ARKA JAIN University
Jharkhand (Jamshedpur)

Recognized by UGC
Approved by AICTE

Scheme of Study of the Program

Bachelor of Technology-

Computer Science & Engineering (B.Tech-CSE)

Semester-I, II, III, IV, V, VI, VII & VIII

(Batch 2018-2022)

Semester I – Scheme of Study

S.No	Name of the Subject	Credit	Contact Hours Per Week	Total Marks	End Term Theory/ Practical Exam	Mid Term Theory/ Practical Exam	CIA	Attendance
1	Communicative English *	3	3	100	70	20	5	5
2	Engineering Mathematics -I $	4	4	100	70	20	5	5
3	Environment & Ecology *	3	3	100	70	20	5	5
4	Basic Electrical Engg. #	3	4	100	70	20	5	5
5	Computer Programming #	3	4	100	70	20	5	5
6	Engineering Graphics #	3	4	100	70	20	5	5
	Practical							
7	Basic Electrical Engg. Lab #	2	3	50	35	5	5	5
8	Computer Programming Lab #	2	3	50	35	5	5	5
9	Engineering Graphics Lab #	2	3	50	35	5	5	5
10	Workshop Practice Lab #	2	3	50	35	5	5	5
	TOTAL	**27**	**34**	**800**	**560**	**140**	**50**	**50**

Semester II – Scheme of Study

S.No	Name of the Subject	Credit	Contact Hours Per Week	Total Marks	End Term Theory/ Practical Exam	Mid Term Theory/ Practical Exam	CIA	Attendance
1	Science, Society & Ethical Value	3	3	100	70	20	5	5
2	Engineering Mathematics-II	3	3	100	70	20	5	5
3	Engineering Mechanics	3	3	100	70	20	5	5
4	Engineering Physics	4	4	100	70	20	5	5
5	Engineering Chemistry	4	4	100	70	20	5	5
6	Elements of Mechanical Engg.	4	4	100	70	20	5	5
	PRACTICAL							
7	Engineering Mechanics Lab	2	2	50	35	5	5	5
8	Engineering Physics Lab	2	2	50	35	5	5	5
9	Engineering Chemistry Lab	2	2	50	35	5	5	5
10	Elements of Mechanical Engg. Lab	2	2	50	35	5	5	5
	Total	29	29	800	560	140	50	50

SEMESTER-III

S.No	Name of the Subject	Credit	Contact Hours Per Week	Total Marks	End Term Theory/ Practical Exam	Mid Term Theory/ Practical Exam	CIA	Attendance
1	Analog Electronic Circuits	3	3	100	70	20	5	5
2	Data structure &Algorithms	3	3	100	70	20	5	5
3	Digital Electronics	3	3	100	70	20	5	5
4	Object Oriented Programming using C++	3	3	100	70	20	5	5
5	Engineering Mathematics-III (Differential Calculus)	2	2	100	70	20	5	5
6	Humanities-I Effective Technical communication	3	3	100	70	20	5	5
	PRACTICAL							
7	Analog Electronic Circuits	2	4	50	35	5	5	5
8	Data structure &Algorithms	2	4	50	35	5	5	5
9	Digital Electronics	2	4	50	35	5	5	5
10	Object Oriented Programming using C++	2	4	50	35	5	5	5
	TOTAL	25	33	800	560	120	70	50

SEMESTER-IV

S.No	Name of the Subject	Credit	Contact Hours Per Week	Total Marks	End Term Theory/ Practical Exam	Mid Term Theory/ Practical Exam	CIA	Attendance
1	Discrete Mathematics	4	4	100	70	20	5	5
2	Computer Organization & Architecture	3	3	100	70	20	5	5
3	Operating Systems	3	3	100	70	20	5	5
4	Design & Analysis of Algorithms	3	3	100	70	20	5	5
5	Management I (Organizational Behavior/ Finance &Accounting)	3	3	100	70	20	5	5
	PRACTICAL							
8	Operating Systems	2	4	50	35	5	5	5
9	Design & Analysis of Algorithms	2	4	50	35	5	5	5
	TOTAL	**20**	**24**	**600**	**420**	**100**	**35**	**35**

