PEOPLE'S UNIVERSITY, BHOPAL

Faculty of Engineering (Choice Based Credit System)

Course Details and Scheme of Examination

(w.e.f. from Academic Session 2021-22 onwards)

PEOPLE'S UNIVERSITY

Programme: Bachelor of Technology **Branch: Mechanical Engineering**

SECOND YEAR (III SEMESTER)

Course Code	Name of the Courses	Course Mode (B/C/E)	Theory			Practical			Total Marks	Teaching Contact Hours			Total Credits	Component (F/V)
			End Sem	MST/Attendance Assignment	Internal Exam	End Sem	Lab Performance/ Attendance/Quiz	Internal Exam		L	T	P		
CBME-301	Engineering Materials	C	70	30	-	-	-	-	100	3	1	0	04	F
CBME-302	Applied Thermodynamics	C	70	30	-	-	-	-	100	3	1	0	04	F
CBME-303	Machine Drawing and CAD	C	70	30	-	35	15	-	150	3	1	2	05	F
CBME-304	Mechanics of Materials	C	70	30	-	35	15	-	150	3	1	2	05	F
CBME-305	Machine Tools and Operations	E	35	15	-	35	15	-	100	1	0	2	02	V
CBME -306	Mechanical Engineering Software Lab-I	C	-	-	-	-	-	50	50	0	0	2	01	F
CBTE -307	*NCC-III	E	35	15	-	35	15	-	100	1	0	12	07	V
CBTE -308	Introduction to Internet of Things	E	70	30	-	35	15	-	150	2	0	2	03	V
CBTE -309	Quantitative Aptitude & Logical Reasoning	E	-	-	50	-	-	-	50	1	0	0	01	V
CBTE-310	NSS-II/NSO-II	E	-	-	-	-	-	50	50	0	0	2	01	V
CBTE-311	Music Vocal- II/ Music Instruments-II	E	-	-	-	-	-	50	50	0	0	2	01	V
CBTE-312	Social Engineering	B	-	-	50	-	-	-	50	1	0	0	00	F
	Total		420	180	100	175	75	150	1100	18	04	26	34	

Note: Students must earn 26 credits to complete this semester. (*For NCC-III 05 credits will be allotted after successful completion of camp.)

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Programme: Bachelor of Technology　　　**Branch: Mechanical Engineering**

SECOND YEAR (IV SEMESTER)

Course Code	Name of the Courses	Course Mode (B/C/E)	Theory			Practical			Total Marks	L	T	P	Total Credits	Component (F/V)
			End Sem	MST/Attendance Assignment	Internal Exam	End Sem	Lab Performance/ Attendance/Quiz	Internal Exam						
BTE-401	Entrepreneurship and IPR	C	70	30	-	-	-	-	100	3	0	0	03	F
CBME-402	Modern Manufacturing Techniques	C	70	30	-	35	15	-	150	3	0	2	04	F
CBME-403	Mechanics of Mechanisms and Machines	C	70	30	-	35	15	-	150	3	1	2	05	F
CBME-404	Fluid Mechanics and Hydraulics Machinery	C	70	30	-	35	15	-	150	3	1	2	05	F
CBME-405	Thermal Engineering	C	35	15	-	35	15	-	100	2	0	2	03	F
CBME-406	Mechanical Engineering Software Lab-II	E	-	-	-	-	-	50	50	0	0	2	01	V
CBTE- 407	NCC -IV	E	35	15	-	35	15	-	100	2	0	2	03	V
CBTE - 408	Research Methodology	E	-	-	50	-	-	-	50	0	0	2	01	V
CBTE - 409	Environmental Science	B	-	-	100	-	-	-	100	1	0	0	00	F
CBTE - 410	Massive Open Online Courses (MOOCs)-I	E	-	-	-	-	-	50	50	0	0	2	01	V
CBTE - 411	Sociology	E	-	-	50	-	-	-	50	1	0	0	01	V
CBTE- 412	Fine Arts-II	E	-	-	-	-	-	50	50	0	0	2	01	V
Total			350	150	200	175	75	150	1100	18	02	18	28	
NCC V- Camp/ Industrial Training	E/C		To be completed after the fourth semester. Its evaluation/credit to be added in FIFTH SEMESTER											

Note: Students must earn 24 credits to complete this semester.

