

अ.क्र.	पदनाम	परीक्षेचे स्वरूप व गुण (विषय)	परीक्षेचा दर्जा
१	i) कार्यकारी अभियंता (स्थापत्य) ii) उपअभियंता (स्थापत्य) iii) सहाय्यक अभियंता (स्थापत्य)	मराठी भाषा, इंग्रजी भाषा, सामान्य ज्ञान व बौद्धिक चाचणी प्रत्येकी २५ गुण याप्रमाणे १०० गुण आणि संबंधित शाखेतील तांत्रिक विषय १०० गुण याप्रमाणे. (अभ्यासक्रम सोबत जोडला आहे)	शासन मान्यताप्राप्त विद्यापीठांच्या पदवी परीक्षेच्या दर्जाच्या समान परंतु मराठी या प्रश्नपत्रिकेचा दर्जा उच्च माध्यमिक शालांत परीक्षेच्या (इयत्ता १२वी) च्या दर्जाच्या समान
२	कनिष्ठ अभियंता (स्थापत्य)	मराठी भाषा, इंग्रजी भाषा, सामान्य ज्ञान व बौद्धिक चाचणी प्रत्येकी २५ गुण याप्रमाणे १०० गुण आणि संबंधित शाखेतील तांत्रिक विषय १०० गुण याप्रमाणे. (अभ्यासक्रम सोबत जोडला आहे)	शासन मान्यताप्राप्त विद्यापीठांच्या पदविका परीक्षेच्या दर्जाच्या समान परंतु मराठी या प्रश्नपत्रिकेचा दर्जा माध्यमिक शालांत परीक्षेच्या (इयत्ता १०वी) च्या दर्जाच्या समान
३	मिळकत व्यवस्थापक/ प्रशासकीय अधिकारी	मराठी , इंग्रजी, सामान्य ज्ञान व बौद्धिक चाचणी प्रत्येकी २५ गुण याप्रमाणे १०० गुण आणि व्यवसाय व्यवस्थापन संबंधित शाखेतील १०० गुण.	शासन मान्यताप्राप्त विद्यापीठांच्या पदवी परीक्षेच्या तसेच व्यवसाय व्यवस्थापन (Business Management) मधील वाणिज्य व वित्त (Marketing and Finance) दर्जाच्या समान. परंतु मराठी या प्रश्नपत्रिकेचा दर्जा उच्च माध्यमिक शालांत परीक्षेच्या (इयत्ता १२वी) च्या दर्जाच्या समान.
४	i) सहायक ii) वरीष्ठ लिपीक iii) कनिष्ठ लिपीक- टंकलेखक	मराठी , इंग्रजी, सामान्य ज्ञान व बौद्धिक चाचणी प्रत्येकी ५० गुण याप्रमाणे एकूण २०० गुण	शासन मान्यताप्राप्त विद्यापीठांच्या पदवी परीक्षेच्या दर्जाच्या समान परंतु मराठी या प्रश्नपत्रिकेचा दर्जा उच्च माध्यमिक शालांत परीक्षेच्या (इयत्ता १२वी) च्या दर्जाच्या समान.
५	कनिष्ठ वास्तुशास्त्रज्ञ सहायक	मराठी भाषा, इंग्रजी भाषा, सामान्य ज्ञान व बौद्धिक चाचणी प्रत्येकी २५ गुण याप्रमाणे १०० गुण आणि संबंधित शाखेतील तांत्रिक विषय १०० गुण याप्रमाणे. (अभ्यासक्रम सोबत जोडला आहे)	शासन मान्यताप्राप्त विद्यापीठांच्या पदविका परीक्षेच्या दर्जाच्या समान परंतु मराठी या प्रश्नपत्रिकेचा दर्जा माध्यमिक शालांत परीक्षेच्या (इयत्ता १०वी) च्या दर्जाच्या समान
६	i) स्थापत्य अभियांत्रिकी सहायक ii) भुमापक iii) अनुरेखक iv) लघुटंकलेखक	मराठी , इंग्रजी, सामान्य ज्ञान व बौद्धिक चाचणी प्रत्येकी ५० गुण याप्रमाणे एकूण २०० गुण. (लघुटंकलेखक या संवर्गात गुणवत्ता यादीमध्ये निवड झालेल्या उमेदवारांची ५० गुणांची व्यावसायिक चाचणी घेण्यात येईल. एकूण २५० गुण )	माध्यमिक शालांत परीक्षेच्या (इयत्ता १० वी) च्या परीक्षेच्या दर्जा समान,
७	सहायक विधी सल्लागार	मराठी भाषा, इंग्रजी भाषा, सामान्य ज्ञान व बौद्धिक चाचणी प्रत्येकी २५ गुण याप्रमाणे १०० गुण आणि विधी शाखेतील विषय १०० गुण याप्रमाणे. (अभ्यासक्रम सोबत जोडला आहे)	शासन मान्यताप्राप्त विद्यापीठांच्या विधी पदवी परीक्षेच्या दर्जाच्या समान परंतु मराठी या प्रश्नपत्रिकेचा दर्जा उच्च माध्यमिक शालांत परीक्षेच्या (इयत्ता १२वी) च्या दर्जाच्या समान.

