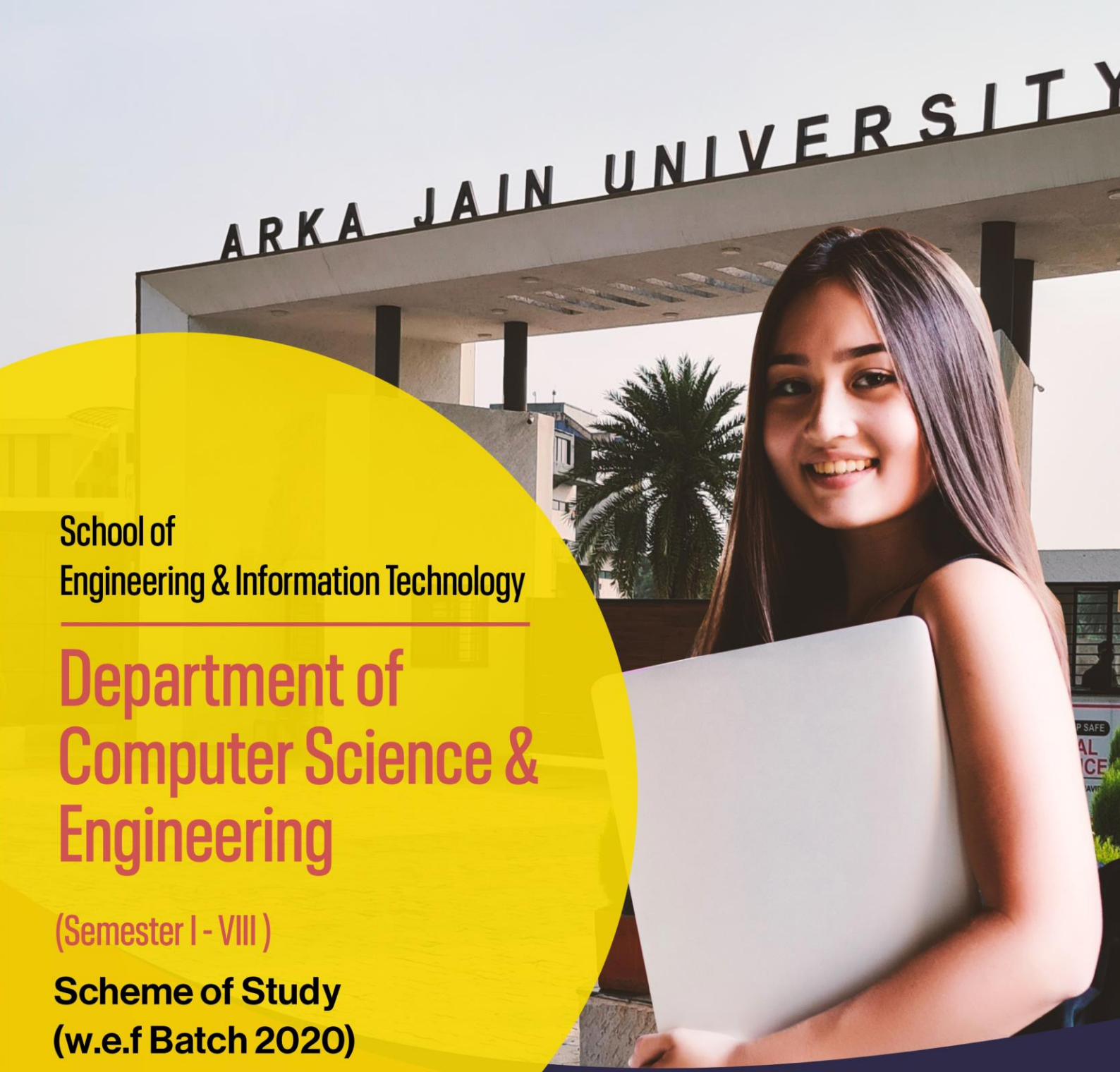

School of
Engineering & Information Technology

Department of Computer Science & Engineering

(Semester I - VIII)

