

RPSC ACF And Forest Range Officer COMPUTER ENGINEERING Syllabus 2022

Introduction:-

हमारे द्वारा Rajasthan Public Service Commission (RPSC) ACF And Forest Range Officer भर्ती के बारे में विस्तार से जानकारी दी गई अगर आप राजस्थान RPSC ACF And Forest Range Officer परीक्षा की तैयारी कर रहे हो तो पोस्ट आपके लिए अति महत्वपूर्ण है इस आर्टिकल में RPSC ACF And Forest Range Officer सिलेबस के बारे में जानकारी दी गई है साथ ही आप अपने सब्जेक्ट के अनुसार नीचे दी गई लिंक के द्वारा PDF डाउनलोड कर सकते हैं वे उम्मीदवार जिन्होंने इसका ऑनलाइन आवेदन किया है उनके लिए निम्नतम एग्जाम पैटर्न दिया गया है जो आपके लिए तैयारी करने में काम आएगा।

NAME OF SELECTION BOARD	Rajasthan Public Service Commission
POSTS NAME	RPSC ACF And Forest Range Officer
OFFICIAL WEBSITE	Rpsc.rajasthan.gov.in/
Category	Latest Syllabus
EXAM DATE	Coming soon

RPSC ACF And Forest Range Officer Exam Pattern:-

Paper	Subjects	Question Number	Marks
1	General Knowledge	100	100
2	General English	100	100
3	OPTIONAL SUBJECT - I	120	200
4	OPTIONAL SUBJECT - II	120	200

5	Interview	75
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RPSC ACF And Forest Range Officer COMPUTER ENGINEERING Syllabus 2021 Topc Wise

OPTIONAL SUBJECT - COMPUTER ENGINEERING

1. Computer Architecture :

- Propositional (Boolean) Logic, Predicate Logic, Well-formed formulae(WFF), Satisfiability and Tautology. Logic Families, Boolean algebra and Minimization of Boolean functions.Flip-flops-types.
- Combinational Circuit Design, Sequential Circuit Design, Hardwired and Micro Programmed processor design, Instruction formats,
- Addressing modes, Memory types and organization, Interfacing peripheral devices, Interrupts, cache memory, I/O interface (interrupt and DMA mode).

2. Data Base :

- Database Concepts, ER diagrams, Data Models, Design of Relational Database,Data Definition Language (DDL), Data Manipulation Language (DML), Data Control Language (DCL) commands.
- Database objects like-Views, indexes, sequences, synonyms, data dictionary. Normalization, Query Processing and Optimization, Centralized and Distributed Database, Security,
- Concurrency and Recovery in Centralized and Distributed Database Systems, Object Oriented Database Management Systems,SQL Commands and Query, SQL. Integrity constraints.

3. Programming in C and C ++ :

- Programming in C: Elements of C-Tokens, identifiers, data types in C.
- Control structures in C. Sequence, selection and iteration. Structured datatypes in C-arrays, struct, union, string, and pointers. O-O Programming Concepts: Class, object, instantiation.
- Inheritance, polymorphism and overloading. C ++ Programming: Elements of C ++ Tokens, identifiers. Variables and constants,
- Datatypes, Operators, Control statements. Functions parameter passing. Class and objects.Constructors and destructors.
- Overloading, Inheritance, Templates, Exception andling. Arrays, stacks, queues, linked lists, trees,graphs, priority queues and heaps.
- File Structures: Fields, records and files. Sequential, direct, index-sequential and relative files. Hashing, inverted lists and multi-lists. B trees and B + trees.

4. Algorithms :

- Searching, sorting, hashing. Asymptotic worst case time and space complexity. Algorithm design techniques: greedy, dynamic programming and divide-and-conquer. Sorting and Searching
- Algorithms, Analysis of Algorithms, Interpolation and Binary Search, Asymptotic notations-big ohm, omega and theta. Average case analysis of simple programs like finding of a maximum of n elements. Recursion and its systematic removal. Quick sort - Non recursive implementation with minimal stack storage.
- Design of Algorithms (Divide and Conquer, Greedy method, Dynamic programming, Back tracking, Branch and Bound).
- Lower bound theory, Non-deterministic algorithm-Non-deterministic programming constructs. Simple non-deterministic programs. NP-hard and NP-complete problems. Graph search, minimum spanning trees, shortest paths.

5. Computer Networks :

- Network fundamentals: Local Area Networks (LAN), Metropolitan Area Networks (MAN), Wide Area Networks (WAN), Wireless Networks, Inter Networks
- .Reference Models: The OSI model, TCP/IP model. Data Communication: Channel capacity. Transmission media-twisted pair, coaxial cables, fibre-optic cables, wireless transmission-radio, microwave, infrared and millimeter waves.
- Light wave transmission. Cellular Radio, Communication satellites geo synchronous and low-orbit. Internetworking: Switch/Hub, Bridge, Router, Gateways, Concatenated virtual circuits, Tunneling, Fragmentation, Firewalls. Routing: Virtual circuits and datagrams.
- Routing algorithms. Congestion control. Cryptography-public key, secret key. Domain Name System (DNS) -Electronic Mail and Worldwide Web (WWW). The DNS, Resource Records, Name servers. E-mail-architecture and Services. Digital signatures and certificates.

