



**Rashtrasant Tukadoji Maharaj Nagpur University**

**Scheme of Absorption for  
B. Tech (Chemical Technology)**

**Board of Studies, Chemical Technology**

*Monday*

Scheme of Absorption for Semester Pattern of 1 <sup>st</sup> Semester B. Tech. Chemical Technology from CBS to CBCS Scheme								
As Per Rashtrasant Tukadoji Maharaj Nagpur University CBS Pattern					As Per Rashtrasant Tukadoji Maharaj Nagpur University CBCS Pattern			
FIRST SEMESTER B. TECH (CHEMICAL TECHNOLOGY)					FIRST SEMESTER B. TECH (CHEMICAL TECHNOLOGY)			
Sr. No.	Sub Code Theory/ Practical		Subject	Theory/ Practical	Sub Code Theory/ Practical	Board	Subject	Theory/ Practical
1	CT (BGE) 1.01		Engineering Mathematics I	Theory	CT-BS-101T	BGE	Maths I	Theory
2	CT (BGE) 1.02		Applied Physical Chemistry	Theory	CT-BS-104 T	BGE	Fundamentals of Reaction Mechanism	Theory
3	CT (BGE) 1.03		Applied Inorganic Chemistry	Theory	CT-BS-103T	BGE	Chemistry-I	Theory
4	CT (BGE) 1.04		Applied Physics I	Theory	CT-BS-102T	BGE	Physics	Theory
5	CT (BGE) 1.05		Basic Mechanical Technology	Theory	CT-GES-105 T	BGE	Electrical & Electronics Engineering	Theory
6	CT (BGE) 1.06		Ethical Science	Theory	CT-HSMC-HS-207 T	BGE	HASS-I: (Communication Skill/English)	Theory
7	CT (BGE) 1.07		Applied Physical Chemistry Laboratory	Practical	CT-BS-108 P	BGE	Fundamentals of Reaction Mechanism Laboratory	Practical
8	CT (BGE) 1.08		Applied Inorganic Chemistry Laboratory	Practical	CT-BS-107 P	BGE	Chemistry I Laboratory	Practical
9	CT (BGE) 1.09		Applied Physics I Laboratory	Practical	CT-BS-106 P	BGE	Physics Laboratory	Practical
10	CT (BGE) 1.10		Workshop	Practical	CT-GES-110P	BGE	Engineering Graphics	Practical
11	CT (BGE) 1.11		Computational Skills	Practical	CT-GES-109P	BGE	Electrical & Electronics Engineering Laboratory	Practical
12			NCC/NSS		--	--	--	--

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Scheme of Absorption for Semester Pattern of 2 <sup>nd</sup> Semester B. Tech. Chemical Technology from CBS to CBCS Scheme								
As Per Rashtrasant Tukadoji Maharaj Nagpur University (CBS Pattern)					As Per Rashtrasant Tukadoji Maharaj Nagpur University CBCS Pattern Scheme			
SECOND SEMESTER B. TECH (CHEMICAL TECHNOLOGY)					SECOND SEMESTER B. TECH (CHEMICAL TECHNOLOGY)			
Sr. No.	Sub Code Theory/ Practical	Board	Subject	Theory/ Practical	Sub Code Theory/ Practical	Board	Subject	Theory/ Practical
1	CT (BGE) 2.01	BGE	Engineering Mathematics II	Theory	CT-BS - 201 T	BGE	Maths II	Theory
2	CT (BGE) 2.02	BGE	Applied Organic Chemistry	Theory	CT-BS- 203 T	BGE	Chemistry-II	Theory
3	CT (BGE) 2.03	BGE	Applied Physics II	Theory	CT-BS- 202 T	BGE	Properties of Matter	Theory
4	CT (BGE) 2.04	BGE	Basic Electrical Technology	Theory	CT-GES- 205 T	BGE	Thermodynamics I	Theory
5	CT (BGE) 2.05	BGE	Applied Mechanics	Theory	CT-GES- 206 T	BGE	Engineering & Solid Mechanics	Theory
6	—	—	—	—	CT-HSMC-HS -207 T	BGE	HASS-I: (Communication Skill/English)*	Theory
7	CT (BGE) 2.06	BGE	Communication Skill	Practical	CT-HSMC-HS-212P	BGE	HASS-I: (Communication Skill Laboratory)	Practical
8	—	—	—	—	CT-BS-204T	BGE	Organic Process Technology*	Theory
9	CT (BGE) 2.07	BGE	Applied Organic Chemistry Laboratory	Practical	CT-BS- 209 P	BGE	Chemistry II Laboratory	Practical
10	CT (BGE) 2.08	BGE	Applied Physics II Laboratory	Practical	CT-BS- 208 P	BGE	Properties of Matter Laboratory	Practical
11	CT (BGE) 2.09	BGE	Basic Electrical Technology Laboratory	Practical	CT-GES- 211 P	BGE	Engineering & Solid Mechanics Laboratory	Practical
12	CT (BGE) 2.10	BGE	Engineering Graphics	Practical	CT-BS-210P	BGE	Organic Process Technology Laboratory	Practical

