

ARKA JAIN UNIVERSITY

School of
Engineering & Information Technology

Department of
Engineering & Polytechnic

FACULTY - DIPLOMA IN CIVIL 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	5	5
	Practical								
5	Fundamentals of electrical & electronics Engg. Lab	ESC	1	2	50	35	5	5	5
6	Introduction to IT system Lab	ESC	1	2	50	35	5	5	5
7	Engineering Mechanics Lab	ESC	1	2	50	35	5	5	5
8	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								
5	Fundamentals of electrical & electronics Engg. Lab	ESC	1	2	50	35	5	5	5
6	Introduction to IT system Lab	ESC	1	2	50	35	5	5	5
7	Engineering Mechanics Lab	ESC	1	2	50	35	5	5	5
8	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	Construction Material	PCC	3	3	100	70	20	5	5
2	Basic Surveying	PCC	3	3	100	70	20	5	5
3	Mechanics of Materials	PCC	3	3	100	70	20	5	5
4	Building Construction	PCC	3	3	100	70	20	5	5
5	Geotechnical Engineering	PCC	3	3	100	70	20	5	5
6	Essence of Indian Knowledge and Tradition	AC	0	2	50	35	10	2.5	2.5
	Practical								
7	Construction Material Lab	PCC	1	2	50	35	5	5	5
8	Mechanics of Materials Lab	PCC	1	2	50	35	5	5	5
9	Geotechnical Engineering Lab	PCC	1	2	50	35	5	5	5
10	Basic Surveying Lab	PCC	1	2	50	35	5	5	5
11	Summer Internship 1(3-4 Weeks)	PROJ	2	0	50	35	15	0	0
	Total		21	25	800	560	145	47.5	47.5

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	Hydraulics	PCC	3	3	100	70	20	5	5
2	Advanced Surveying	PCC	3	3	100	70	20	5	5
3	Theory of Structure	PCC	3	3	100	70	20	5	5
4	Transportation Engineering	PCC	3	3	100	70	20	5	5
5	Concrete Technology	PCC	3	3	100	70	20	5	5
6	Elective-I Precast and Prestressed Concrete Construction & Project Management Rural Construction Technology	PEC	3	3	100	70	20	5	5
	Practical								
7	Concrete Technology Lab	PCC	1	2	50	35	5	5	5
8	Building Planning & Drawing Lab	PCC	1	2	50	35	5	5	5
9	Advanced Surveying Lab	PCC	1	2	50	35	5	5	5
10	Transportation Engineering Lab	PCC	1	2	50	35	5	5	5
11	Hydraulics Lab	PCC	1	2	50	35	5	5	5
11	Minor Project	PROJ	2	4	50	35	15	0	0
	Total		25	32	900	630	160	55	55

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	Design of steel & RCC structure	PCC	3	3	100	70	20	5	5
2	Estimation Costing & Valuation	PCC	3	3	100	70	20	5	5
3	Elective - II Traffic Engineering Solid Waste Management Advanced Construction Technology	PEC	3	3	100	70	20	5	5
4	Elective - III Pavement Design & maintenance Green Building and Energy Conservation Building Services and Maintenance	PEC	3	3	100	70	20	5	5
5	Open Elective - III Engineering Economics & Accountancy Renewable Energy Technologies Numerical Methods	OEC	3	3	100	70	20	5	5
6	Water Resource Engineering	PCC	3	3	100	70	20	5	5
	Practical								
7	Design of steel & RCC structure Lab	PCC	1	2	100	70	20	5	5
8	Estimation Costing & Valuation Lab	PCC	1	2	50	35	5	5	5
9	Summer Internship - II (4-6 Weeks)	PROJ	3	0	100	70	30	0	0
10	Major Project - I (Project to be carried over to next semester)	PROJ	1	2	50	35	15	0	0
	Total		24	24	900	630	190	40	40

Project to be carried over to next semester

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	Public Health Engineering	HSMC	3	3	100	70	20	5	5
2	Elective - IV Repairs and Maintenance of Structures Advanced Design of Structures Tendering and Accounts	PEC	3	3	100	70	20	5	5
3	Entrepreneurship and Start - ups	PROJ	4	4	100	70	20	5	5
4	Open Elective-II Project Management Disaster Management Operations Research	OEC	3	3	100	70	20	5	5
5	Open Elective - III Sustainable Development Artificial Intelligence History of Science and Engineering	OEC	3	3	100	70	20	5	5
6	Indian constitution	AC	0	2	50	35	10	2.5	2.5
	Practical								
7	Public Health Engineering Lab	HSMC	1	2	50	35	5	5	5
7	Seminar	PROJ	1	2	50	35	5	5	5
8	Major Project - II	PROJ	3	0	100	100	0	0	0
	Total		21	22	750	555	120	37.5	37.5



DISTRIBUTION OF CREDIT ACROSS 6 SEMESTERS:

Sl. No	Type of Paper	No. of Paper	Total Credit
1	Humanities and Social Sciences Courses (HSC)	4	8
2	Basic Science courses (BSC)	6	19
3	Engineering Science courses (ESC)	8	18
4	Professional core courses (PCC)	24	50
5	Professional Elective courses (PEC)	4	12
6	Open Electives Courses (OEC)	3	9
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	59	32

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