Syllabus for Senior Manager (Contracts) Vacancy Notice No. 06/2023

Domain Knowledge

≈ 70%

- 1. Principle of Public Procurement.
- 2. Type of work Contracts- Item Rate, Lump-sum, Cost plus contract.
- 3. Type of consultancy contract: Time based, lump-sum.
- 4. Type of Tenders- Open, Limited & Single Tender
- 5. Eligibility criteria of tenders
- 6. General condition of yellow book and red book contracts.
- 7. Various source of selection of contractor/consultant including evaluation of tenders: Least Cost Selection, Quality Cost based Selection, Quality Based Selection
- 8. Instructions to Bidders (ITB), bidding forms of different type of tenders.
- 9. Arbitration & Dispute resolutions
- 10. Indian contract law
- 11. Contract Management principles
- 12. Procurement guidelines of various funding agencies (JICA, ADB, World Bank, Multi-Lateral banks.
- 13. Public Procurement: Preference to Make in India
- 14. E-tendering process.

Syllabus for Manager (Contracts) Vacancy Notice No. 07/2023

Domain Knowledge

≈ 70%

- 1. Principle of Public Procurement.
- 2. Type of work Contracts- Item Rate, Lump-sum, Cost plus contract.
- 3. Type of consultancy contract: Time based, lump-sum.
- 4. Type of Tenders- Open, Limited & Single Tender
- 5. Eligibility criteria of tenders
- 6. General condition of yellow book and red book contracts.
- 7. Various source of selection of contractor/consultant including evaluation of tenders: Least Cost Selection, Quality Cost based Selection, Quality Based Selection
- 8. Instructions to Bidders (ITB), bidding forms of different type of tenders.
- 9. Arbitration & Dispute resolutions
- 10. Indian contract law
- 11. Contract Management principles
- 12. Procurement guidelines of various funding agencies (JICA, ADB, World Bank, Multi-Lateral banks.
- 13. Public Procurement: Preference to Make in India
- 14. E-tendering process.

<u>Syllabus for Senior Manager (Rolling Stock – Bogie & Brake System)</u> Vacancy Notice No. 08/2023

Domain Knowledge

≈ 70%

- 1. General aspects of Railways such as infrastructure jargons, grades of automation, certification procedure of metros, project phases, etc.
- 2. Basic understanding of EMU type Rolling Stock such as integration of systems, subsystems and nomenclature of equipment.
- 3. Bogie system parts i.e. Bogie frame, Suspension, Wheel, Axle, Bearing, Centre pivot etc. material, function, design of EMU rolling stock (relevant International Standards).
- 4. Pneumatic System Different type of Brakes in Rolling Stock, Adhesion, Slip-Slide, Brake blending etc concepts of EMU rolling stock (relevant International Standards).
- 5. Rail vehicle dynamics Ride Index, Derailment coefficient, Wheel off-loading, Vibration etc. (relevant International Standards) of EMU rolling stock.
- 6. Pantograph mechanical design (relevant international Standards) of EMU rolling stock.
- 7. Testing and commissioning w.r.t. Bogie, Brake, pneumatic system; Oscillation trials, Emergency braking distance (EBD) of EMU rolling stock.
- 8. Basics of Contract Management, FIDIC etc.
- 9. Tender evaluation and Contract Management principles with regard to design of Bogie & Brake System.

<u>Syllabus for Assistant Manager (Rolling Stock – Car body)</u> <u>Vacancy Notice No. 09/2023</u>

Domain Knowledge

≈ **70%**

- 1. General aspects of Railways such as infrastructure jargons, grades of automation, certification procedure of metros, project phases, etc.
- 2. Basic understanding of EMU type Rolling Stock such as integration of systems, subsystems and nomenclature of equipment.
- 3. Car body design including material, structure, manufacturing, welding & casting process and strength of EMU rolling stock (relevant international standards).
- 4. Car body fittings including HVAC (Heating, Ventilation & Air-conditioning), Interior equipment, lighting, cabling, driving cab, coupler, gangway, side door, window etc. material, function, design of EMU rolling stock (relevant international standards).
- 5. Layout of equipment, fire prevention, understanding of Car body FEA, Mounting bracket strength, fastening torque for equipment of EMU rolling stock (relevant international standards).
- 6. Testing and commissioning w.r.t. Car body (Including structure, strength), HVAC, Interior equipment, lighting, Cabling, Driving cab, Coupler, Gangway, Side door, Window etc. of EMU rolling stock (relevant international standards).

