



EC CONCEPT

TNPSC Combined Engineering Service Exam June 2022

Civil Engineering

ONLINE TEST SERIES - SCHEDULE

I. TOPIC WISE TESTS

Number of questions : 50		Maximum marks : 75	
Duration : 45 minutes		Negative Marking : nil	
TEST NO	TEST ACTIVATION DATE	UNITS	TOPICS COVERED
1	18.4.2022	UNIT - I: BUILDING MATERIALS AND CONSTRUCTION PRACTICES	(i) Properties of engineering materials-brick, stones, aggregates, cement (types and grades), concrete (mix design), Concrete admixtures, Self compacting Concrete, steel and new materials.
2	19.4.2022		(ii) Construction of stone masonry, brick masonry and R.C.C. and block masonry – construction equipments - Building bye - laws and Development regulations practiced in Tamil Nadu - Provisions for fire safety, lighting and ventilation- Acoustics.
3	21.4.2022	UNIT - II: ENGINEERING SURVEY	(i) Survey - computation of areas - Chain Survey - Compass surveying - Plane table survey
4	22.4.2022		(ii) levelling - fly levelling - L.S. and C.S. - Contour volumes - Theodolite survey - Traversing - Heights and Distances - Geodetic Observations-
5	23.4.2022		(iii) Tacheometry and Triangulation - Use of EDM, GPS and Remote sensing techniques.
6	25.4.2022	UNIT III: STRENGTH OF MATERIALS	(i) Stresses and strains -Thermal stresses- elastic constants - Beams and bending - Bending moment and shear force in beams.
7	26.4.2022		(ii) Theory of simple bending - deflection of beams - torsion - Combined stresses - stresses on inclined planes.

TEST NO	TEST ACTIVATION DATE	UNITS	TOPICS COVERED
8	27.4.2022	UNIT III: STRENGTH OF MATERIALS	(iii) Principal stresses and principal planes - Theories of Failure - Analysis of plane trusses.
9	29.4.2022	UNIT IV: STRUCTURAL ANALYSIS	(i) Indeterminate beams - Stiffness and flexibility methods of structural analysis - Slope deflection - Moment Distribution method.
10	30.4.2022		(ii) Arches and suspension cables - Theory of columns - moving loads and influence lines.
11	1.5.2022		(iii) Matrix method- Stability of retaining walls - plastic theory.
12	3.5.2022	UNIT V : GEOTECHNICAL ENGINEERING	(i) Formation of soils - types of soils - classification of soils for engineering practice - Field identification of soils - Physical properties of soils - Three phase diagram - permeability characteristics of soils.
13	4.5.2022		(ii) Stress distribution in soils - Theory of consolidation, shear strength parameters of soils - Compaction of soils.
14	5.5.2022		(iii) Soil exploration - Soil sampling techniques - Borelog profile - shallow foundations - Terzhagi's bearing capacity theory - Pile foundation - Group action of piles - settlement of foundations.

TEST NO	TEST ACTIVATION DATE	UNITS	TOPICS COVERED
15	7.5.2022	UNIT VI : ENVIRONMENTAL ENGINEERING AND POLLUTION CONTROL	(i) Sources of water - Ground water Hydraulics - Characteristics of water - Water analysis - water treatment - water borne diseases.
16	8.5.2022		(ii) Sewerage system - Design of sewerage systems - sewer appurtenances - Pumping of sewage - sewage treatment and disposal - Industrial waste treatment
17	9.5.2022		(iii) Solid waste management - Air, water and Noise pollution control- e waste management.
18	11.5.2022	UNIT – VII: DESIGN OF REINFORCED CONCRETE, PRESTRESSED CONCRETE AND STEEL STRUCTURES	(i) Design of concrete members - limit state and working stress design concepts
19	12.5.2022		(ii) Design of slabs - one way, two way and flat slabs - Design of singly and doubly reinforced sections and flanged sections.
20	13.5.2022		(iii) Design of columns and footings – pre- stressing - systems and methods- post tensioning slabs - Design of pre-stressed members for flexure.
21	14.5.2022		(iv) Design of tension and compression members - Design of Bolted and welded connections.
22	15.5.2022		(v) Design of members of Truss - designs of columns and bases - design of beams.
23	16.5.2022		(vi) Plate girders and gantry girder.