\* Students to appear in university theory examination as per the new scheme.

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Scheme of Absorption for Semester Pattern of 3 <sup>rd</sup> Semester B. Tech. Chemical Technology from CBS to CBCS Scheme					As Per Rashtrasant Tukadoji Maharaj Nagpur University CBCS Pattern Scheme			
As Per Rashtrasant Tukadoji Maharaj Nagpur University (CBS Pattern)					As Per Rashtrasant Tukadoji Maharaj Nagpur University CBCS Pattern Scheme			
THIRD SEMESTER B. TECH (CHEMICAL TECHNOLOGY)					THIRD SEMESTER B. TECH (CHEMICAL TECHNOLOGY)			
Sr. No.	Sub Code Theory/ Practical	Board	Subject	Theory/ Practical	Sub Code Theory/ Practical	Board	Subject	Theory/ Practical
1	BTCHT301T	BCHT	Chemical Process Calculations	Theory	CT-PCC-301T	BCE	Material & Energy Balance Computations	Theory
2	--	--	--	--	CT-PCC-302T	BCE	Particle & Fluid Particle Processing*	Theory
3	BTCHT302T	BGE	Organic Process Technology	Theory	CT-BS-204T	BGE	Organic Process Technology <sup>SS</sup>	Theory
4	BTCHT303T	BGE	Engineering Mathematics-III	Theory	CT-BS-305T	BGE	Maths – III	Theory
5	BTCHT304T	BGE	Electronics & Instrumentation	Theory	CT-GES-105 T	BGE	Electrical & Electronics Engineering*	Theory
6	BTCHT305T	BCHT	#Special Technology I	Theory	CT-GES-304T	BGE	Material Science	Theory
7	--	--	--	--	CT-PCC-303T	BCE	Thermodynamics II*	Theory
8	--	--	--	--	CT-BS-306T	BGE	Elementary Molecular Approach*	Theory
9	BTCHT306P	BGE	Organic Process Technology	Practical	CT-BS-210P	BGE	Organic Process Technology Laboratory <sup>SS</sup>	Practical
10	BTCHT307P	BGE	Electronics & Instrumentation	Practical	CT-GES-109P	BGE	Electrical & Electronics Engineering Laboratory	Practical
11	BTCHT308P	BCHT	#Special Technology I	Practical	CT-GES-307P	BGE	Material Science Laboratory	Practical
12	--	--	--	--	CT-BS-308P	BGE	Elementary Molecular Approach Lab**	Practical
13	--	--	--	--	CT-PCC-309P	BCE	Particle & Fluid Particle Processing Lab**	Practical

\* Students to appear in university theory examination as per the new scheme

\*\* Students to appear in university practical examination as per the new scheme

<sup>SS</sup> Students to appear for these subjects in University Theory/Practical examination offered in 2<sup>nd</sup> Sem B. Tech Chemical Tech (CBCS)

#Food Technology, #Oil Technology, #Petrochemical Technology, #Pulp and Paper Technology, #Plastics and Polymer Technology, #Surface coating Technology

