

# Shantilal Shah Engineering College, Bhavnagar

## Applied Mechanics Department

### BE - CIVIL ENGINEERING (SEMSETER 7th,5th & 3rd, Odd-2020)

#### Syllabus of Mid Semester Evaluation (Online) (Sept-2020)

#	Semester	Subject Code	Name of Subject	Syllabus-Topic/Units
1	7th	2170607	Design of Reinforced Concrete Structures	1. Building Layout and Design; 2. Design of Cantilever Retaining Wall; 3. Earthquake Resistant Design of building (Except Ductile design as per IS 13920)
2		2170612	Earthquake Engineering (Dept. Elective)	1. Fundamentals of Earthquake Vibrations of Buildings; 2. Design Philosophy ( Except Response Spectrum Method); 3. Lateral Loads on buildings.
1	5th	3150610	Concrete Technology	1. Ingredients of Concrete 2. Practical's: initial and final setting time of cement, Consistency test and Soundness Test on cement,Sieve analysis
2		3150612	Design of Structures	<b>RCC PORTION:</b> 1. Philosophy of Limit state design for RCC 2.Analysis & Design of Singly, Doubly & T- Beams <b>STEEL PORTION:</b> Unit-4: Philosophy of Limit state design for Steel: Unit-5: Limit state design of Steel components Tension member[theory and Numerical], Compression member [Only Theory]
3		3150614	Structural Analysis-II (Professional Elective II)	Unit -1 : Slope Deflection Method (Analysis of Beams & Frames) Unit-3: Energy Principles Castigliano's 1st and 2nd theorems (Not included Truss) Unit-4: Influence Line Diagram for Determinant & Indertminant beams
4		3150615	Soil Mechanics (Professional Elective-II)	1. Stress Distribution of Soils 2. Subsurface Investigation 3. Bearing Capacity of Shallow Foundation 4. Types of piles according to their composition, their method of installation and their load carrying characteristics
1	3rd	3130606	Geotechnical Engineering	1. Type of Soils, Index Properties, Inter-relationships and Soil Characterization 2. Permeability and Seepage 3. Compaction & Consolidation of soil. 4. Practical's: Sieve analysis, Atterberg's Limit Test, Proctor Compaction Test
2		3130608	Mechanics of Solids	1.Introduction, 2.Fundamental of Statics, 3.Centroid,Center of gravity & Moment of Inertia, 4.Torsion

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### PDDC CIVIL ENGINEERING (SEMSETER 5th & 3rd)

#### Syllabus of Mid Semester Evaluation (Online) (Sept-2020)

#	Semester	Subject code	Name of Subject	Syllabus-Topic/Units
1	5th	2950603	Design of Structures	<b>RCC Portion:</b> 1. Philosophy of Limit state design for RCC 2. Analysis & Design of Singly & Doubly beams
1	3rd	2930603	Geotechnical Engineering	1. Type of Soils, Index Properties, Inter-relationships and Soil Characterization 2. Permeability and Seepage 3. Compaction & Consolidation of soil

**SD/-**  
**HOD-APPLIED MECHANICS**  
**SSEC - BHAVNAGAR**