



BRAINWARE UNIVERSITY
Department of Civil Engineering
Course Structure: Master of Technology in Civil Engineering -Geotechnical Engineering
2021

SEMESTER – I

THEORY				
Course Code	Course Name	L-T-P	Credits	Total Marks
PCC-MGT101	Research Methodology	2-0-0	1	100
PCC-MGT102	Advanced Soil Mechanics	3-0-0	3	100
PCC-MGT103	Advanced Foundation Engineering -I	3-0-0	3	100
PEC-MGT101 A/B/C	Elective I	3-0-0	3	100
	A. Flow through Porous Media			
	B. Finite Element Methods in Geotechnical Engineering C. Advanced Structural Analysis			
PEC-MGT102 A/B/C	Elective II	3-0-0	3	100
	A. Retaining Structures and Under Ground Construction			
	B. Geotechnical Exploration & Instrumentations C. Environmental Geo-technology			
PRACTICAL/ SESSIONAL				
PCC-MGT191	Geotechnical Engineering Laboratory -I	0-0-4	2	100
PCC-MGT192	Computer Application in Engineering	0-0-4	2	100
PCC-MGT181	Seminar I	0-0-4	2	100
	Total		19	800
MC-MGT181 A/B	Audit Course-1	0-2-0	0	100
	A. Disaster Management B. Constitution of India			



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SEMESTER – II

THEORY				
Course Code	Course Name	L - T - P	Credits	Total Marks
PCC-MGT201	Theoretical Soil Mechanics	3-0-0	3	100
PCC-MGT202	Dynamics of soil and foundation	3-0-0	3	100
PCC-MGT203	Advanced Foundation Engineering -II	3-0-0	3	100
PEC-MGT201 A/B/C	Elective III	3-0-0	3	100
	A. Ground Improvement Techniques			
	B. Soil Structure Interaction C. Seismic Design of Structure			
PEC-MGT202 A/B/C	Elective IV	3-0-0	3	100
	A. Reinforced Earth			
	B. Rock Mechanics C. Structural Health Monitoring			
PRACTICAL/ SESSIONAL				
PCC-MGT291	Geotechnical Engineering Laboratory -II	0-0-4	2	100
PCC-MGT281	Seminar II	0-0-4	2	100
	Total		19	700
MC-MGT281 A/B/C	Audit Course-II	0-2-0	0	100
	A. Value Education & Engineering B. Research Paper Writing			

SEMESTER – III

THEORY				
Course Code	Course Name	L - T - P	Credits	Total Marks
PCC-MGT301	Geotechnical Earthquake Engineering	3-0-0	3	100
PEC-MGT301 A/B	Elective V	3-0-0	3	100
	A. Project Planning Management B. Stability analysis of slopes			
SESSIONAL				
PROJ-MGT381	Dissertation-I	0-0-20	10	100
	Total		16	300



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SEMESTER – IV

SESSIONAL				
Course Code	Course Name	L - T - P	Credits	Total Marks
PROJ-MGT481	Dissertation-II	0-0-28	14	100
PCC-MGT482	Comprehensive Viva-Voice	0-0-0	2	100
	Total		16	200

Total Credit – 19+19+16+16 = 70