TEST NO	TEST ACTIVATION DATE	UNITS	TOPICS COVERED
24	18.5.2022	UNIT-VIII: HYDRAULICS AND WATER RESOURCES ENGINEERING	(i) Hydrostatics-applications of Bernoulli equation – flow measurement in channels, Applications of Momentum equation, Kinematics of flow.
25	19.5.2022		(ii) Water resources in Tamil Nadu - Water resource planning - Master plan for water management flood control –Runoff estimation – hydrograph – flood routing - Soil plant water relationship - Water requirement of crops
26	20.5.2022		(iii) Irrigation methods –Design of alluvial canal and design of headworks. Waterlogging and land reclamation - Cross drainage works.
27	23.5.2022	UNIT-IX: URBAN AND TRANSPORTATION ENGINEERING	(i) Urbanisation trend and impact - Slum clearance and slum improvement programmes - Different modes of transport and their characteristics. Geometric design of highways. –Design and Construction of bituminous and concrete roads - Maintenance of roads.
28	24.5.2022		(ii) Railways-Components of permanent way - Signalling, Interlocking and train control. Airport planning-Components of Airport - Site selection – Runways – Planning of terminal buildings. Harbours & Ports- Layout of a harbour - Docks - Breakwaters.

TEST NO	TEST ACTIVATION DATE	UNITS	TOPICS COVERED
29	26.5.2022	UNIT-X: PROJECT MANAGEMENT AND ESTIMATING	(i) Construction management - Construction planning - Scheduling and monitoring - Cost control, Quality control and inspection - Network analysis - CPM and PERT methods of project management - Resources planning and resource management.
30	27.5.2022		(ii) Types of estimates - Preparation of technical specifications and tender documents - Building valuation - law relating to contracts and arbitration.

II. UNIT WISE TESTS

Number of Questions : 100		Maximum Marks : 150
Duration : 90 minutes		Negative Marking : nil
TEST NO	TEST ACTIVATION DATE	UNITS
31	2.5.2022	UNIT - I: BUILDING MATERIALS AND CONSTRUCTION PRACTICES
32	6.5.2022	UNIT - II: ENGINEERING SURVEY
33	10.5.2022	UNIT III : STRENGTH OF MATERIALS
34	17.5.2022	UNIT IV :STRUCTURAL ANALYSIS
35	21.5.2022	UNIT V : GEOTECHNICAL ENGINEERING
36	25.5.2022	UNIT VI : ENVIRONMENTAL ENGINEERING AND POLLUTION CONTROL
37	28.5.2022	UNIT – VII:DESIGN OF REINFORCED CONCRETE, PRESTRESSED CONCRETE AND STEEL STRUCTURES
38	30.5.2022	UNIT-VIII: HYDRAULICS AND WATER RESOURCESENGINEERING
39	1.6.2022	UNIT–IX: URBAN AND TRANSPORTATION ENGINEERING
40	3.6.2022	UNIT-X: PROJECT MANAGEMENT AND ESTIMATING

III. MOCK TESTS

Number of Questions : 200		Maximum Marks : 300
Duration : 180 minutes		Negative Marking : nil
TEST NO	TEST ACTIVATION DATE	MOCK TESTS
41	22.5.2022	Mock Test - 1
42	29.5.2022	Mock Test - 2
43	5.6.2022	Mock Test - 3
44	12.6.2022	Mock Test - 4
45	19.6.2022	Mock Test - 5

Test Features:

- ✓ Total **45** Tests and Number of Questions: **3500**
- ✓ Quality questions prepared by EC Concept expert team.
- ✓ Detailed explanations will be given.
- ✓ Improve Speed, Accuracy and Time Management.
- ✓ Performance Analysis Report.
- ✓ Tests can be attend anytime.
- ✓ All the tests will be active till the TNPSC AE 2022 Examination.

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