Cummins College of Engineering for Women, Nagpur

B.Tech Second Semester (All Branches)

COURSE	MATHEMATICS – II		
COURSE CODE	BES2-1T	COURSE ABBREVATION	M-II
SEMESTER	SECOND	BRANCH	B. Tech (All Branch)
COURSE CREDITS	04	EXAMINATION SCHEME	Theory University (TU)

COURSE OUTCOMES

After the completion of the Course, Students will be able to....

	Course Outcomes	Blooms Level	PO
BES1-2.1	*Analyze real world scenarios to recognize when integrals are appropriate, formulate. problems about the scenarios, creatively model these scenarios (using technology, if appropriate) to solve the problems using multiple approaches, judge if the results are reasonable, and then interpret and clearly communicate the results.*	Level 1, 4	PO-1,2
BES1-2.2	*Define and understand the geometry of vector differential operators and line and surface integrals.*	Level 1, 2,	PO-1,2
BES1-2.3	*Explain and apply principles of study design and data collection.*	Level 1, 3	PO-1,2
BES1-2.4	*Develop an ability to identify, formulate and/or solve real world problems.*	Level 2	PO-1,2
BES1-2.5	*Understand the impact of scientific and engineering solutions in a global and societal context.*	Level 1,2	PO-1,2

Cummins College of Engineering for Women, Nagpur

Program:- B. Tech Second Semester (All Branches)

COURSE	Advanced Engineering Materials		
COURSE CODE	BES2-2T	COURSE ABBREVATION	AEM
SEMESTER	SECOND	BRANCH	All Branches
COURSE CREDITS	3	EXAMINATION SCHEME	Theory University (TU)

COURSE OUTCOMES

After the completion of Course, Students will be able to.....

Course Outcomes		Blooms Level	PO
BES2-2T.1	*Learn the concept of formation of energy bands and to classify solids on its basis.*	1,2,3	1,2,12
BES2-2T.2	*Identify and explain different types of diodes, transistors and its applications*	1,2,3	1,2,12
BES2-2T.3	*Learn the concepts of magnetism and superconductivity, classify and analyze various types o fmagnetic and superconducting materials.*	1,2,3,4	1,2,12
BES2-2T.4	*Learn and explain quantum transitions and apply it to working of lasers.*	2,3	1,2,12
BES2-2T.5	*Learn the concept of nano materials and compare its properties with those of bulk materials.*	1,2,3,4	1,2,12

Cummins College of Engineering for Women, Nagpur

Program:- B. Tech Second Semester (All branches)

COURSE	Applied Chemistry		
COURSE CODE	BES2-3T	COURSE ABBREVATION	AC
SEMESTER	Second	BRANCH	B. Tech (All branches)
COURSE CREDITS	04	EXAMINATION SCHEME	Theory University (TU)

COURSE OUTCOMES

After the completion of Course, Students will be able to.....

Course Outcomes		Blooms Level	PO
BES2-3T.1	To *understand* the periodic properties and *analyze* the Microscopic Chemistry in terms of atomic and molecular orbital.	Level 2,4	PO 1, 2
BES2-3T.2	To *understand* the bulk properties and processes using thermodynamic processes & the causes of corrosion, its consequences and methods to minimize corrosion.	Level 1, 2	PO 1
BES2-3T.3	To *distinguish* the ranges of the electromagnetic spectrum used for exciting different molecular energy levels in various spectroscopic techniques.	Level 3,4	PO 1,2
BES2-3T.4	*Apply* the principles of green chemistry in designing alternative reaction methodologies to minimize hazards and environmental degradation.	Level 2,3	PO 2, 3,7
BES2-3T.5	*Apply* the techniques of water treatment in industrial purposes.	Level 2,3	PO 2, 3

Cummins College of Engineering for Women, Nagpur

Program:- B. Tech in Second Semester (All Branches)

COURSE	Computational Skills		
COURSE CODE	**BSE2-4T**	**COURSE ABBREVATION**	CS
SEMESTER	SECOND	**BRANCH**	All Branches
COURSE CREDITS	02	**EXAMINATION SCHEME**	Theory University (TU)

COURSE OUTCOMES

After the completion of Course, Students will be able to.....