General Awareness, English, Reasoning

<u>Syllabus for Assistant Manager (Rolling Stock – Electrical)</u> <u>Vacancy Notice No. 10/2023</u>

Domain Knowledge

≈ **70%**

- 1. General aspects of Railways such as infrastructure jargons, grades of automation, certification procedure of metros, project phases, etc.
- 2. Basic understanding of EMU type Rolling Stock such as integration of systems, subsystems and nomenclature of equipment.
- 3. Basics of designing of Train Control and Management System (TCMS) or Train Information and Management System (TIMS); control circuit and other electronics & communication devices of EMU rolling stock (relevant International Standards).
- 4. Testing and commissioning of Train Control and Management System (TCMS) or Train Information and Management System (TIMS); control circuit and other electronics & communication devices of EMU rolling stock (relevant International Standards).
- 5. Interface with S&T, PSD and OCC, Train Communication Networks, EMI/EMC, Vehicle/Train Control Circuit, etc. concepts (relevant International standards).

General Awareness, English, Reasoning

≈ 30%

<u>Syllabus for Assistant Manager (Rolling Stock – Electronics)</u> <u>Vacancy Notice No. 11/2023</u>

Domain Knowledge

≈ 70%

30%

- 1. General aspects of Railways such as infrastructure jargons, grades of automation, certification procedure of metros, project phases, etc.
- 2. Basic understanding of EMU type Rolling Stock such as integration of systems, subsystems and nomenclature of equipment.
- 3. Basics of Designing of Propulsion system including HV power collection, transformer, traction converter, traction motor and auxiliary converter etc. of EMU rolling stock (relevant International Standards).
- 4. Testing and commissioning of Propulsion system including HV power collection, transformer, traction converter, traction motor and auxiliary converter etc. of EMU rolling stock (relevant International Standards).
- 5. Speed vs Tractive Effort curve, Regenerative Braking, Power requirement & efficiency, Jerk, EMI/EMC, Temperature rise of electrical equipment etc. concepts (relevant International standards).

<u>Syllabus for Assistant Manager (Rolling Stock – Mechanical)</u> <u>Vacancy Notice No. 12/2023</u>

Domain Knowledge

≈ **70%**

30%

- 1. General aspects of Railways such as infrastructure jargons, grades of automation, certification procedure of metros, project phases, etc.
- 2. Basic understanding of EMU type Rolling Stock such as integration of systems, subsystems and nomenclature of equipment.
- 3. Bogie system parts i.e. Bogie frame, Suspension, Wheel, Axle, Bearing, Centre pivot etc. material, function, design (Relevant International Standards) of EMU rolling stock.
- 4. Pneumatic System Different type of Brakes in Rolling Stock, Adhesion, Slip-Slide, Brake blending etc concepts (relevant International Standards) of EMU rolling stock.
- 5. Rail vehicle dynamics Ride Index, Derailment coefficient, Wheel off-loading, Vibration etc. (relevant International Standards) of EMU rolling stock.
- 6. Pantograph mechanical design (relevant international Standards) of EMU rolling stock.
- 7. Testing and commissioning w.r.t. Bogie, Brake, pneumatic system; Oscillation trials, Emergency braking distance (EBD) of EMU rolling stock.

<u>Syllabus for Assistant Manager (Rolling Stock Depot – Electrical)</u> <u>Vacancy Notice No. 13/2023</u>

Domain Knowledge

≈ **70%**

- 1. Facilities, including the M&Ps, and their upkeep/maintenance in modern Depots/ Workshop for Railway/ Metro
- 2. Modern state-of-the art Depot/ Workshop for Railway/ Metro.
- 3. Commissioning and testing of Rolling Stock
- 4. Commissioning and testing of Depot facilities and M&Ps.
- 5. Functioning of modern depots for railway/ metro
- 6. Standards and specifications, statutory compliances, etc. pertaining to Depots/ Workshop for Railway/ Metro
- 7. Type tests, Routine tests, Factory Acceptance Tests, etc.
- 8. Engineering measurements and metrology, various types of drives, power and control systems, MV/ LV power supply, electrical circuits, HV & insulation testers, cables, relays & contactors, batteries, environment control/ HVAC systems, cranes & hoists, traversers, induction heaters, various types of sensors and actuators.

