

C. V. Raman College of Engineering, Bhubaneswar

(An autonomous Institute affiliated to BPUT, Odisha)

Second Year B. Tech Structure with effect from Academic Year 2015-16 - (PATTERN A-15)

Department of Information Technology

SEMESTER III

Sl. No.	Code	Subject	Type	Teaching Scheme			Assessment Scheme					Credits	
				L	P	T	ISA				ESA		
							Test 1	Test 2	HA	Tut	CA	ESE	
S1	MA21005	Discrete Mathematics and Graph Theory	Theory – Core/MD	3	-	1	10	20	5	5	-	60	4
S2	CS20102	Object Oriented Programming concepts #	Theory – Core	3	-	1	10	20	5	5	-	60	4
S3	CS20101	Data Structures (DS)	Theory – Core	3	-	-	15	20	5	-	-	60	3
S4	CS20105	Data Communication and Computer Networks (DCCN)	Theory – Core	3	-	-	15	20	5	-	-	60	3
S5	EC21101	Semi Conductor Devices & Circuits (SCDC)	Theory – MD	3	-	-	15	20	5	-	-	60	2
P1	CS20301	DS Lab	Lab – Core	-	2	-	-	-	-	-	70	30	1
P2	CS20305	DCCN lab	Lab – Core	-	2	-	-	-	-	-	70	30	1
P3	EC21301	SCDC lab	Lab – MD	-	2	-	-	-	-	-	70	30	1
P4	IT24351	Linux OS Administration #	Lab – SD/PD	-	2	-	-	-	-	-	70	30	1
MP	IT27397	Mini Project (on DS, OOP etc.)	Project	-	4	-	-	-	-	-	70	30	2
	IT27401	Comprehensive Viva Voce* (Any 2 of S2-S4)	Oral	-	-	-	-	-	-	-	-	100	2
P5	HS27420	General Seminar (Effective Communication #)	Lab – (Comm.Skills)	-	2	-	-	-	-	-	70	30	1
* Based on any two core theory subjects as recommended by the BoS. , # indicates CDAC course				Total:	15	14	2						25

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SEMESTER IV

Sl. No.	Code	Subject	Type	Teaching Scheme			Assessment Scheme					Credits	
				L	P	T	ISA				ESA		
							Test 1	Test 2	HA	Tut	CA	ESE	
S1	MA21007	Probability & Statistics (PS)	Theory – Core/MD	3	-	-	15	20	5	-	-	60	3
S2	IT20102	Database Engineering (DBE)	Theory – Core	3	-	1	10	20	5	5	-	60	4
S3	CS20104	Design & Analysis of Algorithms (DAA)	Theory – Core	3	-	1	10	20	5	5	-	60	4
S4	IT20103	Cloud Computing #	Theory – Core	3	-	-	15	20	5	-	-	60	3
S5	EC21104	Digital Electronics Circuits (DEC)	Theory – MD	3	-	-	15	20	5	-	-	60	2
P1	IT20302	DBE lab	Lab – Core	-	2	-	-	-	-	-	70	30	1
P2	CS20304	DAA Lab	Lab – Core	-	2	-	-	-	-	-	70	30	1
P3	EC21304	DEC Lab	Lab – MD	-	2	-	-	-	-	-	70	30	1
P4	IT24353	Web Technology #	Lab – SD/PD	-	2	-	-	-	-	-	70	30	1
MP	IT27398	Mini Project #	Project	-	4	-	-	-	-	-	70	30	2
	IT27402	Comprehensive Viva Voce* (Any 2 of S1-S4)	Oral	-	-	-	-	-	-	-	-	100	2
P5	HS27421	Technical Writing	Lab – (Comm.Skills)	-	2	-	-	-	-	-	70	30	1
* Based on any two core theory subjects as recommended by the BoS. , # indicates CDAC course				Total:	15	14	2						25

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SEMESTER V

Sl. No.	Code	Subject	Type	Teaching Scheme			Assessment Scheme						Credits
				L	P	T	ISA					ESA	
							Test 1	Test 2	HA	Tut	CA	ESE	
S1	CS30106	Computer Organization (CO)	Theory – Core/MD	3	-	1	10	20	5	5	-	60	4
S2	CS30108	Theory of Computation (TC)	Theory – Core	3	-	1	10	20	5	5	-	60	4
S3	IT30104	Concepts of Data Modelling #	Theory – Core	3	-	-	15	20	5	-	-	60	3
S4	CS30103	Big Data Analysis #	Theory – Core	3	-	-	15	20	5	-	-	60	3
S5	IT30108	Data Mining	Theory – MD	3	-	-	15	20	5	-	-	60	2
P1	CS30303	Big Data Analysis Lab #	Lab – Core	-	2	-	-	-	-	-	70	30	1
P2	CS30306	CO Lab	Lab – Core	-	2	-	-	-	-	-	70	30	1
P3	IT30308	Data Mining Lab	Lab – MD	-	2	-	-	-	-	-	70	30	1
P4	IT34352	J2EE Enterprise JAVA lab #	Lab – SD/PD	-	2	-	-	-	-	-	70	30	1
MP	IT37397	Mini Project	Project	-	4	-	-	-	-	-	70	30	2
	IT37401	Comprehensive Viva Voce* (any 2 of S1-S4)	Oral	-	-	-	-	-	-	-	-	100	2
P5	IT37403	Technical Seminar	Lab	-	2	-	-	-	-	-	-	100	1
* Based on any two core theory subjects as recommended by the BoS. , # indicates CDAC course				Total:	15	14	2						25

