

8. Plan of Examination:

Stages of Examination	Type of Examination	Marks allotted	Duration	remarks
Stage-I	Main Written Examination (Objective Type)	100 Marks	1 & ½ Hours	Main written examination will be objective type to be conducted in OMR Sheet/ or CBRT.50% Weight-age will be awarded in the written examination. There shall be negative marking @ 0.25 marks for each wrong answer. No marks will be awarded or deducted for any question left un-attempted.
Stage-II	Career Evaluation	Rest 50 % Weight-age of career evaluation is as below 1.HSC-20% 2. Diploma in Civil Engineering-30%	--	The career evaluation shall be done as per the marks filled up by the candidates in the online application form and as per their uploaded documents. Hence candidate should enter their full Marks and marks secured both in HSC & Diploma level vigilantly. (Note-refer cautions mentioned at Page-5 of this advertisement while entering the marks.)
Stage-III	Certificate verification	--	--	Candidates up to 2(two) times the vacancies advertised in each category in order of merit basing on the marks both in Written Examination & Career evaluation shall be shortlisted for the verification of original documents. The candidate who fails to attend the document verification, his/her name will not be considered for the post.

There shall be no viva-voce test.

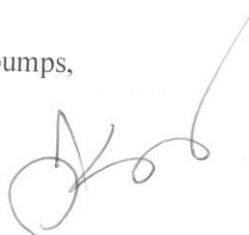
9. Syllabus for main written examination :

The question of this paper will be of objective type from the Diploma courses to conducted on OMR sheets/CBRT mode. The questions will be of objective type based on the 2nd and 3rd year of Diploma in Civil Engineering courses of SCTE&VT, Odisha

The gist of the syllabus of the written examination is a described below. The syllabus is indicative and not exhaustive. The question will be asked from both the theory and application part on each of the topic.

(a) Hydraulics

Hydrostatics, Kinematics of fluid flow, pumps,



(b) **Survey**

Introduction to surveying, Linear measurements , chaining, chain surveying, angular measurement, chain and compass surveying, computation of area, plane table surveying, levelling, contouring, principles of theodolite surveying, theodolite traversing, tacheometry, curves, setting out works, modern surveying method.

(c) **Civil Engineering materials**

Stone, Bricks, clay products and refractory materials, cement, sand, gravel, morrum and fly ash, mortar and concrete, timber, paint, varnish and distemper, iron and steel, bituminous materials, plastics, heat proofing and acoustic materials.

(d) **Construction Technology**

Introduction to construction technology, site investigation, foundations, walls, damp proofing, arches and lintels, doors and windows, floors, roofs, stairs, surface finishes, general idea of seismic planning and design of building, construction machineries.

(e) **Structural Analysis**

Trusses and frames, slope and deflection, fixed beam, continuous beam, slope deflection method, moment distribution method, three hinged arches.

(f) **Transportation Engineering**

Introduction to transportation engineering, road geometric, road materials, road pavements, hill roads, road drainage, road maintenance, construction equipments, traffic studies, landscaping and arboriculture, Introduction to railways transporting, permanent way, track materials, geometric for broad gauge, points and crossings, laying and maintenance of track, introduction to bridges, bridge site investigation, hydrology and planning, bridge foundation, bridge substructure and approaches, permanent bridges, culvert and cause ways, introduction to docks and harbours, break waters, docks, introduction to airport engineering, components of an airport, tunnel engineering.

(g) **Irrigation Engineering**

Introduction to irrigation engineering, hydrology, water requirement of crops, flow irrigation, diversion head works, regulatory works, cross drainage works, dams, water logging and drainage, ground water hydrology.


(h) **Estimating**

Introduction to estimating, detailed estimate of building as per PWD specifications/standards, analysis of rates, administrative setups of engineering organisations, detailed estimate of culverts and bridges, estimate of irrigation structures, detailed estimate of roads, PWD accounts works.

(i) **Structural Design**

Introduction to design and detailing, working stress method of design, limit state method (LSM) of design, limit state of collapse of singly reinforced members in bending, limit state of collapse in shear(Design of shear by LSM), bond anchorage, development lengths and slicing (LSM), beams(LSM) two way slabs (LSM), axially loaded short columns(LSM), ductile detailing or reinforced concrete structures subjected to seismic forces, Design of steel and timber structures (limit state), structural steel fasteners and connections, design of tension members, design of compression members, design of column bases and foundations, design of steel beams, design of timber structures, stair case(RCC-LSM), design of footings (RCC-LSM).

(j) **Public Health Engineering**



Introduction to water supply engineering, quantity of water, sources of water, conveyance of water, quality of water and treatment of water, distribution system, appurtenance in distribution system, water supply plumbing in building, introduction to sanitary engineering, quantity of sewage, sewerage system, sewer appurtenance, sewage characteristics, sewage disposal, sewage treatment, sanitary plumbing for building and rural water supply sanitation.

(k) **Construction Management**

Introduction to construction management, construction planning, materials management, site management, construction organisation, labour management, equipment management, quality control, monitoring progress and safety management in construction works.

(l) **Advanced Construction Technology**

Concrete mixed design, handling and transporting of concrete, earthquake resistant construction, building services, construction and earth moving equipments.

10. PLACE AND DATE OF WRITTEN EXAMINATION:

(a) The Date/Time/ Venue of the Written Examination will be informed to the eligible candidates in their Admission Letters, in due course. The admission letters shall only be downloaded by the eligible candidates by accessing the Commission's website by using their 'User ID' and 'Password' from a date to be notified later on.

(b) PwD candidates intend to use Scribe/Reader should apply for permission of the Commission in writing prior to 7(seven) days of the date of Examination submitting his/her admission letter of written Test & copy of the self attested copy of disability certificate and enclosing there in the details of the scribe who will be allowed for the test. The I.D. proof and the highest educational qualification of certificate of the scribe to be used must be enclosed in the application. The scribe must have less qualification than the educational qualification prescribed for the post.

11. Admission letter:

Admission Letters for the written examination will be made available to the eligible candidates in the official website of the commission one week prior to the date of the examination carrying the photograph and signature of the eligible/qualified candidate and signature of the Secretary of the Commission. This will carry intimation about the date, time and venue of the written examination. Each eligible candidates shall have to download their admit card/admission letter well before the date of the examination by logging in to the official website of the Commission "www.ossce.gov.in" and clicking at sub menu 'online application' by using their 'User ID' and 'Password'. Candidates may note that if the application has been rejected the same would be indicated along with grounds of rejection in the Commission's website for information of the candidates. The date(s)/Time/Venue of the examination will be notified in local dailies (newspapers) and in the Commission's website for information of the candidates.