## Syllabus for Direct Recruitment – 2021 for the posts of

### Executive Engineer, Deputy Engineer and Assistant Engineer

1. **Mechanics** : simple stress and strain relationship. Mohrs circle, simple bending theory, flexural and shear stresses, uniform torsion, buckling of column, combined and direct bending stresses.
2. **Concrete Structure** : Concrete design- basic working and limit state design concepts, analysis of ultimate load capacity and design of members subjected to flexure, shear, compression and torsion by limit state methods. Basic elements of prestress concrete.
3. **Steel Structures** : Analysis and design of tension and compression members, design of plate girders and trusses, plastic analysis of beams and frames. Rivet and Bolted connections.
4. **Soil Mechanics and Foundation Engineering** : Soil Classification and soil analysis. Sub surface investigations, Earth pressure theories effect of water table, layered soils. Stability of slopes. Foundation types- Foundation designsnrequirements. Shallow and Deep foundation.
5. **Fluid Mechanics and Hydrology** : Forces on immersed bodies, flow measurements in channels, tanks and pipes. Dimensional analysis and hydraulic modeling, Kinetic flow, velocity triangles and specific speed of pumps and turbines.  
Hydraulogy : Unit hydro graphs, flood estimation, reservoir capacity, reservoir and channel routing well hydraulics.
6. **Surveying** : Principles and Classification, mapping concepts, coordinate system, map projectyions, measurements of distance and directions leveling, theodolite traversing, plane table surveying, errors and adjustments, curves, Advance method of surveying

7. **Environmental Engineering** :
- a) Water Supply : Sources of supply, design of intakes, estimation of demand, water quality standards, Primary and secondary treatment, maintenance of treatment units.
  - b) Sewerage : Disposal, design of sewer and sewerage systems, pumping.
8. **Internet basics.**

## **Junior Engineer (Civil)**

1. **Mechanics** : simple stress and strain relationship, simple bending theory, slopes and deflection, buckling of column.
2. **Construction Materials** : Building stones, Bricks and Tiles, Cement, Lime, Timber and Wood based products, Paints and varnishes, Metals..
3. **Building Construction** : Brick Masonary, Stone masonry, Walls, Mortars and Concretes, Form Work and scaffolding, Damp Proofing, Arches and Lintels, Doors and Windows, Roofs, Floors, Stairs, Surface Finishes and Building Planning.
4. **Concrete Technology** : Ingredians of Concrete, Properties of Concrete, Water Cement Ratio, Workability, Form Work.
5. **Surveying** : Chain Surveying, Campus Surveying, Levelling, theodolite traversing, Plane Table Surveying, Curves.
6. **Elements of R.C.C. Design** : Reinforcement Materials, Theory of R.C.C. Beams, Columns and Slabs, Basic elements of Prestressed Concrete.
7. **Soil Mechanics and Foundation Engineering** : Soil Classification, Soil Exploration, Stability of slopes, Bearing Capacity, Foundation – Shallow and Deep.
8. **Estimating and Costing** : Buildings, Analysis of Rates, Valuation.
9. **Elements of Steel Structural Design** : Tension Members, Compression Members, Structural Steel and Sections, Structural Steel Connections.
10. **Internet Basics.**

## **Asst Legal Adviser**

- 1. Constitution of India :** Article 226 and 227 of constitution of India. Fundamental Rights. Directive Principles of State Policy. Article 165. Advocate General of State Appointment of High Court Justice and Appointment of District Judges. Special Provision relating to certain classes – Article 330, 340, 341, 342. Amendment of the Constitution of India Article 368.
- 2. MHADA Act 1976 :** Duties and Functions of MHADA – Section 28. Power of State Govt to acquire land – Section-41. Power to purchase or Lease by Agreement-Section-52. Power to evict persons from Authority premises and Recovery of Rent 13 ar of Jurisdiction of Civil Court-Section-71. Structural Repairs-Section-88. Acquisition of cessed property for co-operative housing society. Bar of Jurisdiction-Section-In. Authority to enforce certain contracts or Agreements-Section-179 Power to make Rule-Section-184: Power to make Regulation-Section-185. Appointment of Competent Authority under section of..
- 3. Specific Relief Act 1963 :** Recovery of specific immovable property – Section-5. Contracts not specifically enforceable – Section – 14. Who may obtain specific performance instrument may be rectified. Cases in which specific performance contract enforceable. Recovery of specific immovable property. Preventive Relief flow granted.
- 4. The Indian Penal Code 1860 :** Right to private defence of the body and or property. Definition of criminal conspiracy. Public Servant disobeying Law with intent to cause injury to any person. Public Servant unlawfully buying or bidding for property. Illegal purchase or bid for property offered for sale by Authority of public servant. Threat to injury to public servant. Dishonest misappropriation of property. Criminal Breach of trust. Cheating. Criminal Trespass.

