

राष्ट्रिय जीवन बीमा कम्पनी लिमिटेड
प्राविधिक सेवा, सूचना प्रविधि समूह, तह ४, सहायक पदको खुला प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

द्वितीय पत्र (Paper II)

सेवा सम्बन्धी

खण्ड (A) - ७० अङ्क

(८ प्रश्न × ५ अङ्क र ३ प्रश्न × १० अङ्क)

1. Computer Organization and Architecture

- 1.1. Basic Computer Instructions: Memory Reference, Register Reference
- 1.2. Instruction Set Architecture: Number of Bits Used to Represent Various Data Types, Input/Output (I/O) Mechanisms, Memory Addressing Techniques
- 1.3. Structure and Functions: Data Processing, Data Storage, Data Movement, and Control
- 1.4. Computer Components
- 1.5. RISC (Reduced Instruction Set Computer) and CISC (Complex Instruction Set Computer)
- 1.6. Processor Architectures: Parallel Processing: SISD (Single Instruction, Single Data), SIMD (Single Instruction, Multiple Data), MISD (Multiple Instruction, Single Data), MIMD (Multiple Instruction, Multiple Data)
- 1.7. Von Neumann and Harvard Architectures
- 1.8. Input/Output (I/O) Organization: I/O Module Functions, I/O Mapping

2. Software Engineering Principles

- 2.1. Software Process: Software Development Life Cycle (SDLC) Overview and Development Approaches
- 2.2. Requirements Engineering: Gathering, Analysis, and Validation
- 2.3. Design & Implementation: Basic Design, Coding, and Testing Concepts
- 2.4. Maintenance & Tools: Maintenance Types, Standards, and Software Tools

3. Information Security

- 3.1. Goals of Information Security
- 3.2. Cyber Threats and Challenges
- 3.3. Cyber Security Vulnerabilities
- 3.4. Cyber Security Safeguards

4. Database Systems

- 4.1. Database Basics
- 4.2. Transactions and Concurrency
- 4.3. Crash Recovery
- 4.4. Query Processing and Optimization
- 4.5. Indexing Techniques
- 4.6. Database Security

5. Computer Networks

- 5.1. Protocol Stack and Switching
- 5.2. Link Layer
- 5.3. Network Layer
- 5.4. Transport Layer
- 5.5. Application Layer

6. E-Commerce Technology

- 6.1. Introduction to E-Commerce
- 6.2. E-Commerce Strategies
- 6.3. E-Commerce Security

राष्ट्रिय जीवन बीमा कम्पनी लिमिटेड

प्राविधिक सेवा, सूचना प्रविधि समूह, तह ४, सहायक पदको खुला प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

6.4. E-Governance Success Models

6.5. E-Business Models

6.6. E-Payment Systems

7. Operating System

7.1. Processes and Threads: Symmetric Multiprocessing, Microkernels, Concurrency, Mutual Exclusion, Deadlock and Synchronization

7.2. Scheduling: Concept and Algorithms

7.3. Memory Management

7.4. Distributed Systems: Distributed Message Passing, Remote Procedure Call (RPC), Client/Server Computing, Clusters

8. Emerging Technologies

8.1. Block Chain: Concept, Benefits, Risks, and Uses

8.2. Big Data: Concept, Characteristics, and Applications

8.3. Cloud Computing: Concept, Types, Benefits, and Uses

8.4. Cryptocurrency: Concept, Benefits, Risks, and Applications

खण्ड (B) - ३० अङ्क

(४ प्रश्न × ५ अङ्क र १ प्रश्न × १० अङ्क)

9. सम्बन्धित कानूनी व्यवस्था (Relevant Legal Provisions)

9.1. नेपालको संविधान : भाग १,३,४ र अनुसूची (The Constitution of Nepal: Part 1, 2, 4 and Schedules)

9.2. बीमा ऐन, २०७९ र बीमा नियमावली, २०८१ (Insurance Act, 2079 and Insurance Regulation, 2081)

9.3. राष्ट्रिय जीवन बीमा कम्पनी लिमिटेडको प्रबन्धपत्र, नियमावली (Memorandum of Association and Articles of Association of Rastriya Jeewan Beema Company Limited)

9.4. राष्ट्रिय जीवन बीमा कम्पनी लिमिटेड कर्मचारी सेवा, शर्त तथा सुविधा सम्बन्धी विनियमावली, २०८२ (Employee Service, Conditions, and Facilities Bylaw, 2082 of Rastriya Jeewan Beema Company Limited)

9.5. विद्युतीय (इलेक्ट्रोनिक) कारोबार ऐन, २०६३ (Electronic Transactions Act, 2063)

9.6. सूचना तथा सञ्चार प्रविधि नीति, २०७२ (Information and Communication Technology Policy, 2015)

9.7. सम्पत्ति शुद्धीकरण (मनी लाउन्डरिङ) निवारण ऐन, २०६४ {Asset (Money) Laundering Prevention Act, 2008}

9.8. बीमकको सूचना प्रविधि मार्गदर्शन, २०७६ (Information Technology Guidelines for Insurers, 2019)

9.9. डिजिटल बीमा नीति मार्गदर्शन, २०८१ (Digital Insurance Policy Guideline, 2024)

9.10. सार्वजनिक खरिद ऐन, २०६३ र सार्वजनिक खरिद नियमावली, २०६४: सामान्य परिचय र खरिद प्रक्रिया सम्बन्धी आधारभूत जानकारी (Public Procurement Act, 2063 and Public Procurement Regulation, 2064: An Overview and Fundamental Information on Procurement Procedures)