<u>Syllabus for Assistant Manager (Rolling Stock Depot – Mechanical)</u> <u>Vacancy Notice No. 14/2023</u>

Domain Knowledge

≈ **70%**

- 1. Facilities, including the M&Ps, and their upkeep/maintenance in modern Depots/ Workshop for Railway/ Metro
- 2. Modern state-of-the art Depot/ Workshop for Railway/ Metro.
- 3. Commissioning and testing of Rolling Stock
- 4. Commissioning and testing of Depot facilities and M&Ps.
- 5. Functioning of modern depots for railway/ metro
- 6. Standards and specifications, statutory compliances, etc. pertaining to Depots/ Workshop for Railway/ Metro.
- 7. Type tests, Routine tests, Factory Acceptance Tests, etc.
- 8. Theory of machines, engineering measurements and metrology, common industrial machines & tools, industrial automation and robotic applications, NC/ CNC machines, welding equipment, wheel press, cranes & hoists, traversers, PLC, various types of drives, pneumatics/ hydraulic systems, various types of sensors and actuators.

Syllabus for Manager (Database Administrator) Vacancy Notice No. 15/2023

$\underline{Domain\ Knowledge}\approx70\%$

Item	Description
Oracle Application Installation & Administration	Implementation, Configuration, Maintenance, Troubleshooting and Upgrade of Oracle Applications R12 or later on Enterprise Linux/UNIX/AIX. Oracle Applications Database in 12.x and 19.x or higher versions. Architecture understanding, analysis and solving issues across multiple layers of the stack. AWR and ADDR reporting and required system analysis.
Middleware Components	Middleware components like Oracle WebLogic server, OID etc
Backups, Recovery, tuning, Database design	Oracle RDBMS internals, Backup & Recovery using RMAN Performance tuning, security configurations, logical and physical design of database of Enterprise environment and supporting critical production databases and applications and manage large databases. Installing, configuring, upgrading and administering different versions of Oracle Database, Automatic storage management, Disaster Recovery site. Upgrade and database migration from one platform to another using various tools like Oracle Data Pump, RMAN and TTS/XTTX. Managing Oracle Enterprise Manager. Replication Technologies, knowledge of SAN/CAS, Database performance tuning etc. Troubleshooting memory related errors with Oracle 12c/19.x and Patching with RAC and Non RAC
Other areas	Understanding Shell scripting, PL/SQL, software networking, SSL/TLS certificate deployment

Syllabus for DGM (Tack) Vacancy Notice No. 16/2023

Domain Knowledge

≈ **70%**

1. Surveying: -

Tachometric surveying, GPS and GIS, Latest Surveying instruments and methods, Practical field applications in curve setting, alignment fixing etc.,

2. Construction technology: -

Concrete Mix design, High Performance concretes, Construction Equipment for Track works, inspection and testing of track materials, Quality control, Quality Assurances, Quality Certification, Safety in Constructions.

3. Railway Track: -

Basics of railway track, gauge, horizontal & vertical curve design, maximum permitted speed, track components like rail, turnout, crossover, expansion joints, insulation joints, Rail fasteners etc., Rail welding (AT, FBW), testing and tolerances, distressing, USFD testing, Track parameters measurement and index for monitoring, Rail grinding.

4. Ballested & Ballastless track: -

Difference in both types of tracks, various types of ballastless tracks.

5. Project management and Scheduling: -

Basic forms of organisation, Project feasibility Repots, Role of Project Management consultant. Scheduling, Software in Constructions scheduling (MSP, Primavera, Construction Manager)

6. Contracts: -

Tendering process, Contract management, Responsibilities (Duties and Liabilities) of Employer, Engineer & Contractor, Settlement of claims – Advances, Bills, Extension for time, Variations, Cost Escalations, Liquidated Damages, Penalties, Statutory Requirements. Breach of contract, Dispute resolution, FIDIC conditions of contracts.

General Awareness, English, Reasoning

≈

Syllabus for DGM (HR) Vacancy Notice No. 17/2023

Domain Knowledge

70%

Item	Description
Human Resource	Human Resource Planning.
Management	Job Analysis & Job Description.
	Reservation Policies & Relaxations.
	Deputation / Absorption.
	Board level Appointments.
Wage & Establishment	Pay Revision – IDA, CDA
Policies	Dearness Allowance, HRA
	Allowances & Perquisites.
	Leave Rules, TA Rules
Human Resource	Training need analysis.
Development	Types of training.
	Training & Development analysis.
	Types of Performance Appraisals.
	Rules related to APAR/ACR,
	SPARROW.
Human Resource	Database Management, Time & Labour
Information Systems	Management, Payroll Functions, Employee
	Interface, HR Analytics.
Organizational Behaviour	Individual, Group & Team Behaviours.
	Motivational Theories.
	Leadership Theories.
Industrial Relations	Negotiations & collective settlements.
	Industrial Disputes.
Labour & Other	Industrial Disputes Act, Factories Act,
Legislations	Contract Labour (R&A) Act, Trade Unions Act
	EPF Act, ESI Act, Payment of Gratuity Act,
	POSH Act, RTI Act, New Labour Codes.
Conduct Rules	Conduct, Discipline & Appeal Rules