Scheme of Study
(w.e.f Batch 2020)

JGi

ARKA JAIN University
Jharkhand

SEMESTER –I

Name of the Subject	Group	L-T-P	Credit
Engineering Mathematics–I	A & B	03-01-2000	4
Engineering Chemistry	A	3-0-0	3
Programming for Problem Solving	B	3-0-0	3
Basic Electrical Engineering	A	03-01-2000	4
Engineering physics	B	03-01-2000	4
Engineering Mechanics	A	3-0-0	3
English for Communication	B	3-0-0	3
Constitution of India	B	0-0-0	0
Engineering Chemistry Lab	A	0-0-1	1
Engineering Physics Lab	B	0-0-1	1
Basic Electrical Engineering Lab	A	0-0-1	1
Programming for Problem Solving Lab	B	0-0-2	2
Engineering Mechanics Lab	A	0-0-1	1
Engineering Graphics & Design	A	0-0-2	2
Workshop Practices	B	0-0-2	2
TOTAL	A or B	12-02-2005	19

SEMESTER –II

Name of the Subject	Group	L-T-P	Credit
Engineering Mathematics–II	A & B	03-01-2000	4
Engineering Chemistry	B	3-0-0	3
Programming for Problem Solving	A	3-0-0	3
Basic Electrical Engineering	B	03-01-2000	4
Engineering physics	A	03-01-2000	4
Engineering Mechanics	B	3-0-0	3
English for Communication	A	3-0-0	3
Constitution of India	A	0-0-0	0
Engineering Chemistry Lab	B	0-0-1	1
Engineering Physics Lab	A	0-0-1	1
Basic Electrical Engineering Lab	B	0-0-1	1
Programming for Problem Solving Lab	A	0-0-2	2
Engineering Mechanics Lab	B	0-0-1	1
Engineering Graphics& Design	B	0-0-2	2
Workshop Practices	A	0-0-2	2
TOTAL	A or B	12-02-2005	19

SEMESTER –I (Group-A)

Name of the Subject	Type of Paper	Credit	Contact Hours Per Week	Total Marks	End Term Theory/Practical Exam	Mid Term Theory/Practical Exam	CIA*	Attendance
Engineering Chemistry	BSC	3	3	100	70	20	5	5
Engineering Mathematics–I	BSC	4	4	100	70	20	5	5
Basic Electrical Engineering	ESC	4	4	100	70	20	5	5
Engineering Mechanics	ESC	3	3	100	70	20	5	5
Engineering Chemistry Lab	BSC	1	2	50	35	5	5	5
Basic Electrical Engineering Lab	ESC	1	2	50	35	5	5	5
Engineering Mechanics Lab	ESC	1	2	50	35	5	5	5
Engineering Graphics & Design	ESC	2	4	50	35	5	5	5
TOTAL		**19**	**24**	**600**	**420**	**100**	**40**	**40**

SEMESTER I (Group-B)

Name of the Subject	Type of Paper	Credit	Contact Hours Per Week	Total Marks	End Term Theory/Practical Exam	Mid Term Theory/Practical Exam	CIA*	Attendance
Engineering physics	BSC	4	4	100	70	20	5	5
Engineering Mathematics –I	BSC	4	4	100	70	20	5	5
Programming for Problem Solving	ESC	3	3	100	70	20	5	5
English for Communication	HSMC	3	3	100	70	20	5	5
Constitution of India	MC	0	2	50	35	10	2.5	2.5
Engineering physics Lab	BSC	1	2	50	35	5	5	5
Programming for Problem Solving Lab	ESC	2	4	50	35	5	5	5
Workshop Practices	ESC	2	4	50	35	5	5	5
TOTAL		**19**	**26**	**600**	**420**	**105**	**37.5**	**37.5**

SEMESTER II (Group-A)