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Scheme of Absorption for Semester Pattern of 4 <sup>th</sup> Semester B. Tech. Chemical Technology from CBS to CBCS Scheme As Per Rashtrasant Tukadoji Maharaj Nagpur University (CBS Pattern)					As Per Rashtrasant Tukadoji Maharaj Nagpur University CBCS Pattern Scheme			
FOURTH SEMESTER B. TECH (CHEMICAL TECHNOLOGY)					FOURTH SEMESTER B. TECH (CHEMICAL TECHNOLOGY)			
Sr. No.	Sub Code Theory/ Practical	Board	Subject	Theory/ Practical	Sub Code Theory/ Practical	Board	Subject	Theory/ Practical
1	BTCHT401T	BGE	Strength of Materials	Theory	CT-PCC-403T	BCE	Fluid Mechanics	Theory
2	BTCHT402T	BGE	Applied Physical Chemistry II	Theory	CT-BS- 203 T	BGE	Chemistry-II <sup>55</sup>	Theory
3	BTCHT403T	BGE	Numerical Methods& Computer Programming	Theory	CT-PCC-404T	BCE	Numerical Methods in Chemical Engineering	Theory
4	BTCHT404T	BGE	Inorganic Process Technology	Theory	CT-BS-405T	BGE	Inorganic Process Technology	Theory
5	BTCHT405T	BCHT	#Special Technology II	Theory	CT-CS-402T	BCHT	#Special Technology I	Theory
6	--	--	--	--	CT-PCC-401T	BCE	Process Technology & Economics	Theory
7	BTCHT406P	BGE	Numerical Methods& Computer Programming	Practical	CT-PCC-408P	BCE	Numerical Methods in Chemical Engineering Laboratory	Practical
8	BTCHT407P	BGE	Inorganic Process Technology	Practical	CT-BS-409P	BGE	Inorganic Process Technology Lab	Practical
9	BTCHT408P	BGE	Machine Drawing	Practical	CT-GES-410P	BGE	Engineering Workshop	Practical
10	BTCHT 409P	BGE	Applied Physical Chemistry II	Practical	CT-BS- 209 P	BGE	Chemistry II Laboratory <sup>55</sup>	Practical
11	--	--	--	--	CT-HSMC-HS-406T	BGE	HASS II Functional English <sup>55</sup>	Theory
12	--	--	--	--	CT-PCC-407P	BCE	Fluid Mechanics Lab <sup>55</sup>	Practical
13	--	--	--	--	MC	BCE	Environmental Science <sup>*</sup>	Audit Course (S/SF)

\* Students to appear in university theory examination as per the new scheme

\*\* Students to appear in university practical examination as per the new scheme

<sup>55</sup> Students to appear for these subjects in University Theory/Practical examination offered in any of the previous semester of B. Tech Chemical Tech (CBCS)

#Food Technology, #Oil Technology, #Petrochemical Technology, #Pulp and Paper Technology, #Plastics and Polymer Technology, #Surface coating Technology

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Scheme of Absorption for Semester Pattern of 5 <sup>th</sup> Semester B. Tech. Chemical Technology from CBS to CBCS Scheme								
As Per Rashtrasant Tukadoji Maharaj Nagpur University (CBS Pattern)					As Per Rashtrasant Tukadoji Maharaj Nagpur University CBCS Pattern Scheme			
FIFTH SEMESTER B. TECH (CHEMICAL TECHNOLOGY)					FIFTH SEMESTER B. TECH (CHEMICAL TECHNOLOGY)			
Sr. No.	Sub Code Theory/ Practical	Board	Subject	Theory/ Practical	Sub Code Theory/ Practical	Board	Subject	Theory/ Practical
1	BTCHT501T	BCHT	Fluid Flow Operation	Theory	CT-PCC-403T	BCE	Fluid Mechanics <sup>55</sup>	Theory
2	BTCHT502T	BCHT	Solid Fluid Operations	Theory	CT-PCC-302T	BCE	Particle & Fluid Particle Processing <sup>55</sup>	Theory
3	BTCHT503T	BCHT	Chemical Equipment Design	Theory	CT-PCC-502T	BCE	Chemical Reaction Engineering I	Theory
4	BTCHT 504T	BGE	Process Plant Utilities	Theory	CT-PCC-501T	BCE	Heat Transfer	Theory
5	BTCHT505T	BCHT	#Special Technology- III	Theory	CT-CS-504T	BCHT	#Special Technology II	
6	--	--	--	--	CT-PCC-503T	BCE	Mass Transfer I	Theory
7	--	--	--	--	CT-OEL-505T	BCE	Open Elective I <sup>1</sup> (Any one: Environmental Pollution & Control/ Renewable Energy/ Energy Conservation & Recycling)	Theory
8	--	--	--	--	CT-HSMC-HS - 506T	BCE	HASS III: Industrial Economics & Project Management	Theory
9	BTCHT506P	BCHT	Fluid Flow Operation	Practical	CT-PCC-407P	BCE	Fluid Mechanics Lab <sup>55</sup>	Practical
10	BTCHT507P	BCHT	Solid Fluid Operations	Practical	CT-PCC-309P	BCE	Particle & Fluid Particle Processing Lab <sup>55</sup>	Practical
11	BTCHT508P	BCHT	Chemical Equipment Design	Practical	CT-PCC-507P	BCE	Chemical Reaction Engineering I Lab	Practical
12	--	--	--	--	CT-CS-508P	BCHT	#Special Technology I Lab <sup>**</sup>	Practical
13					CT-PCC-509P	BCE	Heat Transfer Lab <sup>**</sup>	Practical
14	--	--	--	--	MC		Constitution of India/ Essence of Indian Traditional Knowledge <sup>**</sup>	Audit Course (S/SF)

