

ARKA JAIN UNIVERSITY

School of
Engineering & Information Technology

Department of
Engineering & Polytechnic

FACULTY - DIPLOMA IN COMPUTER SCI. & ENGG.

(Semester I - VI)

Scheme of Study
(w.e.f Batch 2020-21)



ARKA JAIN
University
Jharkhand (Jamshedpur)



SEMESTER - I (GROUP A)

S.No	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
1	Communication Skills in English	HSC	3	3	100	70	20	5	5
2	Mathematics - I	BSC	4	4	100	70	20	5	5
3	Applied Physics	BSC	4	4	100	70	20	5	5
4	Applied Chemistry	BSC	4	4	100	70	20	5	5
	Practical								
5	Engineering Workshop Practice	ESC	2	4	50	35	5	5	5
6	Applied Physics Lab	BSC	1	2	50	35	5	5	5
7	Applied Chemistry Lab	BSC	1	2	50	35	5	5	5
8	Communication Skills in English Lab	HSC	1	2	50	35	5	5	5
	Total		20	25	600	420	100	40	40



SEMESTER - I (GROUP B)

S.No	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
1	Mathematics -I	BSC	4	4	100	70	20	5	5
2	Fundamentals of Electrical & Electronics Engg.	ESC	4	4	100	70	20	5	5
3	Introduction to IT system	ESC	3	3	100	70	20	5	5
4	Engineering Mechanics	ESC	4	4	100	70	20	5	5
5	Environmental Science	AC	0	2	50	35	10	2.5	2.5
	Practical								
6	Fundamentals of electrical & electronics Engg. Lab	ESC	1	2	50	35	5	5	5
7	Introduction to IT system Lab	ESC	1	2	50	35	5	5	5
8	Engineering Mechanics Lab	ESC	1	2	50	35	5	5	5
9	Engineering Graphics	ESC	2	4	50	35	5	5	5
	Total		20	27	650	455	110	42.5	42.5



SEMESTER - II (GROUP A)

S.No	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
1	Mathematics -II	BSC	4	4	100	70	20	5	5
2	Fundamentals of Electrical & Electronics Engg.	ESC	4	4	100	70	20	5	5
3	Introduction to IT system	ESC	3	3	100	70	20	5	5
4	Engineering Mechanics	ESC	4	4	100	70	20	5	5
5	Environmental Science	AC	0	2	50	35	10	2.5	2.5
	Practical								
6	Fundamentals of electrical & electronics Engg. Lab	ESC	1	2	50	35	5	5	5
7	Introduction to IT system Lab	ESC	1	2	50	35	5	5	5
8	Engineering Mechanics Lab	ESC	1	2	50	35	5	5	5
9	Engineering Graphics	ESC	2	4	50	35	5	5	5
	Total		20	27	650	455	110	42.5	42.5



SEMESTER - II (GROUP B)

S.No	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
1	Communication Skills in English	HSC	3	3	100	70	20	5	5
2	Mathematics - II	BSC	4	4	100	70	20	5	5
3	Applied Physics	BSC	4	4	100	70	20	5	5
4	Applied Chemistry	BSC	4	4	100	70	20	5	5
	Practical								
5	Engineering Workshop Practice	ESC	2	4	50	35	5	5	5
6	Applied Physics Lab	BSC	1	2	50	35	5	5	5
7	Applied Chemistry Lab	BSC	1	2	50	35	5	5	5
8	Communication Skills in English Lab	HSC	1	2	50	35	5	5	5
	Total		20	25	600	420	100	40	40



SEMESTER - III

S.No	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
1	Python Programming	PCC	3	3	100	70	20	5	5
2	Data Structure	PCC	3	3	100	70	20	5	5
3	Computer System Organization	PCC	3	3	100	70	20	5	5
4	Computer Programming	PCC	3	3	100	70	20	5	5
5	Algorithms	PCC	3	3	100	70	20	5	5
6	Essence of Indian Knowledge Tradition	AC	0	2	50	35	10	2.5	2.5
	Practical								
7	Data Structure Lab	PCC	2	4	50	35	5	5	5
8	Computer Programming Lab	PCC	2	4	50	35	5	5	5
9	Python Programming Lab	PCC	2	4	50	35	5	5	5
10	Summer Internship-I (3 - 4 Weeks)	PROJ	2	0	50	35	15	0	0
	Total		23	29	750	525	140	42.5	42.5