Name of the Subject	Type of Paper	Credit	Contact Hours Per Week	Total Marks	End Term Theory/Practical Exam	Mid Term Theory/Practical Exam	CIA*	Attendance
Engineering physics	BSC	4	4	100	70	20	5	5
Engineering Mathematics – II	BSC	4	4	100	70	20	5	5
Programming for Problem Solving	ESC	3	3	100	70	20	5	5
English for Communication	HSMC	3	3	100	70	20	5	5
Constitution of India	MC	0	2	50	35	10	2.5	2.5
Engineering physics Lab	BSC	1	2	50	35	5	5	5
Programming for Problem Solving Lab	ESC	2	4	50	35	5	5	5
Workshop Practices	ESC	2	4	50	35	5	5	5
TOTAL		**19**	**26**	**600**	**420**	**105**	**37.5**	**37.5**

SEMESTER –II (Group-B)

Name of the Subject	Type of Paper	Credit	Contact Hours Per Week	Total Marks	End Term Theory/Practical Exam	Mid Term Theory/Practical Exam	CIA*	Attendance
Engineering Chemistry	BSC	3	3	100	70	20	5	5
Engineering Mathematics–II	BSC	4	4	100	70	20	5	5
Basic Electrical Engineering	ESC	4	4	100	70	20	5	5
Engineering Mechanics	ESC	3	3	100	70	20	5	5
Engineering Chemistry Lab	BSC	1	2	50	35	5	5	5
Basic Electrical Engineering Lab	ESC	1	2	50	35	5	5	5
Engineering Mechanics Lab	ESC	1	2	50	35	5	5	5
Engineering Graphics & Design	ESC	2	4	50	35	5	5	5
TOTAL		**19**	**24**	**600**	**420**	**100**	**40**	**40**

SEMESTER-III

Name of the Subject	Type of Paper	Credit	Contact Hours Per Week	Total Marks	End Term Theory/Practical Exam	Mid Term Theory/Practical Exam	CIA*	Attendance
Analog Electronic Circuits	PCC	3	3	100	70	20	5	5
Data structure	PCC	3	3	100	70	20	5	5
Digital Electronics	PCC	3	3	100	70	20	5	5
Engineering Mathematics -III	BSC	4	3	100	70	20	5	5
Humanities-I	HSMC	3	3	100	70	20	5	5
Professional Practice, Law & Ethics								
Organizational Behavior								
Environmental Science	MC	0	2	50	35	10	2.5	2.5
Python Programming	PCC	3	3	100	70	20	5	5
Analog Electronic Circuits Lab	PCC	2	4	50	35	5	5	5
Data structure Lab	PCC	2	4	50	35	5	5	5
Digital Electronics Lab	PCC	2	4	50	35	5	5	5
IT Workshop(MATLAB)	PCC	1	2	50	35	5	5	5
Python Programming Lab	PCC	2	4	50	35	5	5	5
TOTAL		28	38	900	640	155	57.5	57.5

SEMESTER-IV

Name of the Subject	Type of Paper	Credit	Contact Hours Per Week	Total Marks	End Term Theory/Practical Exam	Mid Term Theory/Practical Exam	CIA*	Attendance
Discrete Mathematics	BSC	4	4	100	70	20	5	5
Computer Organization & Architecture	PCC	3	3	100	70	20	5	5
Operating Systems	PCC	3	3	100	70	20	5	5
Design & Analysis of Algorithms	PCC	3	3	100	70	20	5	5
Microprocessor & Microcontroller	PCC	3	3	100	70	20	5	5
Software Engineering	PCC	3	3	100	70	20	5	5
Operating Systems Lab	PCC	2	4	50	35	5	5	5
Design & Analysis of Algorithms Lab	PCC	2	4	50	35	5	5	5
Computer Organization & Architecture Lab	PCC	2	4	50	35	5	5	5
TOTAL		25	31	750	525	135	45	45