	Course Outcomes	Blooms Level	PO
BSE2-4T.1	*Understand the components of a Computer System and to remember different hardware and software used in Computer System.*	Level 1, 2	PO 1,2,12
BSE2-4T.2	*Design an algorithm and sketch the flowchart for any problem.*	Level 2,6	PO 1,2,12
BSE2-4T.3	*Apply the knowledge of fundaments of C language to Develop a program.*	Level 3,6	PO 1,2,12
BSE2-4T.4	*List and explain different searching and sorting techniques for a given set of data.*	Level 1,2	PO 1,2,12
BSE2-4T.5	*Analyze how exactly the data is stored, organized in memory and extend this knowledge to perform operations on the stored data.*	Level 2,4	PO 1,2,12

Cummins College of Engineering for Women, Nagpur

Program: - B. Tech Second Semester

COURSE	BASIC ELECTRICAL ENGINEERING		
COURSE CODE	BSE2-6T	COURSE ABBREVATION	BEE
SEMESTER	SECOND	BRANCH	All Branches
COURSE CREDITS	02	EXAMINATION SCHEME	Theory University (TU)

COURSE OUTCOMES

After the completion of the Course, Students will be able to....

	Course Outcomes	Blooms Level	PO
BSE2-6T.1	*Understand* the basics of electric circuits with reference to Ohms law, Superposition theorem, Types of sources	Level 2	PO-1,2
BSE2-6T.2	*Understand* the Magnetic circuit	Level 2	PO-1,2
BSE2-6T.3	*Understand* the AC circuit	Level 2	PO-1,2
BSE2-6T.4	*Understand* the Single phase Transformer, SC-OC test on transformer with no load and on load performance	Level 2	PO-1,2

Cummins College of Engineering for Women, Nagpur

Program: - B. Tech Second Semester

COURSE	ENGINEERING MECHANICS		
COURSE CODE	BES2-7T	COURSE ABBREVATION	EM
SEMESTER	SECOND	BRANCH	All Branches
COURSE CREDITS	03	EXAMINATION SCHEME	Theory University (TU)

COURSE OUTCOMES

After the completion of Course, Students will be able to.....

	Course Outcomes	Blooms Level	PO
BES2-7T.1	*Find the effect of force and momentum on the body.*	Level 1, 2	PO 1,2
BES2-7T.2	*Analyze the effect of system of forces on a given body with the concept of equilibrium and Free body diagram*	Level 1, 2, 3	PO 1, 2
BES2-7T.3	*Calculate centroid/C.G. and moments of inertia.*	Level 1, 2,3	PO 1,2
BES2-7T.4	*Solve the problem of connected bodies by virtual work principle*	Level 1,2,3	PO 1,2
BES2-7T.5	*Solve the problem of connected bodies by work, energy and D Alembert's principle connected bodies.*	Level 1, 2,3	PO 1,2
BES2-7T.6	*Solve the problem of connected bodies by Impact and Impulse.*	Level 1, 2,3	PO 1,2

Cummins College of Engineering for Women, Nagpur

Program:- B. Tech Second Semester (All Branches)

COURSE	INDIAN CULTURE & CONSTITUTION		
COURSE CODE	BSE2-8T	COURSE ABBREVATION	ICC
SEMESTER	SECOND	BRANCH	All Branches.
COURSE CREDITS	00	EXAMINATION SCHEME	AUDIT COURSE

COURSE OUTCOMES

After the completion of Course, Students will be able to.....

