

NIT SCHEME
COURSE OF STUDY AND SCHEME OF EXAMINATION OF B.TECH./B.ARCH./M.TECH/M.C.A.
NATIONAL INSTITUTE OF TECHNOLOGY OF RAIPUR

Branch:- **Master of Computer Applications (M.C.A.)**
Semester:- **Ist Sem.**

Course:- **P.G.**

S. No.	Board of Study	Subject Code	Subject Name	Period Per Week			Scheme of Examination			Total Marks	Credit [L+(T+P)/2]
				L	T	P	ESE	CT	TA		
1.	MASTER OF COMP. APP.	CA40111(CA)	Foundation of Information Technology	4	1	0	100	20	20	140	5
2.	MATHS	MA40112(CA)	Mathematical Foundation of Computer Science	4	1	0	100	20	20	140	5
3.	MASTER OF COMP. APP.	CA40113(CA)	Programming & Problem Solving in C	4	1	0	100	20	20	140	5
4.	MASTER OF COMP. APP.	CA40114(CA)	Computer Organization & Architecture	4	1	0	100	20	20	140	5
5.	HUMANITITES & SOCIAL SCIENCES	HS40115(CA)	Professional Communication in English	4	1	0	100	20	20	140	5
6.	MASTER OF COMP. APP.	CA40121(CA)	Programming Lab in C	0	0	6	75	-	50	125	3
7.	MASTER OF COMP. APP.	CA40122(CA)	Information Technology Lab	0	0	6	75	-	50	125	3
8.	HUMANITITES & SOCIAL SCIENCES	HS40123(CA)	Professional Communication in English Lab	0	0	2	-	-	50	50	1
Total				20	5	14	650	100	250	1000	32

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Branch:- **Master of Computer Applications (M.C.A.)**
Semester:- **IInd Sem.**

Course:- **P.G.**

S. No.	Board of Study	Subject Code	Subject Name	Period Per Week			Scheme of Examination			Total Marks	Credit [L+(T+P)/2]
				L	T	P	ESE	CT	TA		
1.	MASTER OF COMP. APP.	CA40211(CA)	Operating Systems	4	1	0	100	20	20	140	5
2.	MASTER OF COMP. APP.	CA40212(CA)	Data Base Management Systems	4	1	0	100	20	20	140	5
3.	MASTER OF COMP. APP.	CA40213(CA)	Data Structure	4	1	0	100	20	20	140	5
4.	MATHS	MA40214(CA)	Computer Oriented Numerical Analysis	4	1	0	100	20	20	140	5
5.	HUMANITITES & SOCIAL SCIENCES	HS40215(CA)	Oral & Written Communication	4	1	0	100	20	20	140	5
6.	MASTER OF COMP. APP.	CA40221(CA)	Programming Laboratory in RDBMS	0	0	6	75	-	50	125	3
7.	MASTER OF COMP. APP.	CA40222(CA)	Data Structure Lab	0	0	6	75	-	50	125	3
8.	HUMANITITES & SOCIAL SCIENCES	HS40223(CA)	Oral & Written Communication & Group Discussion Lab	0	0	2	-	-	50	50	1
			Total	20	5	14	650	100	250	1000	32

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NATIONAL INSTITUTE OF TECHNOLOGY OF RAIPUR

Branch:- **Master of Computer Applications (M.C.A.)**
Semester:- **IIIrd Sem.**

Course:- **P.G.**

S. No.	Board of Study	Subject Code	Subject Name	Period Per Week			Scheme of Examination			Total Marks	Credit [L+(T+P)/2]
				L	T	P	ESE	CT	TA		
1.	MASTER OF COMP. APP.	CA40311(CA)	Computer Networks and Communication	4	1	0	100	20	20	140	5
2.	MATHS	MA40312(CA)	Computer Oriented Optimization	4	1	0	100	20	20	140	5
3.	MASTER OF COMP. APP.	CA40313(CA)	Formal Language & Automata Theory	4	1	0	100	20	20	140	5
4.	MASTER OF COMP. APP.	CA40314(CA)	Unix Operating System & Shell Programming	4	1	0	100	20	20	140	5
5.	MASTER OF COMP. APP.	CA40315(CA)	Object Oriented Analysis, Design & C++	4	1	0	100	20	20	140	5
6.	MASTER OF COMP. APP.	CA40321(CA)	Unix Lab	0	0	6	75	-	50	125	3
7.	MASTER OF COMP. APP.	CA40322(CA)	Programming Lab in C++	0	0	6	75	-	50	125	3
8.	HUMANITITES & SOCIAL SCIENCES	HS40323(CA)	Personality Development Lab	0	0	2	-	-	50	50	1
Total				20	5	14	650	100	250	1000	32

