IBPS RRB IT Officer Syllabus

The selection process includes a single online examination followed by an interview round. The IBPS RRB IT Officer exam is for candidates with professional knowledge and experience in Information Technology. The online examination will test the candidate's knowledge in the following areas:

1. Professional Knowledge
2. Reasoning
3. Financial Awareness
4. English Language / Hindi Language (choice)
5. Computer Knowledge
6. Quantitative Aptitude & Data Interpretation

Section	Topics Covered
Professional Knowledge (Computer/IT)	Operating System: System Calls, Multithreading Programming, Process Concept & Scheduling, Deadlock & Synchronization, Indexes and Sequences, Memory Management Concepts, File System, System Protection, Cryptography, Secondary Storage
	DBMS (Database Management System): Database Models, Difference between File System and RDBMS, Normalization, Keys & Constraints, Transactions & Concurrency Control Management, E-R Diagram, Routing, View, and Trigger, Cursors, SQL Queries, Recovery & Backup, Data Dictionary, Data Warehouse, Data Mining
	Data Communication & Networking: OSI Model and Protocols, Types of Networks & Network Devices, Network Models, Error Detection & Correction, TCP/IP Three-Way Handshake, Transmission Media, IP Addressing, CSMA/CD & CSMA/CA, Network Switching, DNS, Firewalls, Network Security, IEEE Standards
	Data Structures: Array, Stack, Linked List, Queue, Tree, Graph, Time Complexity, Space Complexity
	Object-Oriented Programming (OOPS): Introduction to OOPS, Classes & Methods, Encapsulation, Abstraction, Polymorphism, Inheritance
	Compiler Design: Linker & Loader, Phases of Compilation, Lexical Analysis, Parsing Theory, Code Optimization, Intermediate Code Generation, Decision Making in C
	Programming in C: Keywords, Format Specifiers, Data Types, Variables & Constants, Operators, Loops, Break, Continue, Go Statement, Arrays & Strings, Functions & Recursion, Pointers, Structures & Unions, File I/O, Dynamic Memory Allocation, C Preprocessor
	Software Engineering: Software Process, SDLC Models, Debugging, Cohesion & Coupling, Software Testing, PHP

Section	Topics Covered
	Basics, Pipelining Concepts
	Web Technology: Web Design Principles, HTML, CSS, JavaScript, XML, Priority Interrupt, Memory Organization
	Computer Architecture: CPU Organization, General Register Organization, Interrupts, Modes of Data Transfer, Instruction & Program Control, Virtual Memory
Reasoning Ability	Puzzles (Seating Arrangement: Circular, Linear, Direction-based, Miscellaneous), Number Series, Coding-Decoding, Blood Relations, Analogy, Syllogism, Alphabet Test, Ranking & Time, Causes & Effects, Direction Sense, Statement & Assumption, Assertion & Reasoning, Statement & Conclusion, Statement & Arguments, Figure Series, Word Formation
Quantitative Aptitude & Data Interpretation	Number System, Data Interpretation (Bar Graph, Line Graph, Pie Chart, Tabular Data), HCF & LCM, Profit & Loss, Simple & Compound Interest, Time & Work, Time & Distance, Averages, Ratio & Proportion, Percentage, Mensuration, Simplification & Approximation, Partnership, Case Studies, Probability, Permutation & Combination
English Language / Hindi Language	**English:** Reading Comprehension, Grammar & Usage, Spotting Errors, Fill in the Blanks, Sentence Improvement, Jumbled Sentences, Cloze Test, Vocabulary (Antonyms, Synonyms, Idioms & Phrases, One-word Substitution) **Hindi:** व्याकरण (Grammar), गद्यांश (Reading Comprehension), वाक्य सुधार (Sentence Correction), वर्तनी की अशुद्धियाँ (Spotting Errors), पर्यायवाची/विलोम शब्द (Synonyms & Antonyms), मुहावरे और वाक्यांश (Idioms & Phrases), रिक्त स्थान की पूर्ति (Fill in the Blanks)
Financial Awareness	Current Affairs related to Finance & Banking, Monetary Policy & Fiscal Policy, Union Budget & Economic Survey, Indian Banking & Financial Reforms, Types of Bank Accounts & Deposits, Loans & Advances, Non-Performing Assets (NPA), Risk Management in Banks, BASEL Norms (I, II, III), Regulatory Bodies – RBI, SEBI, NABARD, IMF, World Bank, etc.
Professional Knowledge (Advanced IT/Computer)	Computer Architecture & Organization, Database Management System (DBMS), Data Structures & Algorithms, Operating Systems (Windows, Linux, UNIX), Computer Networks (LAN, WAN, Internet Protocols), Software Engineering Concepts, Programming Languages (C, C++, Java, Python, etc.), Web Technologies (HTML, XML, JavaScript, Networking Basics), Cyber Security, Cryptography & Network Security, Cloud Computing & Virtualization, Mobile Technologies, Information Systems & SDLC, Data

Section	Topics Covered
	Warehousing & Data Mining, Big Data, Artificial Intelligence, Machine Learning (Basics), Digital Payment Systems, Core Banking Solutions, Recent Trends in IT & Banking Technology