Forgery Making a False documents. Forgery for purpose of cheating.

5. Indian Evidence Act : Define Admission Evidence may be given of facts in issue and relevant facts Public documents and private document. Burden of proof- whom burden proof lies Estoppel; Leading Question; When they must asked. When witness to be compelled to answer Procedure of Court in case of question being asked without reasonable grounds Impeaching credit of witness Production of documents. Examination in chief; Cross examination and Re examination of witness. Difference between oral Evidence and Documentary Evidence.
6. The Right to Fair Compensation and and Transperancy in Land Acquisition : Rehabilitation and Resettlement Act 2003 : Determination of Social Impact and public purpose Preliminary survey of land and power of officers to carry out survey. Payment of damages. Determination of amount of compensation Parameters to be considered by collector in determination of Award. What is special provision to safeguard food security. Award of Collector when to be final.
7. The Environment (Protection) Act 1988 : Powers of Central Government to take measures to protect and improve environment.
8. The Maharashtra Slum Area (Improvement, Clearance & Redevelopment) Act 1971 : Slum Rehabilitation Scheme Restriction on transfer of tenement Appoint of Competent Authority Declaration of Slum Area. Power of Competent Authority to require occupiers to vacate premises. Power of State Govt to acquire land Restoration of possession of premises vacated by tenant. Order of demolition of Bldg in certain area.
9. The Indian Contract Act 187 :
  - (i) What Agreements are Contract.

- (ii) Who are competent to contract.
- (iii) Communication, Acceptance and Revocation of proposals
- (iv) Contracts, voidable of Agreement.
- (v) Consideration
- (vi) Breach of Contract.

## **10. Transfer of Property :**

Movable and Immovable property

- (i) What is movable property and immovable property
- (ii) Sale – Features of sale, Deed of conveyance, Details of the contents
- (iii) Mortgage
- (iv) Lease – Features of lease, Agreement to Lease and Agreement of Lease, Period and commencement . Consideration, possession, marketable title,
- (v) Execution of lease, stamp and Registration
- (vi) Agreement of lease
- (vii) Sublease
- (viii) Renewal of lease
- (ix) Leave and Licence Agreement
- (x) Rectification, Cancellation and Confirmation
- (xi) Development Agreement
- (xii) Rights and obligation of a Developer
- (xiii) What is FSI
- (xiv) Release deed

**XI. Consumer Protection Act 2019 :** Definition of Consumer, Jurisdiction of the Act, Jurisdiction of the District Forum, State Commission and National Commission. Appeal, Limitation period, Enforcement of the orders of District Forum, State Commission and National Commission. Penalties. Appeal against the order passed under under section 27. Protection of Action taken in good faith.

**XII. RERA 2016** : Promoter, Functions & duties of allottee, establishment and incorporation of Real Estate Regulatory Authority. Power to issue interim orders. Appellate Tribunal. Punishment for failure to comply with orders of Authority by promoter,. Compounding of Offences.



## **Junior Architectural Assistant**

1. Layout of Lands – (i) Need of layouts (ii) Acts & bylaws (iii) Main planning principles (iv) Traffic, Circulation, Road, patterns (v) Landscaping.
2. Development Control Rules – (i) Requirement of part of building (ii) Parking spaces (iii) F.S.I. & T.D.R. (iv) Tenement density (v) Minimum sizes, width, height of habitable room
3. Broad introduction to MRTP ACT 1966 with specific intention of development plan preparation and procedure.
4. Various types of reservations and modes of implementation.
5. Design concept with respectyive climate, energy saving, green building and variation in design as per subject user, site and topography.
6. Specific DCR regarding high-rise building and allied clearance or necessary approval required e.g. civil aviation authority, MOEF.
7. Plotted development schemes and site and services schemes.
8. Special interest – (i) Prefab housing (ii) Non residential building e.g. Hospital, Auditorium, Hotels and resorts.

Affordable housing concept and solutions e.g. slum rehabilitation schemes, low cost housing etc.

