



**DEPARTMENT OF INFORMATION TECHNOLOGY**  
**Scheme (Third Year)**

National Institute of Technology Raipur												
Course of Study and Scheme of Examination							B. Tech. 5th Semester				Branch: IT	
S. No.	Subject Code	Subject Name	Periods per Week			TA	Examination Scheme				Total Marks	Credits
			L	T	P		MSE/MTR		ESE/ESVE			
							Theory	Prac.	Theory	Prac.		
1	Program Core (IT105101IT)	Design Analysis of Algorithms	3	1	0	20	30		50		100	4
2	Program Core (IT105102IT)	Computer Networks	3	1	0	20	30		50		100	4
3	Program Core (IT105103IT)	Data Mining	3	1	0	20	30		50		100	4
4	Program Elective (IT1052XXIT)	Program Elective – I (Reference Table 1)	3	0	0	20	30		50		100	3
5	Open Elective (IT1053XXIT)	Open Elective - I (Reference Table 2)	3	0	0	20	30		50		100	3
6	Laboratory (IT105401IT)	Design Analysis of Algorithms Lab	0	0	2	40		20		40	100	1
7	Laboratory (IT105402IT)	Computer Networks Lab	0	0	2	40		20		40	100	1
8	Internship (IT105701IT)	Summer Internship I	0	0	2	40		20		40	100	1
												21

S. No.	Subject Code	Subject Name
1	IT105201IT	Information Theory and Coding
2	IT105202IT	Digital Signal Processing
3	IT105203IT	Microprocessor

S. No.	Subject Code	Subject Name
1	IT105301IT	Digital Image Processing
2	IT105302IT	Advance Computer Architecture
3	IT105303IT	E- Business



## Department of Information Technology

Updated Schemes of B.Tech. Programme as per 49<sup>th</sup> Senate

### B.Tech (IT) 6<sup>th</sup> Semester

National Institute of Technology Raipur (Dept of Information Technology)												
Course of Study and Scheme of Examination							B. Tech. 6th Semester				Branch:IT	
S. No.	Subject Code	Subject Name	Periods per Week			TA	Examination Scheme				Total Marks	Credits
			L	T	P		MSE/MTR		ESE/ESVE			
							Theory	Prac.	Theory	Prac.		
1	IT106101IT	Compiler Design	3	1	0	20	30	-	50	-	100	4
2	IT106102IT	Artificial Intelligence	3	1	0	20	30	-	50	-	100	4
3	IT106103IT	Computer Graphics	3	1	0	20	30	-	50	-	100	4
4	<b>Program Elective (EXX2)</b>		3	0	0	20	30	-	50	-	100	3
5	<b>Program Elective (EXX3)</b>		3	0	0	20	30	-	50	-	100	3
6	<b>Open Elective (OXX2)</b>		3	0	0	20	30	-	50	-	100	3
7	IT106401IT	Artificial Intelligence lab	0	0	2	40	-	20	-	40	100	1
8	IT106402IT	Computer Graphics Lab	0	0	2	40	-	20	-	40	100	1
											23	

<b>Subject Code</b>	<b>Program Elective (EXX2)</b>
IT106201IT	Cryptography and Network Security
IT106202IT	Process Mining
IT106203IT	Cyber Law
IT106204IT	Cloud and IoT Security
<b>Subject Code</b>	<b>Program Elective (EXX3)</b>
IT106205IT	Cellular Mobile Computing
IT106206IT	Quantum Computing
IT106207IT	Advanced Database Management System
IT106208IT	Secure Coding
<b>Subject Code</b>	<b>Open Elective (OXX2)</b>
IT106301IT	Machine Learning
IT106302IT	Graph Theory
IT106303IT	Computational Geometry
IT106304IT	Data Science and Analytics



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**Department of Information Technology**

