Maulana Azad National Institute of Technology, Bhopal - 462003
SCHEME FOR B.TECH. & Dual Degree (First Year Only)
Proposed

First Semester
(Section A, B, C, D & E)/ (Section F, G, H, I & J)

Course Code	Course Name	Periods per week			Credits
		L	T	P	
MTH 24101	Mathematics1	3	1	-	4
PHY 24102/ CHY 24107	Physics/ Engineering Chemistry	3	-	-	3
CE 24103/ EE 24108	Engineering Mechanics/ Basic Electrical & Electronics Engineering	3	1	-	4
ME 24104/ ME24109	Engineering Graphics/ Manufacturing Science	1	-	-	1
CSE 24105/ CHY 24110	Computer Programming & Problem Solving/ Environmental Science	2	-	-	2
HUM 24106/ BSE 24111	Communication Skill/ Biology for Engineers	1/2	-	-	1/2
CE 24121/ EE 24125	Engineering Mechanics/ Basic Electrical & Electronics Engineering	-	-	2	1
PHY 24122/ CHY 24126	Physics/ Engineering Chemistry Laboratory	-	-	2	1
ME 24123/ ME 24127	Engineering Graphics/ Manufacturing Science Laboratory	-	-	2	1
CSE 24124/ HUM 24128	Computer Programming/ Language Laboratory	-	-	2	1
SAS 24141/ SAS 24142	(Life Skill Management/ Physical)/ (NSS/ Yoga)	-	-	2	1
Total Hours = 25/ 26		**13/ 14**	**2**	**10**	**20/ 21**
NCC 24151	National Cadet Corps I	1	1	-	2

Maulana Azad National Institute of Technology, Bhopal - 462003
SCHEME FOR B.TECH. & Dual Degree

Second Semester
(Section A, B, C, D & E)/ (Section F, G, H, I & J)

Course Code	Course Name	Periods per week			Credits
		L	T	P	
MTH 24102	Mathematics II	3	1	-	4
CHY 24107/ PHY 24102	Engineering Chemistry/ Physics	3	-	-	3
EE 24108/ CE 24103	Basic Electrical & Electronics Engineering/ Engineering Mechanics	3	1	-	4
ME 24109/ ME 24104	Manufacturing Science/ Engineering Graphics	1	-	-	1
CHY 24110/ CSE 24105	Environmental Science Computer/ Programming& Problem Solving	2	-	-	2
BSE 24111/ HUM 24106	Biology for Engineers/ Communication Skill	2/1	-	-	2/1
CHY 24125/ PHY 24121	Engineering Chemistry/ Physics Laboratory	-	-	2	1
EE 24126/ CE 24122	Basic Electrical & Electronics Engineering/ Mechanics Laboratory	-	-	2	1
ME 24127/ ME 24123	Manufacturing Science Engineering/ Graphics Laboratory	-	-	2	1
HUM 24128/ CSE 24124	Language Laboratory/ Computer Programming	-	-	2	1
SAS 24143/ SAS 24144	(NSS/ Yoga)/ (Life Skill Management/ Physical)	-	-	2	1
Total Hours = 26/ 25		**14/ 13**	**2**	**10**	**21/ 20**
NCC 24151	National Cadet Corps I	**1**	**1**	**-**	**2**

Maulana Azad National Institute of Technology, Bhopal - 462003

SCHEME FOR B.TECH.
(2024 admitted batch onwards)
THIRD SEMESTER

First Year Credits (Cumulative) 41

(Computer Science and Engineering)

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	T	P	
CSE 24231	Discrete Mathematics	3	1	-	4
ME 24252	Fundamental of Design Methods	3	-	-	3
CSE 24211	Data Structures	3	-	-	3
CSE 24212	Data Base Management Systems	3	-	-	3
CSE 24213	Principles of Programming Languages	3	-	-	3
CSE 24214	Digital Circuit Design	3	-	-	3
CSE 24215	Data Structures Lab	-	-	2	1
CSE 24216	Data Base Management Systems Lab	-	-	2	1
CSE 24217	Principles of Programming Languages Lab	-	-	2	1
CSE 24218	Professional Practices	-	2	-	2
CSE 24212	Minor-1 (Data Base Management Systems*)	3	-	-	3*
CSE 2421x*	Floating tutorial	-	2	-	-
Total Hours = 26		**18**	**2**	**6**	**24**
Total Credits (Cumulative)					**65**
Additional Subject:- National Cadet Corps (NCC)					
NCC 24251	National Cadet Corps III	1	5	1	7
Total Credits (Cumulative)					**11**