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SEMESTER VI

Sl. No.	Code	Subject	Type	Teaching Scheme			Assessment Scheme						Credits
				L	P	T	ISA					ESA	
							Test 1	Test 2	HA	Tut.	CA	ESE	
S1	IT30109	IT Security #	Theory – Core	3	-	-	15	20	5	-	-	60	3
S2	CS30110	Machine Learning (ML)	Theory – Core /MD	3	-	-	15	20	5	-	-	60	3
S3	CS30109	Operating Systems (OS)	Theory – Core	3	-	1	10	20	5	5	-	60	4
S4	CS30114	Advanced Computer Architecture(ACA)	Theory – Core	3	-	1	10	20	5	5	-	60	4
S5	MB43101	Principles of Management	Theory – MD	3	-	-	15	20	5	-	-	60	2
P1	CS30309	OS Lab	Lab – Core	-	2	-	-	-	-	-	70	30	1
P2	CS30310	ML Lab	Lab – MD	-	2	-	-	-	-	-	70	30	1
P3	IT30307	Parallel Computing Lab	Lab – Core	-	2	-	-	-	-	-	70	30	1
P4	IT34354	Advanced Programming Lab	Lab – SD/PD	-	2	-	-	-	-	-	70	30	1
MP	IT37398	Major Project Stage I #	Project	-	4	-	-	-	-	-	70	30	2
	IT37402	Comprehensive Viva Voce* (any 2 of S1-S4)	Oral	-	-	-	-	-	-	-	-	100	2
P5	IN37403	Pre-Placement Training (Quantitative Aptitude Skills #)	Lab	-	2	-	-	-	-	-	-	100	1
* Based on any two core theory subjects as recommended by the BoS. , # indicates CDAC course				Total:	15	14	2						25

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SEMESTER VII

Sl. No.	Code	Subject	Type	Teaching Scheme			Assessment Scheme						Credits
				L	P	T	ISA					ESA	
							Test 1	Test 2	HA	Tut.	CA	ESE	
S1	IT40110	Software Project Management (SPM)	Theory – Core	3	-	1	10	20	5	5	-	60	4
S2	IT40106	Software Engineering (Information System Design #)	Theory – Core	3	-	-	15	20	5	-	-	60	3
S3		Elective I- As per list	Prof. Elective	3	-	-	15	20	5	-	-	60	3
S4		Elective II - As per list	Open Elective	3	-	1	10	20	5	5	-	60	4
P1	IT40306	SE Lab (open source)	Lab – Core	-	2	-	-	-	-	-	70	30	1
P2		Lab for Elective I - As per list	Lab – Elective	-	2	-	-	-	-	-	70	30	1
P3	IN47404	Ind-Training/ Internship/ Training imparted by software Industries/ Laboratories/COEs- Report & Viva	Lab	-	2	-	-	-	-	-	-	100	1
P4	MB41301	Ethics for Engineers	Lab	-	2	-	-	-	-	-	-	100	1
MP	IT47497	Major Project Stage II	Project	-	6	-	-	-	-	-	-	100	3
# indicates CDAC course – (Management Development Program #)				Total:	12	14	2						21

List of 7th Semester Elective-I (S3) with Lab (P2)

IT42123	Wireless Sensor Networks (WSN)	IT42323	WSN Lab
CS42175	Mobile Computing(Android Programming and Mobile Communications) #	CS42375	MC LAB #
IT42175	Bioinformatics	IT42375	Bioinformatics Lab

List of 7th Semester Elective-II (S4) Open Elective with Tutorial

CS42172	Digital Image Processing (DIP)		
IT42115	Real Time System (RTS)	CS40111	Embedded System
CS42173	Distributed Operating System (DOS)	IT42182	Cryptography & Network Security
IT42177	Parallel and Distributed System (PDS)		

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SEMESTER VIII

Sl.	Code	Subject	Type	Teaching Scheme			Assessment Scheme						Credits
				L	P	T	ISA					ESA	
							Test 1	Test 2	HA	Tut	CA		
S1	HT40105	IT Service Management (ITSM) #	Theory – Core	3	-	1	10	20	5	5	-	60	4
S2	IT40108	Computational Intelligence (CI)	Theory – Core	3	-	-	15	20	5	-	-	60	3
S3		Elective I - As per list	Prof. Elective	3	-	-	15	20	5	-	-	60	3
S4		Elective II - As per list	Open Elective	3	-	1	10	20	5	5	-	60	4
P1	IT40308	CI Lab	Lab – Core	-	2	-	-	-	-	-	70	30	1
P2		Elective I Lab - As per list	Lab – Elective I	-	2	-	-	-	-	-	70	30	1
MP	IT47398	Major Project Stage III #	Project	-	8	-	-	-	-	-	70	30	5
# indicates CDAC course				Total:	12	12	2						21

List of 8th semester Elective-I (S3) with Lab (P2)

Code	Subject	Code	Lab
CS42176	Pervasive Computing #	CS42376	Pervasive Computing Lab #
CS42170	Computer Graphics (CG)	CS42370	CG lab
IT42180	Software Testing (ST)	IT42380	ST Lab
IT42181	Natural Language Processing (NLP)	IT42381	NLP Lab

List of 8th Semester Elective-II (S4) Open Elective with Tutorial

MB43102	Entrepreneurship Development	MB43105	Organization Behaviour
MB43103	Marketing Management	EC43110	Digital Signal Processing (DSP)
MB43101	Principles of Management		