B	Foundry & Forging lab / Machine Shop	Mechanical	-	03	03	25	50	75
				21	09	24	200	700	900

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Mya's Institute of Engg. & Technology, Major, MOODBIDRI - 574 225, D.K Dept. Of Mechanical Engineering
Alva's Institute of Engg. & Technology
Mijar, WOODBIDRI - 574 225

VISVESWARAIAH TECHNOLOGICAL UNIVERSITY, BELGAUM SCHEME OF TEACHING AND EXAMINATION

V SEMESTER B.E. MECHANICAL

No.	Sub-Code	Title	Teaching H	lours/week		Examination		Total
			Theory	Pract. J Drg.	Duration	Max. I.A. Marks	Max. Theory /Pr.	Marks
1	10ME51	Management and Entrepreneurship	04	-4	03	25	100	125
2	10ME52	Design of Machine Eleme	ents I 04	-	03	25	100	125
3	10ME5	Energy Engineering	04	-	03	25	100	125
4	10ME	Dynamics of Machines	04	-	03	25	100	125
	5 10ME	Manufacturing Process	III 04		03	25	100	125
	6 10ME	56 Turbo Machines	04		03	25	100	125
	7 10ME	L57 Fluid Mechanics & Ma	chines	03	03	25	50	75
	8 10MI		gg. Lab	03	03	25	50	75
			24	06	24	200	700	900

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VISVESWARAIAH TECHNOLOGICAL UNIVERSITY, BELGAUM

SCHEME OF TEACHING AND EXAMINATION

VI SEMESTER B.E. MECHANICAL

No.	Sub-Code	Title	Teaching Hours/week		Examination			Total Marks
	lune of		Theory	Pract/ Drg.	Duration	Max. I.A. Marks	Max. Theory /Pr.	
1	10ME61	Computer Integrated Manufacturing	04	-	03	25	100	125
2	10ME62	Design of Machine Elements II	04		03	- 25	100	125
3	10ME63	Heat & Mass Transfer	04		03	25	100	125
4	10ME64	Finite Element Methods	04		03	25	100	125
5	10ME65	Mechatronics & \square P	04		03	25	100	125
(6 10ME66X	Elective 'A'	04		03	25	100	125
	7 10MEL67	Heat & Mass Transfer Lab		03	03	25	50	75
	8 10MEL6	8 CAMA Lab		03	03	25	50	75
			24	06	24	200	700	90

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E	ective 'A'
10ME661 Theory of Elasticity	10ME662 Mechanics of Composite Materials
HOME663 Refrigeration & Air Conditioning	10ME664 Design of Heat Exchangers
10ME665 Non Traditional Machining	10ME666 Knowledge Management
10ME667 Project Management	10ME668 Statistic Quality Control

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SCHEME OF TEACHING AND EXAMINATION VII SEMESTER B.E. MECHANICAL

No.	Sub-Code	Title	Teaching Hours/week		Examination			Total
			Theory	Pract/ Drg.	Duration	Max. I.A. Marks	Max. Theory /Pr.	Marks
1	10ME71	Engineering Economics	04	45 <u>-</u>	03	25	100	125
2	10ME72	Mechanical Vibrations	04	1	03	25	100	125
3	10ME73	Hydraulies and Pneumatics	04	-	03	25	100	125
-	4 10ME74	Operations Research	04		03	25	100	125
)	5 10ME75	Elective B	04		03	25	100	125
1	6 10ME76	X Elective C	04	-	03	25	100	125
	7 10MEL	77 Design Lab		03	03	25	50	75
	8 10MEL	78 CIM and Automation Lab	-	03	03	25	50	75
	9 10MEI	Project Phase I	-	-	-	50	-	50
	a ²		24	06	24	250	700	95

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Electiv	ve 'B'	Elective 'C'		
10ME751 Mechanism Design	10ME752 Theory of Plasticity	10ME761 Experimental Stress Analysis	10ME762 Tool Design	
10ME753 Engineering Design	10ME754 Non Conventional Energy Sources	10ME763 Cryogenics	10ME764 Smart Materials	
10ME755 Gas Dynamics	10ME756 Management Information System	10ME765 Agile Manufacturing	10ME766 Robotics	
10ME757 Automation in Manufacturing	10ME758 Total Quality Management	10ME767 Finance management	10ME768 Micro & Smart System Technology	

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SCHEME OF TEACHING AND EXAMINATION

VIII SEMESTER B.E. MECHANICAL

S.No.	Sub-Code	Title	Teaching Hours/week		Examination			Total Marks
			Theory	Pract/ Drg.	Duration	Max. I.A. Marks	Max. Theory /Pr.	
1	10ME81	Operations Management	04	# 1 <u>- 1</u>	03	25	100	125
2	10ME82	Control Engineering	04	*	03	25	100	125
3	10ME83X	Elective D	04	/	03	25	100	125
4	10ME84X	Elective E	04		03	25	100	125
5	10ME85L	Project Work		06	03	100	100	200
6	10ME86L	Seminar	-	03	1	50		50
				09	15	250	500	750
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Elective 'D'	Elective 'E'			
10MEX31 Tribology	10ME832 Fracture Mechanics	10MES41 Machine Tool Design	Industrial Engineering & Ergonomics	
10MEX33 Power Plant Engineering	10MES34 Nano Technology	10ME343 Bio Mass Energy Systems	10MES44 Automotive Engineering	
1664EE35 Orginational Behaviour and Professional Communication	10MEX36 Computer Graphus	10MES45 Dumbuse Management System	10MES46 Artificial Intulligence	
1696EX37 Rapid Printryging	Tachnology	10ME547 Design of Experiments	Durigo for Manufacture & Assembly	

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