\* Students to appear in university theory examination as per the new scheme

\*\* Students to appear in university practical examination as per the new scheme

<sup>55</sup> Students to appear for these subjects in University Theory/Practical examination offered in any of the previous semester of B. Tech Chemical Tech (CBCS)

#Food Technology, #Oil Technology, #Petrochemical Technology, #Pulp and Paper Technology, #Plastics and Polymer Technology, #Surface coating Technology

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(S-Satisfactory / SF-Not Satisfactory)



Scheme of Absorption for Semester Pattern of 6 <sup>th</sup> Semester B. Tech. Chemical Technology from CBS to CBCS Scheme								
As Per Rashtrasant Tukadoji Maharaj Nagpur University (CBS Pattern)					As Per Rashtrasant Tukadoji Maharaj Nagpur University CBCS Pattern Scheme			
SIXTH SEMESTER B. TECH (CHEMICAL TECHNOLOGY)					SIXTH SEMESTER B. TECH (CHEMICAL TECHNOLOGY)			
Sr. No.	Sub Code Theory/ Practical	Board	Subject	Theory/ Practical	Sub Code Theory/ Practical	Board	Subject	Theory/ Practical
1	BTCHT601T	BCHT	Process Engineering Thermodynamics	Theory	CT-PCC-303T	BCE	Thermodynamics II <sup>SS</sup>	Theory
2	BTCHT602T	BCHT	Heat Transfer Operations	Theory	CT-PCC-501T	BCE	Heat Transfer <sup>SS</sup>	Theory
3	BTCHT603T	BCHT	Chemical Process Control	Theory	CT-PCC-603T	BCE	Process Dynamics & Control	Theory
4	BTCHT604T	BCHT	Environmental Engineering	Theory	CT-OEL-505T	BCE	Open Elective I <sup>*</sup> (Any one other than previously studied: Environmental Pollution & Control/ Renewable Energy/ Energy Conservation & Recycling)	Theory
5	BTCHT605T	BCHT	#Special Technology IV	Theory	CT-CS-604T	BCHT	#Special Technology III <sup>*</sup>	Theory
6	-----	-----	-----	-----	CT-PCC-601T	BCE	Chemical Reaction Engineering II <sup>*</sup>	Theory
7	-----	-----	-----	-----	CT-PCC-602T	BCE	Process Equipment Design <sup>*</sup>	Theory
8	-----	-----	-----	-----	CT-CS-605T	BCHT	#Special Technology IV <sup>*</sup>	Theory
9	-----	-----	-----	-----	CT-HSMC- HS-606T	BCE	HASS IV Industrial organization & Entrepreneurship Development <sup>*</sup>	Theory
10	BTCHT606P	BCHT	Heat Transfer Operations	Practical	CT-PCC-607P	BCE	Chemical Reaction Engineering II Lab <sup>**</sup>	Practical
11	BTCHT607P	BCHT	Environmental Engineering	Practical	CT-PCC-608P	BCE	Process Equipment Design & Drawing Lab <sup>**</sup>	Practical
12	BTCHT608P	BCHT	#Special Technology II	Practical	CT-CS-610P	BCHT	#Special Technology II Lab <sup>**</sup>	Practical
13	BTCHT609P	BCHT	Minor Project	Practical	CT-PCC-609P	BCE	Process Dynamics & Control Lab <sup>**</sup>	Practical
14	-----	-----	-----	-----	CT-CS-611P	BCHT	Summer Internship (3-4 Weeks) (to be evaluated in seventh semester) <sup>**</sup>	--

\* Students to appear in university theory examination as per the new scheme

\*\* Students to appear in university practical examination as per the new scheme