Syllabus for Manager (HR) Vacancy Notice No. 18/2023

Domain Knowledge $\approx 70\%$

Item	Description
Human Resource	Human Resource Planning.
Management	Job Analysis & Job Description.
	Recruitment, Selection & Placement.
	Planning & Staffing.
	Deputation / Absorption.
	Board level Appointments.
Wage & Establishment	Pay Revision – IDA, CDA
Policies	Dearness Allowance, HRA
	Allowances & Perquisites.
	Leave Rules, TA Rules
Human Resource	Training need analysis.
Development	Types of training.
	Training & Development analysis.
	Types of Performance Appraisals.
	Rules related to APAR/ACR,
	SPARROW.
Human Resource	Database Management,
Information Systems	Employee Interface,
	HR Analytics.
Organizational Behaviour	Individual, Group & Team Behaviours.
	Motivational Theories.
	Leadership Theories.
Industrial Relations	Negotiations & collective settlements.
	Industrial Disputes.
Labour & Other	Industrial Disputes Act, Factories Act,
Legislations	Contract Labour (R&A) Act, Trade Unions Act
	EPF Act, ESI Act, Payment of Gratuity Act,
	POSH Act, RTI Act.

Syllabus for Junior Manager (HR) Vacancy Notice No. 19/2023

Domain Knowledge $\approx 70\%$

Item	Description
Human Resource	Human Resource Planning.
Management	Job Analysis & Job Description.
	Recruitment, Selection & Placement.
	Planning & Staffing.
Wage & Establishment	Pay Revision – IDA, CDA
Policies	Dearness Allowance, HRA
	Allowances & Perquisites.
	Leave Rules, TA Rules
Human Resource	Training need analysis.
Development	Types of training.
	Training & Development analysis.
	Types of Performance Appraisals.
Human Resource	Database Management,
Information Systems	Employee Interface,
	HR Analytics.
Organizational Behaviour	Individual, Group & Team Behaviours.
	Motivational Theories.
	Leadership Theories.
Industrial Relations	Negotiations & collective settlements.
	Industrial Disputes.
Labour & Other	Industrial Disputes Act, Factories Act,
Legislations	Contract Labour (R&A) Act, Trade Unions Act,
	EPF Act, ESI Act, Payment of Gratuity Act,
	POSH Act, RTI Act.

Syllabus for Manager (Finance) Vacancy Notice No. 20/2023

Domain Knowledge

≈ 70%

A. Accounting and Auditing:

- i. Knowledge of Indian Accounting Standards (Ind AS), and Standards on Auditing (SAs) issued by ICAI.
- ii. Knowledge of provisions of Companies Act, 2013 including Corporate Governance.
- iii. Meaning and Scope of Accounting, Accounting Principles and Standards, Journalising Transactions, Ledger Posting and Trial Balance, Capital and Revenue earning and expenditure, Accounting Concept of Income, Depreciation Provisions and Reserves.

B. Direct Taxes: Income Tax Act, 1961

- i. Knowledge of Income Tax provisions for individuals and Corporates.
- ii. TDS deductions/TCS collections and payments.
- iii. TDS quarterly returns and issue of Form 16 & Form 16A.
- iv. Tax Audit and filling of Income Tax Returns.
- v. Procedure for International Payments for Services and Supplies.
- vi. Documents and Certifications required for International payments.
- vii. Advance tax & Minimum Alternate Tax (MAT) provisions.

C. Indirect Taxes: GST Act, 2017

- i. Knowledge of GST and its applicability.
- ii. Reverse Charge Mechanism.
- iii. Input Tax Credit.
- iv. Filling of Monthly, Quarterly and Annual Returns.
- v. GST Audit provisions.

