

Paper I

Rajasthan RPSC Programmer Syllabus 2024

Reasoning, Numerical Analysis, General Knowledge:

- Problem solving
- Data Interpretation
- Data Sufficiency
- Logical Reasoning and Analytical Reasoning
- General Knowledge and Current Affairs relating to India and Rajasthan

Data Base Management Systems:

- ER Diagram
- Data models: Relational and Object Oriented databases
- Conceptual database design, Normalization
- Primitive and Composite data types
- Physical and logical databases
- Data abstraction and data independence
- Data aggregation and Relational Algebra
- Application Development using SQL
- Internal of RDBMS

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Data Communication and Computer Networks:

- Computer Network Architecture
- Circuit switching, Packet And Message Switching
- Network Structure
- Physical Layer, Data Link Layer, Framing
- Retransmission algorithms
- Multiple access and Aloha
- CSMA/CD and Ethernet
- High-Speed LANs and topologies
- Broadcast routing and spanning trees
- TCP/IP Stack, IP Networks, and Internet
- DNS and Firewalls
- Intrusion Detection and Prevention
- Transport layer and TCP/IP
- Network Management And Interoperability

Paper II

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System Analysis and Design:

- System concept and characteristics
- System development lifecycle
- Feasibility study, prototyping
- Role of system analyst
- System planning and tools (DFD, data dictionary, decision trees, etc.)
- IPO charts, structured walkthrough
- Input-output form design, requirement and classification of forms
- Object-oriented Design Concepts and methods
- Software Life Cycle, Software Engineering paradigms
- System analysis, feasibility study, requirement analysis, Cost-benefit analysis
- Planning systems, Analysis tools, and techniques
- System Design: design fundamentals, Modular Design, Data and procedural design, object-oriented design
- System Development: Code documentation, Program design paradigms, Efficiency Consideration
- Verification, Validation and Testing: testing methods, Formal Program Verification, Testing Strategies
- Software Maintenance: Maintenance Characteristics, Maintainability, Maintenance tasks, and side effects

Paper II

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Programming Concepts:

- Introduction to Internet and Java as a tool for internet applications
- Byte Code and its advantages
- Object-Oriented Programming and Design
- Java Programming Basics
- Java Object-Oriented Concepts
- Arrays-Programming with arrays, arrays of classes, arrays as function arguments, Strings, Multidimensional arrays, Arrays of strings, vectors, Base classes
- Introduction to JSP, RMI, Java Applets, and servlets
- Introduction to DotNet framework and visual programming interface