SEMESTER V

Name of the Subject	Type of Paper	Credit	Contact Hours Per Week	Total Marks	End Term Theory/Practical Exam	Mid Term Theory/Practical Exam	CIA*	Attendance
Signals & Systems	PCC	3	3	100	70	20	5	5
Database Management Systems	PCC	3	3	100	70	20	5	5
Formal Language &Automata Theory	PCC	3	3	100	70	20	5	5
Object Oriented Programming	PCC	3	3	100	70	20	5	5
Humanities-II Soft Skills and Interpersonal Communication	HSMC	3	3	100	70	20	5	5
Elective-1 Graph Theory ImageProcessing Advanced Algorithms	PEC	3	3	100	70	20	5	5
Database Management Systems Lab	PCC	2	4	50	35	5	5	5
Object Oriented Programming Lab	PCC	2	4	50	35	5	5	5
Summer Internship-I (3-4 Weeks)	PCC	1	0	50	50	0	0	0
TOTAL		23	26	750	540	130	40	40

SEMESTER VI

Name of the Subject	Type of Paper	Credit	Contact Hours Per Week	Total Marks	End Term Theory/Practical Exam	Mid Term Theory/Practical Exam	CIA*	Attendance
Compiler Design	PCC	3	3	100	70	20	5	5
Computer Networks	PCC	3	3	100	70	20	5	5
Advance Java Programming	PCC	3	3	100	70	20	5	5
Elective-II				100	70	20	5	5
Artificial Intelligence								
Machine Learning	PEC							
Visual Programming		3	3					
Elective-III				100	70	20	5	5
Web Technology	PEC	3	3					
Neural Networks and Deep Learning								
Open Elective –I				100	70	20	5	5
Cyber Law and Ethics								
Human Resource Development and Organizational Behavior								
Advanced Algorithms	HSMC	3	3					
Compiler Design Lab	PCC	2	4	50	35	5	5	5
Computer Networks Lab	PCC	2	4	50	35	5	5	5
Advance Java Programming Lab	PCC	2	4	50	35	5	5	5
TOTAL		24	30	750	525	135	45	4

SEMESTER VII

Name of the Subject	Type of Paper	Credit	Contact Hours Per Week	Total Marks	End Term Theory/Practical Exam	Mid Term Theory/Practical Exam	CIA*	Attendance
Elective-IV				100	70	20	5	5
Cryptography & Network Security								
Advanced Operating Systems								
Web and Internet	PEC	3	3					
Elective-V				100	70	20	5	5
Quantum Computing								
Optimization Techniques	PEC							
Real Time Systems		3	3					
Open Elective-II				100	70	20	5	5
Electronic Design Automation								
Computer Graphics								
Data mining and warehousing	OEC							
Semantic Web and Social Networks		3	3					
Biology For Engineers	BSC	3	3	100	70	20	5	5
Data Analytics	PCC	3	3	100	70	20	5	5
Minor Project	PROJ	4	8	100	100	0	0	0
Industrial Training (Summer Internship-4-6 Week)	PROJ	4	0	100	100	0	0	0
TOTAL		23	23	700	550	100	25	25

SEMESTER VIII

Name of the Subject	Type of Paper	Credit	Contact Hours Per Week	Total Marks	End Term Theory/ Practical Exam	Mid Term Theory/ Practical Exam	CIA*	Attendance
Elective-VI								
CloudComputing								
Data Mining	PEC	3	3	100	70	20	5	5
AdvancedComputerArchitecture								
Open Elective-III								
Signals and systems	OEC	3	3	100	70	20	5	5
Advanced Operating Systems								
Open Elective-IV								
Cyber security	OEC	3	3	100	70	20	5	5
Soft Computing								
VLSI System Design	PCC	3	3	100	70	20	5	5
Major Project	PROJ	6	12	100	0	0	0	0
Extra- Curricular/ Co-Curricular Activity	PROJ	0	0	100	70	30	0	0
Total		18	24	600	35	110	20	20