* Same as one of the CSE theory subject (will be fixed during the semester)

Maulana Azad National Institute of Technology, Bhopal - 462003

SCHEME FOR B.TECH.
(2024 admitted batch onwards)

FOURTHS EMESTER
(Computer Science and Engineering)

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	**T**	**P**	
HUM 24251	Fundamentals of Entrepreneurship	3	-	-	3
CSE 24221	Software Engineering	3	-	-	3
CSE 24222	Computer System Organization	3	-	-	3
CSE 24223	Theory of Computation	3	-	-	3
CSE 24224	Data Communication	3	-	-	3
CSE 24225	Algorithm Design & Analysis	3	-	-	3
CSE 24226	Algorithm Design & Analysis Lab	-	-	2	1
CSE 24227	Digital Circuit Design & Computer System Organization Lab	-	-	2	1
CSE 24228	Project Phase 1	-	-	4	2
CSE 24222	Minor-2 (Computer System Organization*)	3	-	-	3*
CSE 2422x*	Floating tutorial	-	2	-	-
Total Hours = 28		**18**	**2**	**8**	**22**
Total Credits (Cumulative)					**87**
Additional Subject:-National Cadet Corps (NCC)					
NCC 24252	National Cadet Corps IV	2	-	1	3
Total Credits (Cumulative)					**14**

* Same as one of the CSE theory subject (will be fixed during the semester)

Maulana Azad National Institute of Technology, Bhopal - 462003

SCHEME FOR B.TECH.
(2024 admitted batch onwards)

FIFTH SEMESTER
(Computer Science and Engineering)

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	**T**	**P**	
CSE 24310	Artificial Intelligence	3	-	-	3
CSE 24311	Data Warehousing & Mining	3	-	-	3
CSE 24312	Operating Systems	3	-	-	3
CSE 24313	Statistical Models for Data Interpretation and Analysis	3	-	-	3
CSE 24314	Computer Networks	3	-	-	3
CSE 24xxx#	Departmental Elective–1(A)	3	-	-	3
CSE 24315	Artificial Intelligence and Data Warehousing & Mining Lab	-	-	2	1
CSE 24316	Operating Systems Lab	-	-	2	1
CSE 24317	Computer Networks Lab	-	-	2	1
CSE 24318	Internship/ Industrial Training	-	-	-	1
CSE 24313	Minor-3 (Operating Systems*)	3	-	-	3*
CSE 24319	Project Phase 2	-	-	4	2
CSE 2431x*	Floating tutorial	-	2	-	-
Total Hours = 27		**15**	**2**	**10**	**24**
Total Credits (Cumulative)					**111**
Additional Subject:- National Cadet Corps (NCC)					
NCC 24351	National Cadet Corps V	**1**	**5**	**1**	**7**
Total Credits (Cumulative)					**21**

* Same as one of the CSE theory subject (will be fixed during the semester)

Based on student's selection of subject

Maulana Azad National Institute of Technology, Bhopal - 462003

SCHEME FOR B.TECH.
(2024 admitted batch onwards)

SIXTH SEMESTER
(Computer Science and Engineering)

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	T	P	
ME 24351	Engineering Management	3	-	-	3
CSE 24321	Network & System Securities	3	-	-	3
CSE 24322	Compiler Design	3	-	-	3
CSE 24323	Machine Learning	3	-	-	3
CSE 24xxx#	Departmental Elective–2(A)	3	-	-	3
CSE 24324	Machine Learning lab	-	-	2	1
CSE 24325	Compiler Design lab	-	-	2	1
CSE 24326	Network & System Securities Lab	-	-	2	1
CSE 24327	Project Phase 3	-	-	4	2
CSE 24323	Minor-4 (Machine Learning *)	3	-	-	3*
CSE 2432x*	Floating tutorial	-	2	-	-
Total Hours = 27		**15**	**2**	**10**	**20**
	Total Credits (Cumulative)				131
Additional Subject:- National Cadet Corps (NCC)					
NCC 24351	National Cadet Corps VI	2	-	1	3
	Total Credits (Cumulative)				**24**

