

**G Narayanamma Institute of Technology and Science (for women),  
ECE Department**

**CO Direct Attainment for 2019-23 Batch**

Subject Code for NBA	Subject Name	Internal Examination						External Examination		
		CO1	CO2	CO3	CO4	CO5	CO6	Overall Attainment (X)	Attainment (Y)	Direct Attainment (0.30 * X + 0.70 * Y)
<b>1<sup>st</sup> Year</b>										
C101	Physics	1	2	3	1	3	0	2	2	2
C102	Linear Algebra and Multivariable Calculus	3	1	1	1	0	3	2	1	1.3
C103	Programming for Problem Solving	2	3	1	2	1	3	2	1	1.3
C104	Engineering Graphics	1	2	0	1	3	3	1	2	1.7
C105	Engineering Workshop	2	2	2	2	2	2	2	2	2
C106	Physics Lab	1	1	3	0	0	1	2	2	2
C107	Programming Lab	3	1	1	1	0	3	2	2	2
C109	Chemistry	1	3	3	3	1	3	2	2	2
C110	Numerical Techniques and Transform Calculus	3	1	1	1	0	3	2	2	2
C111	English	1	3	1	3	0	0	2	2	2
C112	Basic Electrical Engineering	3	0	0	0	3	1	2	2	2
C113	Chemistry Lab	1	3	3	3	3	2	2	2	2
C114	English Professional and Communication Skills Lab	1	1	3	0	0	1	2	2	2
C115	Basic Electrical Engineering Lab	1	1	3	0	0	1	2	2	2
C116	Computational Mathematics Lab	2	2	2	2	2	2	2	2	2
<b>2<sup>nd</sup> Year</b>										
C201	Mathematical Analysis	2	3	3	1	3	3	3	3	3
C202	Network Theory	1	3	0	2	0	2	1	0	0.3
C203	Electronic Devices and Circuits	3	2	0	0	0	2	0	3	2.1
C204	Signals and Systems	2	1	0	0	2	2	1	1	1
C205	Digital System Design	3	1	1	1	0	3	2	0	0.6
C206	Electronic Circuits Lab	2	1	1	1	1	1	0	3	2.1
C207	Basic Simulation Lab	3	0	0	0	0	3	3	3	3
C208	Digital System Design Lab	0	0	0	0	0	2	0	3	2.1
C210	Probability Theory & Stochastic Processes	1	1	1	1	1	1	1	3	2.4
C211	Material Science	3	3	3	3	3	3	3	3	3

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C212	Analog Circuits	3	0	2	0	1	0	1	3	2.4
C213	Analog & Digital Communications	1	1	3	0	0	1	2	3	2.7
C214	Microprocessors & Microcontrollers	2	2	0	1	0	0	1	3	2.4
C215	Analog Circuits Lab	0	1	1	1	1	3	1	3	2.4
C216	Analog & Digital Communications Lab	1	1	1	1	1	1	1	3	2.4
C217	Microprocessors & Microcontrollers Lab	1	0	0	0	0	3	1	3	2.4
<b>3<sup>rd</sup> Year</b>										
C301	VLSI Design	2	2	0	0	0	0	0	3	2.1
C302	Digital Signal Processing	2	3	3	3	0		2	3	2.7
C303	EM Theory and Transmission Lines	3	3	0	3	3	3	2	3	2.7
C304	Computer Organization	1	1	1	1	3	0	1	2	1.7
C305	Electronic Measurements and Instrumentation	3	2	1	3	3	3	3	2	2.3
C306	Information Theory and Coding	3	3	2	1	0	2	2	3	2.7
C307	Digital Signal Processing Lab	0	1	1	1	1	3	1	3	2.4
C308	e-CAD and VLSI Lab	2	1	1	1	1	3	2	3	2.7
C309	Employability and Soft Skills Lab	2	3	3	3	3	3	3	3	3
C310	Fundamentals of Data Structures	3	2	2	3	3	3	3	3	3
C311	Java Programming	1	1	2	2	0	3	2	3	2.7
C315	Introduction to Data Analytics	3	2	1	3	3	3	3	3	3
C316	Disaster Management	3	3	1	0	3	3	3	3	3
C317	Managerial Economics and Financial Analysis	2	2	3	2	3	3	3	3	3
C318	Principles of Computer Networks	3	1	2	0	0	3	1	3	2.4
C319	Linear Control Systems	2	0	2	0	2	2	0	3	2.1
C322	Bio-Medical Electronics	3	2	2	0	3	0	2	3	2.7
C323	Computer Networks Lab	0	3	3	3	3	3	2	3	2.7
C324	Electronic Design Lab	2	2	2	2	2	2	2	3	2.7
C325	Seminar	3	3	3	3			3	3	3
C327	Database Management Systems	3	3	1	3	3	0	3	3	3
C332	Behavioral Skills and Professional Communication	1	1	3	3	3	2	3	3	3
C333	Intellectual Property Rights	-	-	-	-	-	-	-	-	-
<b>4<sup>th</sup> Year</b>										
C401	Fundamentals of Management	3	3	1	0	3	3	3	3	3
C402	Microwave Engineering	2	1	2	3	0	1	1	3	2.4
C403	Digital Image and Video Processing	3	3	0	2	3	1	2	3	2.7
C404	Low Power VLSI Design	3	3	3	1	3	3	3	0	0.9
C405	Principles of Wireless Communications	3	3	0	0	0	3	1	0	0.3
C406	Artificial Intelligence	2	3	3	0	1	1	1	3	2.7

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C408	Embedded System Design	3	3	3	1	3	2	3	3	3
C409	Microwave Engineering Lab	0	1	1	1	1	2	1	3	2.4
C410	Mini Project	3	3	3	3	3	3	3	3	3
C411	Project Phase I	3	3	3	3	3	3	3	3	3
C413	Python Programming	1	2	2	2	2	2	2	3	2.7
C416	Waste Management Techniques and Power Generation	3	3	3	1	3	3	3	3	3
C417	Industrial Management	3	3	1	0	3	3	3	3	3
C418	Entrepreneurship and Project Management	3	3	2	2	0	2	2	3	2.7
C419	Global Navigation Satellite Systems	2	0	2	2	3	3	2	3	2.7
C422	Internet of Things	3	2	1	3	2	1	2	3	2.7
C425	Project Phase II	2	3	3	3	3	3	3	3	3
C431	Environment Impact Assessment	3	3	2	2	0	2	2	3	2.7

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*K. Ragini*

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