

## **Selection Process for the post of Database Administrator, Developer & ERP Head on contract basis**

(Staff Recruitment Advt. No: IITDh/ Admin/SR/37/2025-26 dated 1<sup>st</sup> September 2025)

All shortlisted candidates for the below positions are required to appear in person for the Selection Process on **24<sup>th</sup> November 2025** at IIT Dharwad.

Position	Selection Process
Database Administrator	Written Test followed by Interview
Developer	
ERP Head	Interview only

### **For Database Administrator and Developer** **Written Test (MCQ Type)**

Section	Topics/Subjects	No. of Questions	Total Marks	Time Duration
1	Technical	100	100	120 Minutes

*Note: 0.25 Negative Marks for every wrong answer MCQ test.*

Candidates securing minimum qualifying marks as laid down by the selection committee in Written Test shall be shortlisted for Interview. The final selection will be based on aggregate marks obtained from the Written Test and Interview.

### **Syllabus:**

Section	Broad syllabus
1	<p><b>A. Developer</b></p> <p><i>Analytical thinking</i></p> <p><i>Programming &amp; Scripting</i></p> <ul style="list-style-type: none"> <li>• Core programming principles (loops, conditions, functions, OOP concepts).</li> <li>• Error handling, debugging, and optimization.</li> </ul> <p><i>HTML and CSS</i></p> <ul style="list-style-type: none"> <li>• Basic structure of HTML, formatting and content, Lists, Navigations, Forms and User inputs</li> <li>• Box model, flexbox, grid layout, responsive design, media queries.</li> </ul> <p><i>JavaScript</i></p> <ul style="list-style-type: none"> <li>• Data types, variables, functions, scope</li> <li>• Event handling.</li> <li>• Error handling and debugging.</li> </ul> <p><i>Database &amp; SQL</i></p> <ul style="list-style-type: none"> <li>• SQL queries (SELECT, INSERT, UPDATE, DELETE).</li> <li>• Joins, subqueries, indexes.</li> <li>• Stored procedures and triggers.</li> <li>• Database schema design concepts (tables, relationships, normalization [1NF to 5NF]).</li> <li>• PL/SQL basics</li> <li>• Views</li> </ul>

	<ul style="list-style-type: none"> <li>• ACID properties</li> <li>• Concurrency Control</li> <li>• Triggers</li> </ul> <p><i>Low-Code / No-Code Platforms</i></p> <ul style="list-style-type: none"> <li>• Building simple workflows, forms, and dashboards.</li> <li>• Integration with databases</li> </ul> <p><i>React JS</i></p> <ul style="list-style-type: none"> <li>• Basics, Components in React, Forms and User Input, Integrations</li> </ul> <p><b>B. <u>ERP</u></b></p> <p><i>Process and Business Foundations</i></p> <ul style="list-style-type: none"> <li>• Overview of enterprise systems</li> <li>• End-to-end core business process flows, Finance &amp; statutory compliance</li> <li>• Performance measurement</li> </ul> <p><i>ERP Lifecycle &amp; Methodology</i></p> <ul style="list-style-type: none"> <li>• Implementation lifecycle, Roles &amp; responsibilities</li> <li>• Documentation practices</li> <li>• Data migration &amp; conversion</li> </ul> <p><i>Architecture Understandings</i></p> <ul style="list-style-type: none"> <li>• Database Architecture with fundamental concepts and management of Database</li> <li>• ERP system architecture- client server model</li> <li>• Configurations, software security</li> </ul> <p><i>Academic Institution business model understanding</i></p> <p><i>Understanding and fundamentals of Integration tools and API</i></p> <p><b>C. <u>Database Administrator</u></b></p> <ul style="list-style-type: none"> <li>• Database Performance Tuning</li> <li>• Database backup and recovery</li> <li>• DDL/DML/DCL</li> <li>• Managing User access and Security</li> <li>• Introduction to network administration</li> </ul>
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