

Syllabus for CAD Designer
Vacancy Notice No. 08/2020

Domain Knowledge

≈ 70%

- 1) **AutoCAD** :- Basic drawings Commands i.e. drawing object, construction lines etc; Setting drawing limits and drafting settings Basic edit Commands including Edit objects etc.; Inquiry Commands like id, list, dist, area etc; Layer management & property Manager; Creating and editing text; Concept of layout management; Dimensioning; Editing entities; Hatching utility; Blocks and symbol library; Additional drawing object; Template creations; Multiline; Wipe out; Revision cloud; Controlling dimensioning styles & dimensioning in paper space; Dynamic blocks; Tools palettes; External references viz. Xref, Xbind, Reedit, xclip, xplode etc; Fields and Fields customization; Tables; Working with layout; Plotting viz plot configuration, plotstyle manager, plot, eplot, batch plot, Sheet set manager; Custom toolbars, menus; palettes; Customs linetypes and hatches; Custom shapes and fonts; Workspaces; Loading routines and applications; Drawing maintenance & recovery; Using backup drawing; Migration; Compatibility with previous releases; AutoCAD options settings; Creating profiles; Collaboration concepts; Publish to Web; Markups; CAD Standards; standard file checking; Layer translator; working with external databases; Linking data to drawing objects; Working with query files.

- 2) Working on MS office (Power point Presentation, MS Word/ Excel), Adobe photoshop etc.

General Awareness, English, Reasoning

≈ 30%

Syllabus for Assistant Manager (Finance)
Vacancy Notice No. 12/2020

Domain Knowledge ≈ **70%**

A. Direct Taxes:

Income Tax Act, 1961:

- i. Working knowledge of Basic 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.

B. Indirect Taxes:

i. GST Act, 2017

- a. Working Knowledge of GST and its applicability.
- b. Reverse Charge Mechanism.
- c. Input Tax Credit.
- d. Filling of Monthly, Quarterly and Annual Returns.
- e. GST Audit provisions.

ii. Working knowledge of provisions of Customs Act 1962.

iii. Basic understanding of Foreign Exchange & Management Act 1999.

C. Accounting and Auditing:

- i. Basic knowledge of Indian Accounting Standards (Ind AS), and Standards on Auditing (SAs) issued by ICAI.
- ii. Basic 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.

D. Business Maths:

- i. Ratio, Proportion and Percentage, Profit And Loss, Interest, Shares and dividends, Matrices And Determinants, Permutations and Combinations, Population and Sample, Measures of Central Tendency, Measures of Dispersion, Correlation and Regression, Linear Programming problem, Transportation problem

E. Project Appraisal

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

F. Miscellaneous

- a. Concept of budgeting, variances, analysis of variances
- b. Estimation of budgets, fund forecasting,
- c. Creating and working on documents in MS Word, Excel, Power point software
- d. Financial Control Functions
- e. Government and Business interfaces

General Awareness, English, Reasoning ≈ **30%**

Remote Sensing

Introduction, Principles of remote sensing, Digital image processing, Global Positioning system, Remote sensing satellites and their data products, concept of remote sensing in identification of land features from space and to get introduced to different data acquisition techniques like LIDAR, RADAR To get introduced to the field of geodesy, coordinate systems, Map projections.

Geographical Information System (GIS)

Definition of GIS, Key Components of GIS, Functions of GIS, Spatial data, spatial information system Geospatial analysis, Integration of Remote sensing and GIS and Applications in Civil Engineering.

Global Positioning System (GPS)

Introduction, principle and applications of GPS in different fields of Surveying, data collection, data processing and analysis.

Control and Detail Survey by GPS and Total Station

Horizontal and Vertical control surveys; construction applications: grade, highway, Railways Project Surveys:

General requirements and specifications for Engineering project surveys, Reconnaissance, Preliminary and Location surveys for highways and railways, Correlation of surface and underground surveys in case of culverts, Bridges and Tunnels; Principles and practice of hydrographic surveys, Cadastral survey. Co-ordinate systems, Spherical trigonometry, Relationship between coordinates.

Setting out of Works: Building, Culvert, Bridge, Rail alignment- Straight, circular curve, transition curve, curve apex, Foundation, Pile, Pier Cap, Bearing level.

General Awareness, English, Reasoning

≈ 30%