6. Compilers and Theory of Computation :

- Phases of compilation process. Lexical analysis. Context free grammars. Parsing and parse trees.
- Representation of parse (derivation) trees as rightmost and leftmost derivations. Bottom up parsers-shift-reduce, operator precedence, and LR. Top down parsers-left recursion and its removal.
- Intermediate codes-Quadruples, Triples, Intermediate code generation, Code generation, Code optimization.
- Finite Automata, Pushdown Automata. NFA, DFA, Non-regular languages, and Pumping lemma. Pushdown Automaton (PDA), Deterministic Pushdown Automaton (DPDA), Context free Grammars: Greibach Normal Form (GNF) and Chomsky Normal Form (CNF), Cook-Kassami-Younger (CKY), and Tomita's parsing. Turing Machine (TM).

7. Artificial Intelligence :

- Definitions, AI approach for solving problems. Automated Reasoning with propositional logic and predicate logic-fundamental proof procedure, refutation, resolution, refinements to resolution (ordering/pruning/restriction strategies).

- State space representation of problems, bounding functions, breadth first, depth first.

8. Operating Systems :

- Main functions of operating systems. Multi Programming, multiprocessing, and multitasking.
- Memory Management: Virtual memory, paging, fragmentation. Concurrent Processing: Mutual exclusion. Critical regions, lock and unlock. Scheduling: CPU scheduling, I/O scheduling, Resource scheduling. Deadlock and scheduling algorithms. Banker's algorithm for deadlock handling.
- Unix File system, process management, shell variables, command line programming. Filters and Commands: Pr, head, tail, cut, paste, sort, uniq, tr, join, etc. grep, egrep, fgrep, etc. sed, awk, etc. System Calls (like): Create, open, close, read, write, isseek, link, unlink, stat, fstat, umask, chmod, exec, fork, wait, system.

9. Software Engineering :

- Concepts of Software Engineering, Software Characteristics, Software Engineering: System Development Life Cycle (SDLC): Steps, Water fall model, Prototypes, Spiral model. Software Metrics: Software Project Management. Software Design: System design, detailed design, function oriented design, object oriented design, user interface design.
- Design level metrics. Coding and Testing: Testing level metrics. Software quality and reliability. Clean room approach, software reengineering.

10. Graphics :

- Line Algorithm, circle generating algorithm, ellipse generating algorithm, polynomial and spline curves, parallel curve algorithms, clippings, clipping lines. 2D transformation, composite transformation,
- translation, rotation, scaling, parallel projection, perspective projection, surface rendering, polygon surface, meshes, splines, cubic spline interpolation, Bezier Curves and surfaces, B-spline and surfaces, Beta-spline, 3D transformation, rotation, scaling.

11. Image Processing :

- Image Registration, Spatial Fourier Transforms, Discrete Spatial (2 dimensional) Fourier Transforms, Restoration, Lossy Compression of images (pictures).
- Data Compression Techniques: Representation and compression of text, sound, picture, and video files (based on the JPEG and MPEG standards).

12. Data Warehousing and Mining :

- Data Warehouse environment, architecture of a data warehouse methodology, analysis, design, construction and administration.
- data mining techniques, classification, regression, clustering, summarization, dependency modelling, link analysis, sequencing analysis

Note :- Pattern of Question Paper

1. Objective type paper
2. Maximum Marks : 200
3. Number of Questions : 120
4. Duration of Paper : Three Hours
5. All questions carry equal marks.
6. There will be Negative Marking.

RPSC ACF And Forest Range Officer Syllabus 2021 Subject Wise

GENERAL KNOWLEDGE
GENERAL ENGLISH
ELECTRICAL ENGINEERING
COMPUTER ENGINEERING
CHEMISTRY
COMPUTER APPLICATION/SCIENCE
ELECTRONICS ENGINEERING
AGRICULTURAL ENGINEERING
ENVIRONMENTAL SCIENCE
BOTANY
GEOLOGY
ZOOLOGY
PHYSICS
AGRICULTURE
STATISTICS
MATHEMATICS
HORTICULTURE
MECHANICAL ENGINEERING
CIVIL ENGINEERING
FORESTRY
CHEMICAL ENGINEERING
VETERINARY SCIENCE

IMPORTANT LINKS

RPSC ACF And Forest Range Officer Syllabus PDF

Official Website

इस नोटिफिकेशन से संबंधित कुछ महत्वपूर्ण प्रश्न:-

1. **RPSC ACF And Forest Range Officer कितने अंको का होता है?**

उत्तर: 675

2. **RPSC ACF And Forest Range Officer पेपर में कितने प्रश्न आते हैं?**

उत्तर: 440

3. **RPSC ACF And Forest Range Officer पेपर में कितना समय मिलता है?**

उत्तर: इस नोटिफिकेशन में आप देख सकते हो।

4. **RPSC ACF And Forest Range Officer Syllabus in hindi. ?**

उत्तर: इस नोटिफिकेशन में आप देख सकते हो।

**शिक्षा जगत की लेटेस्ट अपडेट पाने के लिए हमारे टेलीग्राम चैनल को
सब्सक्राइब करें**



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