

**NATIONAL INSTITUTE OF TECHNOLOGY,
SRINAGAR
SCHEME OF SYLLABUS**

M. Tech (Structural Engineering) Effective Autumn 2021 Session

FIRST SEMESTER

a) CORE COURSES

Course No	Subject	Credits
CSEM-101	Advanced Structural Analysis	3
CSEM-102	Structural Dynamics	3
CSEM-103	Advanced Concrete Technology	3
CSEM-104	Advanced Structural Eng. Laboratory -I	1

b) Elective I

Course No	Subject	Credits
MTHM-104	Numerical Methods	3
CSEM-105	Computer Applications in Structural Engineering	3
CSEM-106	Construction Technology & Management	3

c) Elective-II

Course No	Subject	Credits
CSEM-107	Design of Industrial Structures	3
CSEM-108	Theory of Plates and Shells	3
CGEM-312	Soil-Structure Interaction	3

Total Credits= 16

SECOND SEMESTER

a) CORE COURSES

Course No	Subject	Credits
CSEM-201	Finite Element Methods in Civil Engineering	3
CSEM-202	Earthquake Resistant Design	3
CSEM-203	Advanced Concrete Design	3
CSEM-204	Advanced Structural Eng. Laboratory -II	1
CSEM-205	Seminar	1

b) Elective –III

Course No	Subject	Credits
CSEM-206	Seismic Micro zonation	3

CGEM-202	Advanced Foundation Engineering	3
CSEM-207	Pre-Stressed Concrete	3

C) Elective-IV

Course No	Subject	Credits
CGEM-112	Soil Dynamics and Machine	3
CSEM-208	Foundations	3
CSEM-209	Continuum Mechanics	3
CSEM-210	Design of Tall Buildings	3

Total Credits= 17

THIRD SEMESTER

a) CORE COURSES

Course No	Subject	Credits
CSEM-301	Advanced Bridge Engineering	3
CSEM-302	Project-I	6

b) Elective-V

Course No	Subject	Credits
CSEM-303	Advanced Engineering Seismology	3
CWEM-302	Hydraulic Structures	3

c) Elective- VI

Course No	Subject	Credits
CSEM-304	Repair and Rehabilitation of structures	3
CSEM-305	Disaster Management	3
CSEM-306	Reliability Based Civil Engineering Design	3

Total Credits= 15

FOURTH SEMESTER

Course No	Subject	Credits
CSEM-401	Project-II	12

Grand Total of Credits = 60