D. Treasury Functions:

- i. Negotiable Instruments Act, 1881
- ii. The Foreign Exchanges and management Act, 1999

E. Ratio Analysis

F. Project Appraisal

i. Knowledge of Project Appraisal like DCF, IRR, PV and ability to use spreadsheet for such appraisal, Concept of discount rates, adjusted NPV, adjusted IRR, MIRR etc.

G. Miscellaneous

- i. Concept of budgeting, variances, analysis of variances
- ii. Fund forecasting, Working knowledge of MS-Office & Internet Tools.
- iii. Government and Business interfaces

Syllabus for Assistant Manager (Finance) Vacancy Notice No. 21/2023

Domain Knowledge

× 70%

A. Accounting and Auditing:

- i. Knowledge of Indian Accounting Standards (Ind AS), and Standards on Auditing (SAs) issued by ICAI.
- ii. Knowledge of provisions of Companies Act, 2013 including Corporate Governance.
- iii. Meaning and Scope of Accounting, Accounting Principles and Standards, Journalising Transactions, Ledger Posting and Trial Balance, Capital and Revenue earning and expenditure, Accounting Concept of Income, Depreciation Provisions and Reserves.

B. Direct Taxes: Income Tax Act, 1961

- i. Knowledge of Income Tax provisions for individuals and Corporates.
- ii. TDS deductions/TCS collections and payments.
- iii. TDS quarterly returns and issue of Form 16 & Form 16A.
- iv. Tax Audit and filling of Income Tax Returns.
- v. Procedure for International Payments for Services and Supplies.
- vi. Documents and Certifications required for International payments.
- vii. Advance tax & Minimum Alternate Tax (MAT) provisions.

C. Indirect Taxes: GST Act, 2017

- i. Knowledge of GST and its applicability.
- ii. Reverse Charge Mechanism.
- iii. Input Tax Credit.
- iv. Filling of Monthly, Quarterly and Annual Returns.
- v. GST Audit provisions.

D. Treasury Functions:

- i. Negotiable Instruments Act, 1881
- ii. The Foreign Exchanges and management Act, 1999

E. Ratio Analysis

F. Project Appraisal

i. Knowledge of Project Appraisal like DCF, IRR, PV and ability to use spreadsheet for such appraisal, Concept of discount rates, adjusted NPV, adjusted IRR, MIRR etc.

G. Miscellaneous

- i. Concept of budgeting, variances, analysis of variances
- ii. Fund forecasting, Working knowledge of MS-Office & Internet Tools.
- iii. Government and Business interfaces

Syllabus for Junior Manager (Finance) Vacancy Notice No. 22/2023

Domain Knowledge

≈ 70%

A. Accounting and Auditing:

- i. Meaning and Scope of Accounting, Accounting Principles and Standards, Journalising Transactions, Ledger Posting and Trial Balance, Capital and Revenue earing and expenditure, Accounting Concept of Income, Depreciation Provisions and Reserves
- ii. Basic knowledge of Indian Accounting Standards (Ind AS), and Standards on Auditing (SAs) issued by ICAI.

B. Direct Taxes: Income Tax Act, 1961

- i. Basic Income Tax provisions for individuals and Corporates.
- ii. TDS deductions/TCS collections and payments.

C. Indirect Taxes: GST Act, 2017

- i. Basic Knowledge of GST and its applicability.
- ii. Reverse Charge Mechanism.
- iii. Input Tax Credit.

D. Treasury Functions:

- i. Negotiable Instruments Act, 1881
- ii. The Foreign Exchanges and management Act, 1999

E. Miscellaneous

- i. Concept of budgeting
- ii. Fund management
- iii. Knowledge of MS-Office & Internet Tools.