	Course Outcomes	Blooms Level	PO
BSE2-8T.1	*Student will become aware of Indian Culture and Civilization and their role in development of society*	*PO6*	*BSE2-8T.1*
BSE2-8T.2	*Students will understand Industrial work culture*	*PO6,8*	*BSE2-8T.2*
BSE2-8T.3	*Students will be sensitized towards professional ethics*	*PO6,7,8*	*BSE2-8T.3*
BSE2-8T.4	*Students will understand Indian Constitution and Governance of the country*	*PO6*	*BSE2-8T.4*
BSE2-8T.5	*Students will be able to understand the structure and system of work organization*	*PO6,9*	*BSE2-8T.5*

Cummins College of Engineering for Women, Nagpur

Program:- B. Tech in Second Semester (All Branches)

COURSE	Workshop Practices		
COURSE CODE	BSE2-5P	COURSE ABBREVATION	WS
SEMESTER	Second	BRANCH	All Branches
COURSE CREDITS	02	EXAMINATION SCHEME	Theory University (TU)

COURSE OUTCOMES

After the completion of Course, Students will be able to.....

Course Outcomes		Blooms Level	PO
BSE2-5P.1	*Read and **Interpret** job drawing and plan operation.*	Level 1	PO 1
BSE2-5P.2	***Identify** and select proper material, tools ,machines and proper operational parameters.*	Level 3	PO 1, 2
BSE2-5P.3	***Set** tools, work piece and machines for desired operations.*	Level 2	PO 1, 4
BSE2-5P.4	***Complete** job of carpentry, Fitting, Welding and Smithy as per job drawing in allotted time.*	Level 2	PO 2
BSE2-5P.5	***Inspect** the job for confirm desired dimensions and shape*	Level 6	PO 2

Cummins College of Engineering for Women, Nagpur

Program:- B. Tech Second Semester (All Branches)

COURSE	Advanced Engineering Materials		
COURSE CODE	BES2-2P	COURSE ABBREVATION	AEM
SEMESTER	SECOND	BRANCH	All Branches
COURSE CREDITS	1	EXAMINATION SCHEME	Practical University (TU)

COURSE OUTCOMES

After the completion of Course, Students will be able to.....

Course Outcomes -Practical		Blooms Level	PO
BES2-2P.1	**Construct** electronic circuit using various components.	2	2,12
BES2-2P.2	**Develop** the experimental skills and make use of new instruments in Engineering studies.	3	12

Cummins College of Engineering for Women, Nagpur

Program:- B. Tech Second Semester (All branches)

COURSE	Applied Chemistry		
COURSE CODE	BES2-3P	COURSE ABBREVATION	AC
SEMESTER	Second	BRANCH	B. Tech (All branches)
COURSE CREDITS	1.5	EXAMINATION SCHEME	Practical University (PU)

COURSE OUTCOMES

After the completion of Course, Students will be able to.....

Course Outcomes		Blooms Level	PO
BES2-3P.1	*Measure molecular/system properties like, concentrations, surface tension, conductance of solutions etc.*	Level 1, 2	PO 1
BES2-3P.2	*Estimate the soluble impurities present in the given water sample.*	Level 3,4	PO 4
BES2-3P.3	*Handle the different instruments used in chemistry laboratory.*	Level 2,3	PO 5

Cummins College of Engineering for Women, Nagpur

Program:- B. Tech in Second Semester

COURSE	Computational Skills		
COURSE CODE	BSE2-4P	COURSE ABBREVATION	CS
SEMESTER	SECOND	BRANCH	All branches
COURSE CREDITS	02	EXAMINATION SCHEME	Practical University (PU)

COURSE OUTCOMES

After the completion of Course, Students will be able to.....

	Course Outcomes	Blooms Level	PO
BSE2-4P.1	*Understand the components of a Computer System and to **remember** different hardware and software used in Computer System.*	Level 1, 2	PO 1,2,12
BSE2-4P.2	*Demonstrate how to **compile** and run a program in C Language and **Distinguish** the compile time and run time errors and **modify** the code.*	Level 1,2,3,4	PO 1,2,3,4,12
BSE2-4P.3	*Experiment with various concepts of programming like decision control, looping, strings, arrays, structure and **inspect** the execution of same.*	Level 3, 4	PO 2,3,4,12
BSE2-4P.4	*Apply the knowledge of fundaments of C language to **Develop** a program using pointers.*	Level 3,6	PO 4,12
BSE2-4P.5	*Compare the performances of different sorting techniques and different data structures*	Level 4	PO 4,12