SEMESTER V

S.No	Name of the Subject	Credit	Contact Hours Per Week	Total Marks	End Term Theory/ Practical Exam	Mid Term Theory / Practical Exam	CIA	Attendance
1	Microprocessor	3	3	100	70	20	5	5
2	Database Management Systems	3	3	100	70	20	5	5
3	Formal Language &Automata Theory	3	3	100	70	20	5	5
4	Introduction to Java Programming language	3	3	100	70	20	5	5
5	Elective-I 5.a. Software Engineering 5.b. Data Mining 5.c. Embedded Systems	3	3	100	70	20	5	5
	PRACTICAL							
6	Microprocessor	2	4	50	35	5	5	5
7	Database Management Systems	2	4	50	35	5	5	5
8	Introduction to Java Programming language	2	4	50	35	5	5	5
	TOTAL	**21**	**27**	**650**	**455**	**115**	**40**	**40**

SEMESTER VI

S.No	Name of the Subject	Credit	Contact Hours Per Week	Total Marks	End Term Theory/ Practical Exam	Mid Term Theory/ Practical Exam	CIA	Attendance
1	Compiler Design	3	3	100	70	20	5	5
2	Computer Networks	3	3	100	70	20	5	5
3	Elective-II Artificial Intelligence Machine Learning Visual Programming	3	3	100	70	20	5	5
4	Elective-III Web Technology XML Web services Advance Java	3	3	100	70	20	5	5
5	Open Elective-I Cyber Law and Ethics Human Resource Development and Organizational Behavior Soft Skills and Interpersonal Communication Low Power Circuits and Systems Advanced Algorithms Graph Theory	3	3	100	70	20	5	5
	PRACTICAL							
6	Compiler Design	2	4	50	35	5	5	5
7	Computer Networks	2	4	50	35	5	5	5
	TOTAL	**19**	**23**	**600**	**420**	**100**	**55**	**40**

SEMESTER VII

S.No	Name of the Subject	Credit	Contact Hours Per Week	Total Marks	End Term Theory/ Practical Exam	Mid Term Theory/ Practical Exam	CIA	Attendance
1	Elective-IV Cryptography & Network Security Robotics and Robot Application Human Computer Interaction Introduction to communication Systems	3	3	100	70	20	5	5
2	Elective-V Real Time Systems Wireless & mobile communication Distributed Database Parallel Computing Advance Computer Architecture	3	3	100	70	20	5	5
3	Open Elective-II Fault Tolerant Computing Computer Graphics Electronic Design Automation Cloud Computing E-commerce and ERP Signals and systems	3	3	100	70	20	5	5
4	Biology	3	3	100	70	20	5	5
	PRACTICAL							
5	Industrial Training	2	4	50	35	15		
5	Project-I (Minor Project)	6	12	100	70	20	5	5
	TOTAL	**18**	**24**	**450**	**315**	**80**	**30**	**25**

SEMESTER VIII

S.No	Name of the Subject	Credit	Contact Hours Per Week	Total Marks	End Term Theory/ Practical Exam	Mid Term Theory/ Practical Exam	CIA	Attendance
1	Elective-VI Natural Language Processing Pattern Recognition Genetic Algorithm Multimedia Technology and its Application Computer Graphics Optimization Theory	3	3	100	70	20	5	5
2	Elective-VII Digital Image Processing Digital Signal Processing Speech and Natural Language	3	3	100	70	20	5	5
3	Open Elective-III Cyber security Internet, Intranet Engineering Soft Computing Economic Policies in India Open Elective-III 3.e.History of Science VLSI System Design Non-Conventional Manufacturing	3	3	100	70	20	5	5
	PRACTICAL							
4	Project-II (Major Project)	6	12	100	70	20	5	5
	TOTAL	**15**	**21**	**350**	**245**	**60**	**25**	**20**