Updated Schemes of B.Tech. Programme as per 49<sup>th</sup> Senate

**B.Tech (IT) 7<sup>th</sup> Semester**

<b>National Institute of Technology Raipur (Dept of Information Technology)</b>												
<b>Course of Study and Scheme of Examination</b>						<b>B. Tech. 7th Semester</b>				<b>Branch: IT</b>		
<b>S. No.</b>	<b>Subject Code</b>	<b>Subject Name</b>	<b>Periods per Week</b>			<b>TA</b>	<b>Examination Scheme</b>				<b>Total Marks</b>	<b>Credits</b>
			<b>L</b>	<b>T</b>	<b>P</b>		<b>MSE/MTR</b>		<b>ESE/ESVE</b>			
							<b>Theory</b>	<b>Prac.</b>	<b>Theory</b>	<b>Prac.</b>		
1	IT107101IT	Internet of Things	3	1	0	20	30	-	50	-	100	4
2	IT107102IT	Distributed Systems	3	1	0	20	30	-	50	-	100	4
3	Program Elective (EXX4)		3	0	0	20	30	-	50	-	100	3
4	Program Elective (EXX5)		3	0	0	20	30	-	50	-	100	3
5	Open Elective (OXX3)		3	0	0	20	30	-	50	-	100	3
6	IT107501IT	Project-I	0	0	6	40		20		40	100	3
7	IT107401IT	Internet of Things Lab	0	0	2	40	-	20	-	40	100	1
8	IT107701IT	Summer Internship II	0	0	2	40	-	20	-	40	100	2
<b>Total Credits =</b>											<b>23</b>	

<b>Subject Code</b>	<b>Program Elective (EXX4)</b>
IT107201IT	Text Mining
IT107202IT	Adhoc and Sensor Network
IT107203IT	Software Testing
IT107204IT	Cyber Forensics and Audits
<b>Subject Code</b>	<b>Program Elective (EXX5)</b>
IT107205IT	Quantum Machine Learning
IT107206IT	Information Retrieval
IT107207IT	Bioinformatics
IT107208IT	Secure Software Engineering
<b>Subject Code</b>	<b>Open Elective (OXX3)</b>
IT107301IT	Neural Network and Fuzzy Logic
IT107302IT	Human Computer Interaction & Design
IT107303IT	Computer Vision



**Department of Information Technology**

Updated Schemes of B.Tech. Programme as per 49<sup>th</sup> Senate

**B.Tech (IT) 8<sup>th</sup> Semester**

<b>National Institute of Technology Raipur (Dept of Information Technology)</b>												
<b>Course of Study and Scheme of Examination</b>							<b>B. Tech. 8th Semester</b>				<b>Branch:IT</b>	
<b>S. No.</b>	<b>Subject Code</b>	<b>Subject Name</b>	<b>Periods per Week</b>			<b>TA</b>	<b>Examination Scheme</b>				<b>Total Marks</b>	<b>Credits</b>
			<b>L</b>	<b>T</b>	<b>P</b>		<b>MSE/MTR</b>		<b>ESE/ESVE</b>			
							<b>Theory</b>	<b>Prac.</b>	<b>Theory</b>	<b>Prac.</b>		
1	<b>Open Elective (OXX4)</b>		3	0	0	20	30	-	50	-	100	3
2	<b>Open Elective (OXX5)</b>		3	0	0	20	30	-	50	-	100	3
3	IT108501IT	Project-II	0	0	8	40		20		40	100	4
	IT108701IT	Major Internship *										4(^3+1^^)
<b>Total Credits =</b>												<b>10</b>

\* For semester long internship as per clause number 4.E.6 of CBCS B.Tech Ordinance.

^- Report submission, end semester presentation and viva.

^^-- Mid semester examination (viva/presentation)

<b>Subject Code</b>	<b>Open Elective (OXX4)</b>
IT108301IT	Blockchain
IT108302IT	Cloud Computing
IT108303IT	Medical Imaging
IT108304IT	High Performance Computing
<b>Subject Code</b>	<b>Open Elective (OXX5)</b>
IT108305IT	5G Network
IT108306IT	Deep Learning
IT108307IT	Pattern Recognition
IT108308IT	Decision Support System