Syllabus for Senior Manager (Architecture) Vacancy Notice No. 24/2023

Domain Knowledge

≈ **70%**

Item	Description
Architecture and	Planning and design considerations for different building types,
Design	Anthropometrics, Site planning, Barrier-free design, Circulation-
	horizontal and vertical, Space Standards, National Building Code
	and Building Bye-laws.
Transit Architecture	Passenger flow, circulation areas, Station Egress Capacity,
	Design Calculations, SOD's and other design parameters
Building Materials,	Behavioural applications and characteristics of various building
Construction &	materials, Fire resistance and Ratings, Low VOC, Estimation,
Management	Specification, professional practice, Project management
	techniques, Construction planning and equipment e.g. CPM, PERT
	etc.
Environmental	Green Building- Concepts & Rating, ECBC, Climate responsive
Planning & Design	design, Solar architecture, IGBC Certification
Urban Design	Site planning, Landscape design, Development controls- FAR,
***	densities, building byelaws
Urban Planning &	Residential densities, Standards for housing and community
Housing	facilities.
	Types of plans - City Development Plan, Master Plan, Structure
	Plan, Action Area Plan, Zonal Plan, Town Planning Scheme,
	Emerging concepts of cities - Smart City, Eco-City, SEZ
	Transit Oriented Development (TOD) and SRZ
	Sustainable urban development
Building Services	Basic Concepts of the following:
	Plumbing and Fire Fighting systems
	Electrical and Mechanical systems
	Fire Alarm and Detection systems
	Tele-communication systems
	Signaling Systems
	Escalator, Lifts and Travellators
Software Skills	Auto CAD 2D, MS Office, Adobe -Photoshop and PDF, Revit,
	Navisworks and other BIM software
Contract Management	Contract Management, FIDIC, EPC, etc

Syllabus for Manager (Architecture) Vacancy Notice No. 25/2023

Domain Knowledge

Item	Description
Architecture and	Planning and design considerations for different building types,
Design	Anthropometrics, Site planning, Barrier-free design, Circulation-
	horizontal and vertical, Space Standards, National Building Code
	and Building Bye-laws.
Transit Architecture	Passenger flow, circulation areas and Egress Capacity calculations
Building Materials,	Behavioural applications and characteristics of various building
Construction &	materials, Fire resistance and Ratings, Low VOC, Specifications
Management	
Environmental	Green Building- Concepts & Rating, ECBC, Climate responsive
Planning & Design	design, Solar architecture.
Urban Design	Site planning, Development controls norms and building byelaws, Transit Oriented Development (TOD), Design of road
	intersections, parking norms
	Integration of various Transportation modes, urban form inter-
	relationships, Design of road intersections, parking areas
	Mass Rapid transport systems, Pedestrian and Non-Motorized
	infrastructure.
Urban Planning &	Residential densities, Standards for housing and community
Housing	facilities.
	Types of plans - City Development Plan, Master Plan, Structure
	Plan, Action Area Plan, Zonal Plan, Town Planning Scheme,
	Emerging concepts of cities - Smart City, Eco-City, SEZ
	Transit Oriented Development (TOD) and SRZ
	Sustainable urban development
Building Services	Basic Concepts of the following:
	Plumbing and Fire Fighting systems
	Electrical and Mechanical systems
	Fire Alarm and Detection systems
	Tele-communication systems
	Signaling Systems
	Escalator, Lifts and Travellators
Software Skills	AutoCAD 2D, MS Office, Adobe -Photoshop and PDF, Revit,
	Navisworks and other BIM software

Syllabus for Assistant Manager (Architecture) Vacancy Notice No. 26/2023

Domain Knowledge

Item	Description
Architecture and	Planning and design considerations for different building types,
Design	Anthropometrics, Site planning, Barrier-free design, Circulation-
	horizontal and vertical, Space Standards, National Building Code
	and Building Bye-laws.
Transit Architecture	Passenger flow, circulation areas and Egress Capacity calculations
Building Materials,	Behavioural applications and characteristics of various building
Construction &	materials, Fire resistance and Ratings, Low VOC, Specifications
Management	
Environmental	Green Building- Concepts & Rating, ECBC, Climate responsive
Planning & Design	design, Solar architecture.
Urban Design	Site planning, Development controls norms and building byelaws, Transit Oriented Development (TOD), Design of road
	intersections, parking norms
	Integration of various Transportation modes, urban form inter-
	relationships, Design of road intersections, parking areas
	Mass Rapid transport systems, Pedestrian and Non-Motorized
	infrastructure.
Urban Planning &	Residential densities, Standards for housing and community
Housing	facilities.
	Types of plans - City Development Plan, Master Plan, Structure
	Plan, Action Area Plan, Zonal Plan, Town Planning Scheme,
	Emerging concepts of cities - Smart City, Eco-City, SEZ
	Transit Oriented Development (TOD) and SRZ
	Sustainable urban development
Building Services	Basic Concepts of the following:
	Plumbing and Fire Fighting systems
	Electrical and Mechanical systems
	Fire Alarm and Detection systems
	Tele-communication systems
	Signaling Systems
	Escalator, Lifts and Travellators
Software Skills	AutoCAD 2D, MS Office, Adobe -Photoshop and PDF, Revit,
	Navisworks and other BIM software