* Same as one of the CSE theory subject (will be fixed during the semester)

\# Based on student's selection of subject

Maulana Azad National Institute of Technology, Bhopal - 462003

SCHEME FORB.TECH.
(2024 admitted batch onwards)

SEVENTH SEMESTER
(Computer Science and Engineering)

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	**T**	**P**	
HUM 24451	Engineering Economics and IPR	3	-	-	3
CSE 24411	Computer Vision & Image Processing	3	-	-	3
CSE 24xxx#	Programme Elective-3(A)	3	-	-	3
CSE 24xxx#	Programme Elective-4(A)	3	-	-	3
xxx 24xxx#	Open Elective-1(C)	3	-	-	3
CSE 24412	Computer Vision & Image Processing Lab	-	-	2	1
CSE 24413	Project Phase 4	-	-	4	2
CSE 24414	Industrial/ Field Training	-	-	2	1
CSE 24xxx$	Minor-5 (Computer Vision & Image Processing / PE-3(A)/ PE-4(A))	3	-	-	3*
CSE 2441x*	Floating tutorial	-	2	-	-
Total Hours = 23		**15**	**2**	**8**	**19**
Total Credits (Cumulative)					**150**

* Same as one of the CSE theory subject (will be fixed during the semester)

\# Based on student's selection of subject

$ Will be decided by the deptt. during the semester

Maulana Azad National Institute of Technology, Bhopal - 462003

SCHEME FOR B.TECH.
(2024 admitted batch onwards)

EIGHTH SEMESTER
(Computer Science and Engineering)

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	**T**	**P**	
xxxxx#	Programme Elective-5(A) (NPTEL/SWAYAM Courses Only)	3	-	-	3
xxxxx#	Programme Elective-6(A) (NPTEL/SWAYAM Courses Only)	3	-	-	3
CSE 24421	Internship / Project Phase 5	-	-	16	8
CSE 24422	General Proficiency	-	-	-	1
Total Hours = 22		**6**	**-**	**16**	**15**
Total Credits (Cumulative)					**165**

Based on student's selection of NPTEL/SWAYAM Courses offered by the department

Maulana Azad National Institute of Technology, Bhopal - 462003

List of Programme Electives (Group – A)
For III year [1(A) & 2(A)]
(Computer Science and Engineering)

S. No.	Subject Code	Subject Name
1	CSE 24351	Advanced Computer Architecture
2	CSE 24352	Computer Graphics
3	CSE 24353	UNIX Internals & Shell Programming
4	CSE 24354	Randomized Algorithms
5	CSE 24355	Object-Oriented Design & Modelling
6	CSE 24356	Cybercrime and Information Warfare
7	CSE 24357	Advanced Data Structures
8	CSE 24358	Data Science
9	CSE 24359	Cryptography

For IV year [3(A), 4(A), 5(A) & 6(A)]

S. No.	Subject Code	Subject Name
1.	CSE 24451	Parallel Algorithms
2.	CSE 24452	Ethical Hacking
3.	CSE 24453	Big Data Technologies
4.	CSE 24454	Internet of Things
5.	CSE 24455	Web Search and IR
6.	CSE 24456	TCP/IP and Web Technology
7.	CSE 24457	Computer Vision
8.	CSE 24458	Mobile Computing
9.	CSE 24459	Information Theory & Coding
10.	CSE 24460	Distributed System
11.	CSE 24461	High Performance Computing
12.	CSE 24462	Embedded Systems
13.	CSE 24463	Natural Language Processing
14.	CSE 24464	Quantum Computing
15.	CSE 24465	Optimization Techniques
16.	CSE 24466	Software Testing
17.	CSE 24467	Wireless Networks
18.	CSE 24468	Biometrics
19.	XXXXXXXX	NPTEL / SWAYAM Courses offered by the department