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Programme: Bachelor of Technology **Branch: Mechanical Engineering**

THIRD YEAR (V SEMESTER)

Course Code	Name of the Courses	Course Mode (B/C/E)	Theory End Sem	Theory MST/Attendance Assignment	Theory Internal Exam	Practical End Sem	Practical Lab Performance/ Attendance/Quiz	Practical Internal Exam	Total Marks	L	T	P	Total Credits	Component (F/V)
Refer Table -I	Open Elective (Refer Table-I)	E	70	30	-	-	-	-	100	3	0	0	03	F
CBME-502	Power Plant Engineering	C	70	30	-	-	-	-	100	3	0	0	03	F
CBME-503	Production Planning and Control	C	70	30	-	-	-	-	100	3	1	0	04	F
CBME-504	Heat and Mass Transfer	C	70	30	-	35	15	-	150	3	1	2	05	F
CBME-505	Dynamics of Machines	C	70	30	-	35	15	-	150	3	1	2	05	F
CBME-506	Computer-Aided Design and Manufacturing	E	70	30	-	35	15	-	150	3	0	2	04	V
CBTE-507	*NCC-V	E	35	15	-	35	15	-	100	1	0	12	07	V
CBTE-508	Accounting and Finance Management	E	35	15	-	-	-	-	50	2	0	0	02	V
CBME-509	Mechanical Measurements and Metrology Lab	E	-	-	-	-	-	50	50	0	0	2	01	V
CBTE-510	Industrial Training	C	-	-	-	100	-	-	100	0	0	2	01	F
CBTE-511	Indian Constitution	B	-	-	50	-	-	-	50	1	0	0	00	F
Total			490	210	50	240	60	50	1100	22	03	22	35	

Note: Students must earn 28 credits to complete this semester. (For *NCC-V 05 credit will be allotted after successful completion of camp.)

Table – I

Course Code	Name of Open Elective Course	Course Code	Name of Open Elective Course
CBTE-5101	Gender Equality	CBTE-5103	Ethical Hacking and Cyber Security
CBTE-5102	Human Health & Nutrition	CBTE-5104	Industrial Safety and Environment

(One hour Lecture (L) refers 1 credit, One-hour Tutorial (T) refers 1 credit, One hour Practical (P) refers 0.5 credits.) B- Basic Course, C- Core Course, E, Elective Course, F-Fixed, V-Variable, L-Lecture, P- Practical, T- Tutorials, MST: Mid Semester Test (at least twice per Semester). For examination promotion criteria existing B. Tech. ordinance is applicable.

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Programme: Bachelor of Technology　　　　**Branch: Mechanical Engineering**

THIRD YEAR (VI SEMESTER)

Course Code	Name of the Courses	Course Mode (B/C/E)	Theory — End Sem	Theory — MST/Attendance Assignment	Theory — Internal Exam	Practical — End Sem	Practical — Lab Performance/ Attendance/Quiz	Practical — Internal Exam	Total Marks	L	T	P	Total Credits	Component (F/V)
Refer Table -II	Department Elective -I	E	70	30	-	-	-	-	100	3	0	0	03	F
CBME-602	Machine Component Design	C	70	30	-	-	-	-	100	3	1	0	04	F
CBME-603	Refrigeration and Air Conditioning	C	70	30	-	35	15	-	150	3	1	2	05	F
CBME-604	Industrial Engineering and Operations Research	C	70	30	-	35	15	-	150	3	1	2	05	F
CBME-605	Control Systems Engineering	E	70	30	-	35	15	-	150	2	0	2	03	V
CBTE-606	Human Resource Management	E	35	15	-	-	-	-	50	2	0	0	02	V
CBTE-607	NCC - VI	E	35	15	-	35	15	-	100	2	0	2	03	V
CBTE-608	Company and Compensation law	E	35	15	-	-	-	-	50	2	0	0	02	V
CBME-609	Mechanical Engineering Software Lab-III	E	-	-	-	-	-	50	50	0	0	2	01	V
CBTE-610	Universal Human Ethics	B	-	50	50	-	-	-	100	2	1	0	03	F
Total			**455**	**245**	**50**	**140**	**60**	**50**	**1000**	**22**	**04**	**10**	**31**	

Note: Students must earn 24 credits to complete this semester.