SEMESTER - IV

S.No	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
1	Operating System	PCC	3	3	100	70	20	5	5
2	Computer Network	PCC	3	3	100	70	20	5	5
3	Web Technologies	PCC	3	3	100	70	20	5	5
4	Introduction to DBMS	PCC	3	3	100	70	20	5	5
5	Software Engineering	PEC	3	3	100	70	20	5	5
6	Open Elective Artificial Intelligence & Machine Learning Soft Computing Techniques	OEC	3	3	100	70	20	5	5
	Practical								
7	Web Technologies Lab	PCC	2	4	50	35	5	5	5
8	Operating System Lab	PCC	2	4	50	35	5	5	5
9	Introduction to DBMS Lab	PCC	2	4	50	35	5	5	5
10	Minor Project	PROJ	2	4	50	35	15	0	0
	Total		27	36	850	595	165	45	45



SEMESTER - V

S.No	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
1	Introduction to E - Governance	PCC	3	3	100	70	20	5	5
2	Internet of Things	OEC	3	3	100	70	20	5	5
3	Program Elective - I Information Security Fundamentals of AI	PEC	3	3	100	70	20	5	5
4	Program Elective - II Mobile Computing Data Sciences: Data Warehousing & Data Mining	PEC	3	3	100	70	20	5	5
5	Open Elective - II Web Designing and Multimedia Technology Robotics	OEC	3	3	100	70	20	5	5
	Practical								
6	Summer Internship - II (4-6 Weeks)	PROJ	3	0	100	70	30	0	0
7	Major Project - I	PROJ	1	2	50	35	15	0	0
	Total		19	17	650	455	145	25	25

SEMESTER - VI

S.No	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
1	Program Elective - III Multimedia Technology Advance Computer Networks	PEC	3	3	100	70	20	5	5
2	Program Elective - IV Network Forensics Software Testing	PEC	3	3	100	70	20	5	5
3	Open elective - III Cyber Security Laws, Standards and IPR Sustainable Development	OEC	3	3	100	70	20	5	5
4	Entrepreneurship and Start-ups	PROJ	4	4	100	70	20	5	5
5	Indian constitution	AC	0	2	50	35	10	2.5	2.5
	Practical								
6	Seminar	PROJ	1	2	50	35	15	0	0
7	Major Project - II	PROJ	3	6	100	70	30	0	0
	Total		17	23	600	420	135	22.5	22.5



DISTRIBUTION OF CREDIT ACROSS 6 SEMESTERS:

Sl. No	Type of Paper	No. of Paper	Total Credit
1	Humanities and Social Sciences Courses (HSC)	2	4
2	Basic Science courses (BSC)	6	18
3	Engineering Science courses (ESC)	8	18
4	Professional core courses (PCC)	17	45
5	Professional Elective courses (PEC)	4	12
6	Open Electives Courses (OEC)	4	12
7	Project work, seminar and internship in industry or elsewhere (PROJ)	7	16
8	Audit Courses [Environmental Sciences, Induction training, Indian Constitution, Essence of Indian Knowledge Tradition] (AC)	3	(non-credit)
	Total	51	125

CIA - Continuous Internal Assessment - Based on Projects / Assignment during the semester

Note:

AICTE Activity Points to be earned by students admitted to Diploma program (For more details refer to Chapter 6, AICTE, Activity Point Program, Model Internship Guidelines):

Every regular student, who is admitted to the 3 year Diploma program, is required to earn 75 activity points in addition to the total credits earned for the program. Students entering 3 years Diploma Program through lateral entry are required to earn 50 activity points in addition to the total credits earned for the program. The activity points earned by the student shall be reflected on the students 6th Semester grade card.

The activities to earn the points can be spread over the duration of the course. However, minimum prescribed duration should be fulfilled.

Activity Points (non-credit) have no effect on SGPA/CGPA and shall not be considered for vertical progression.

Incase student fail to earn the prescribed activity points, Sixth semester Grade Card shall be issued only after earning the required activity Points.

Students shall be eligible for the award of degree only after the release of the Six Semester grade card.

There are two groups (A & B) in semester 1 & 2. The Group division will be decided by The Dean SoE & IT before commencement of classes