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NATIONAL INSTITUTE OF TECHNOLOGY OF RAIPUR

Branch:- **Master of Computer Applications (M.C.A.)**
Semester:- **IVth Sem.**

Course:- **P.G.**

S. No.	Board of Study	Subject Code	Subject Name	Period Per Week			Scheme of Examination			Total Marks	Credit [L+(T+P)/2]
				L	T	P	ESE	CT	TA		
1.	MASTER OF COMP. APP.	CA40411(CA)	Artificial Intelligence & Expert System	4	1	0	100	20	20	140	5
2.	MATHS	MA40412(CA)	Statistical Computing	4	1	0	100	20	20	140	5
3.	MASTER OF COMP. APP.	CA40413(CA)	Principles of Compiler Design	4	1	0	100	20	20	140	5
4.	MASTER OF COMP. APP.	CA40414(CA)	Software Engineering	4	1	0	100	20	20	140	5
5.	MASTER OF COMP. APP.	CA40415(CA)	Computer Graphics & Multimedia	4	1	0	100	20	20	140	5
6.	MASTER OF COMP. APP.	CA40421(CA)	Artificial Intelligence Lab	0	0	4	50	-	25	75	2
7.	MASTER OF COMP. APP.	CA40422(CA)	Computer Graphics Lab	0	0	4	50	-	25	75	2
8.	MASTER OF COMP. APP.	CA40423(CA)	Project Lab – I	0	0	4	50	-	50	100	2
9.	HUMANITITES & SOCIAL SCIENCES	HS40424(CA)	Report Writing & Seminar	0	0	2	-	-	50	50	1
			Total	20	5	14	650	100	250	1000	32

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Branch:- **Master of Computer Applications (M.C.A.)**
Semester:- **Vth Sem.**

Course:- **P.G.**

S. No.	Board of Study	Subject Code	Subject Name	Period Per Week			Scheme of Examination			Total Marks	Credit [L+(T+P)/2]
				L	T	P	ESE	CT	TA		
1.	MASTER OF COMP. APP.	CA40511(CA)	Advance Programming in Java	4	1	0	100	20	20	140	5
2.	MASTER OF COMP. APP.	CA40512(CA)	Distributed Computer Systems	4	1	0	100	20	20	140	5
3.	MASTER OF COMP. APP.	CA40513(CA)	Mobile Computing	4	1	0	100	20	20	140	5
4.	MASTER OF COMP. APP.	Refer Elective- I	Elective – I	4	1	0	100	20	20	140	5
5.	MASTER OF COMP. APP.	Refer Elective- II	Elective – II	4	1	0	100	20	20	140	5
6.	MASTER OF COMP. APP.	CA40521(CA)	Java Programming Lab	0	0	6	75	-	50	125	3
7.	MASTER OF COMP. APP.	CA40522(CA)	Project Lab - II	0	0	6	75	-	50	125	3
8.	HUMANITITES & SOCIAL SCIENCES	HS40523(CA)	Interview Preparation, Presentation Lab	0	0	2	-	-	50	50	1
Total				20	5	14	650	100	250	1000	32

Note (1)- 1/2 of total strength of students subject to Minimum Strength of thirty students is required to offer an elective in the institute in a particular academic session.

Note (2) - Choice of elective course once made for an examination cannot be changed for future examination.

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Semester:- **Vth Sem.**

Course:- **P.G.**

Elective –I

CA40531(CA) - Neural Network & Fuzzy Logic
CA40532(CA) - Network Programming
CA40533(CA) - Modeling & Simulation
CA40534(CA) - Data Warehousing and Mining
CA40535(CA) - Management Information Systems
CA40536(CA) - Parallel Processing

Elective -II

CA40541(CA) - Enterprise Resource Planning
CA40542(CA) - Cryptography & Network security
CA40543(CA) - Analysis and Design of Algorithm
CA40544(CA) - Software Project Management
CA40545(CA) - Digital Image Processing
CA40546(CA) - Research Methodology and Computer Applications

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Semester:- **VIth Sem.**

Course:- **P.G.**

S. No.	Board of Studies	Subject Code	Subject	Scheme of Exam					Total Marks	Credit L+(T+P)/2
				Theory / Practical						
				L	T	P	ESE	TA		
1	MASTER OF COMP. APP.	CA40621(CA)	Project	4	-	32	300	-	300	20
2	MASTER OF COMP. APP.	CA40622(CA)	Seminar on Project	-	-	4	-	200	200	2
			TOTAL	4	-	36	300	200	500	22

- The work done by the students should be worthy enough to prove the duration of computer applications project as six months.
- The certificate of the company must specify the duration of at least 5 months.
- The Project should be based on application of technical knowledge for attempting to solve live problems.
- Students undergone for project have to send the confirmation letter from the company within 15 days of joining.
This letter will consist of information regarding Company name, Guide Name, Project Title, Project start date etc.
- Progress report for every month should be sent to the department during 6 months of Project work
- The students will have to deliver a very formal seminar in the form of Power Point Presentation and 2 copies of Project Report are to be submitted.
- Preferably independent work should be carried out by each student.

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S.No.	Semester	Max. Marks
1.	I st	1000
2.	II nd	1000
3.	III rd	1000
4.	IV th	1000
5.	V th	1000
6.	VI th	500
Total		5500