Table –II

Course Code	Name of Department Elective Course	Course Code	Name of Department Elective Course
CBME-6101	Artificial Intelligence and Expert Systems	CBME-6103	Automobile Engineering
CBME-6102	Hybrid Vehicles	CBME-6104	High-Performance Materials

(One hour Lecture (L) refers 1 credit, One-hour Tutorial (T) refers 1 credit, One-hour Practical (P) refers 0.5 credits.) B- Basic Course, C- Core Course, E, Elective Course, C- Compulsory, V- Variable, L-Lecture, P- Practical, T- Tutorials, MST- Mid Semester Test (at least twice per Semester). *For examination and promotion criteria existing B. Tech. ordinance is applicable.*
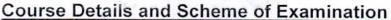
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FOURTH YEAR (VII SEMESTER)

Course Code	Name of the Courses	Course Mode (B/C/E)	Theory End Sem	Theory MST/Attendance Assignment	Theory Internal Exam	Practical End Sem	Practical Lab Performance/ Attendance/Quiz	Practical Internal Exam	Total Marks	L	T	P	Total Credits	Component (F/V)
Refer Table -III	Department Elective -II	E	70	30	-	-	-	-	100	3	0	0	03	F
Refer Table -III	Department Elective -III	E	70	30	-	-	-	-	100	3	0	0	03	F
CBME-703	Energy Sources and Audit	C	70	30	-	-	-	-	100	3	0	0	03	F
CBME-704	Quality control and Reliability	C	70	30	-	35	15	-	150	3	0	2	04	F
CBME-705	Robotics and Industrial Automation	C	70	30	-	35	15	-	150	3	1	2	05	F
CBME-706	Machine Design	C	70	30	-	-	-	-	100	3	1	0	04	F
CBME-707	Innovative Project Lab	C	-	-	-	-	-	50	50	0	0	2	01	F
CBTE-708	Introduction to MATLAB	E	-	-	-	-	-	50	50	0	0	2	01	V
CBTE-709	Psychology	E	-	-	50	-	-	-	50	1	0	0	01	V
CBTE-710	Massive Open Online Courses (MOOCs) - II	E	-	-	-	-	-	50	50	0	0	2	01	V
CBTE-711	Professional Ethics and Proficiency	B	-	-	-	35	15	-	50	0	0	2	01	F
CBTE-712	GD/Seminar	E	-	-	-	-	-	50	50	0	0	2	01	V
Total			420	180	50	105	45	200	1000	19	02	14	28	

Note: Students must earn 26 credits to complete this semester.

Table –III

Course Code	Name of Department Elective Course - II	Course Code	Name of Department Elective Course-III
CBME-7101	Maintenance Engineering	CBME-7201	Mechatronics
CBME-7102	Combustion and Emissions in IC Engines	CBME-7202	Non-Traditional Machining Techniques
CBME-7103	Finite Element Methods	CBME-7203	Additive Manufacturing Technology
CBME-7104	Neural Network and Fuzzy Systems	CBME-7204	Tool Design Engineering

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Course Code	Name of the Course	Course Mode (B/C/E)	Theory			Practical			Total Marks	L	T	P	Total Credits	Component (F/V)
			End Sem	MST/Attendance Assignment	Internal Exam	End Sem	Lab Performance/ Attendance/Quiz	Internal Exam						
CBME-801	Project Internship and Viva-Voce	C	-	-	-	300	200	-	500	0	0	20	10	F
Total			-	-	-	300	200	-	500	0	0	20	10	

FOURTH YEAR (VIII SEMESTER)

Note: Students must earn 10 credits to complete this semester.

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