<sup>SS</sup> Students to appear for these subjects in University Theory/Practical examination offer in any of the previous semester B. Tech Chemical Tech (CBCS)

#Food Technology, #Oil Technology, #Petrochemical Technology, #Pulp and Paper Technology, #Plastics and Polymer Technology, #Surface coating Technology

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Scheme of Absorption for Semester Pattern of 7 <sup>th</sup> Semester B. Tech. Chemical Technology from CBS to CBCS Scheme					As Per Rashtrasant Tukadoji Maharaj Nagpur University CBCS Pattern Scheme			
As Per Rashtrasant Tukadoji Maharaj Nagpur University (CBS Pattern)					SEVENTH SEMESTER B. TECH (CHEMICAL TECHNOLOGY)			
SEVENTH SEMESTER B. TECH (CHEMICAL TECHNOLOGY)					SEVENTH SEMESTER B. TECH (CHEMICAL TECHNOLOGY)			
Sr. No.	Sub Code Theory/ Practical	Board	Subject	Theory/ Practical	Sub Code Theory/ Practical	Board	Subject	Theory/ Practical
1	BTCHT 701T	BCHT	Mass Transfer Operations	Theory	CT-PCC-702T	BCE	Mass Transfer II	Theory
2	BTCHT 702T	BCHT	Chemical Reaction Engineering	Theory	CT-PCC-701T	BCE	Transport Phenomenon	Theory
3	BTCHT 703T	BCHT	#Special Technology V	Theory	CT-PCC-703T	BCHT	#Special Technology V	Theory
4	BTCHT 704T	BCHT	#Special Technology VI	Theory	CT-PCC-704T	BCHT	#Special Technology VI	Theory
5	BTCHT 705P	BCHT	Mass Transfer Operations	Practical	CT-PCC-707P	BCE	Mass Transfer Lab	Practical
6	BTCHT 706P	BCHT	#Special Technology III	Practical	CT-PCC-706P	BCHT	#Special Technology III	Practical
7	BTCHT 707P	BCHT	Seminar and Industrial Training	Practical	CT-PCC-708P	BCHT	Seminar and Summer Internship Evaluation	Practical
8	--	--	--	--	CT-OEL-705T	BCE	*Open Elective II	Theory

\* Students to appear in university theory examination as per the new scheme

<sup>s</sup> Open Electives offered are only for B.Tech Chemical Engineering and B.Tech Chemical Technology (All specialization). Therefore, students B.Tech Chemical Engineering and B.Tech Chemical Technology (All specialization) need not be restricted from opting the open elective courses offered by their own program.

Elective	Subject Name		
	BOARD		
	BCE		
Open Elective II	Nanoscience and Nanotechnology	Optimization of Chemical Processes	Biochemical Engineering

#Food Technology, #Oil Technology, #Petrochemical Technology, #Pulp and Paper Technology, #Plastics and Polymer Technology, #Surface coating Technology

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Scheme of Absorption for Semester Pattern of 8 <sup>th</sup> Semester B. Tech. Chemical Technology from CBS to CBCS Scheme									
As Per Rashtrasant Tukadoji Maharaj Nagpur University (CBS Pattern)					As Per Rashtrasant Tukadoji Maharaj Nagpur University CBCS Pattern Scheme				
EIGHTH SEMESTER B. TECH (CHEMICAL TECHNOLOGY)					EIGHTH SEMESTER B. TECH (CHEMICAL TECHNOLOGY)				
Sr. No.	Sub Code Theory/ Practical	Board	Subject	Theory/ Practical	Sub Code Theory/ Practical	Board	Subject	Theory/ Practical	
1	BTCHT 801T	BCHT	Mathematical Modelling & Computer Aided Design	Theory	I	CT-PCC-801P	BCHT	**Industry Internship / Project (Entire Semester Duration)	Practical
2	BTCHT 802T	BCHT	Project Management	Theory					
3	BTCHT 803T	BCHT	#Special Technology VII	Theory					
4	BTCHT 804T	BCHT	#Special Technology VIII	Theory					
5	BTCHT 805P	BCHT	#Special Technology IV	Practical					
6	BTCHT 806P	BCHT	Project Work / Dissertation	Practical					

**\*\* Students to appear in university practical examination as per the new scheme**

#Food Technology, #Oil Technology, #Petrochemical Technology, #Pulp and Paper Technology, #Plastics and Polymer Technology, #Surface coating Technology

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