

राष्ट्रिय जीवन बीमा कम्पनी लिमिटेड
प्राविधिक सेवा, सूचना प्रविधि समूह, तह ९, व्यवस्थापक पदको आन्तरिक प्रतियोगितात्मक परीक्षाको
पाठ्यक्रम
द्वितीय पत्र (Paper II)
सेवा सम्बन्धी
(Service Related)

खण्ड (A) - ७० अङ्क
(५ प्रश्न × १० अङ्क, १ प्रश्न × २० अङ्क)

- 1. Strategic Information Technology (IT) Governance and Digital Transformation:**
IT Governance Frameworks: Control Objectives for Information and Related Technologies (COBIT), Information Technology Infrastructure Library (ITIL), Enterprise IT Governance Models, Alignment of IT Strategy with Organizational and National Development Goals, Digital Transformation Strategies, Enterprise Architecture Management, IT Portfolio and Investment Management, Benefits Realization, IT Risk Governance, Role of Chief Information Officer/Chief Technological Officer (CIO/CTO) at Executive Level, Digital Leadership, Innovation Management, Public Sector Digital Governance
- 2. Advanced Computer Architecture:**
Advanced Central Processing Unit (CPU) and Graphics Processing Unit (GPU) Architectures, Multicore and Many-Core Processors, High-Performance Computing (HPC), Parallel and Distributed Architectures, Cloud-Native Infrastructure, Virtualization and Containerization: Concept, Scalable Storage Architectures, Enterprise Redundant Array of Independent Disks (RAID) and Storage Area Network/ Network Attached Storage (SAN/NAS) Systems, Fault-Tolerant Systems, Performance Optimization, Energy-Efficient Computing, Emerging Hardware Trends
- 3. Enterprise Software Engineering and Management:**
Enterprise-Scale System Design, Software Architecture Patterns, Micro Services Architecture (Conceptual), Development and Operations (DevOps) and Continuous Integration/Continuous Deployment (CI/CD) Governance, Software Program and Portfolio Management, Large-Scale Agile and Hybrid Models, Quality Governance and Maturity Models: Capability Maturity Model Integration (CMMI) – Concept Level, Enterprise Risk Management in Software Projects, Cost–Benefit and Return on Investment (ROI) Analysis for Large IT Programs, Vendor and Outsourcing Management, Change Management, Digital Process Re-Engineering, AI-Assisted Software Systems: Overview
- 4. Cyber Security and Enterprise Information Assurance:**
Information Security Governance, National Cyber Security Strategies, Security Policy Formulation and Enforcement, Enterprise Risk Assessment, Data Protection Governance, Cyber Resilience, Zero-Trust Security: Concepts, Security Operations Center (SOC) and Computer Emergency Response Team (CERT) Operations: Concepts, Advanced Cryptography: Concepts, Identity and Access Management (IAM), Security Compliance and Audits, Cyber-Incident Management, Cyber Laws and Cross-Border Data Governance

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5. Operating Systems and Distributed Computing:

OS Design: Concepts, Distributed and Cloud Operating Systems, Resource Orchestration, Container-Based OS Environments, Concurrency Control At Scale, Real-Time and Embedded Operating Systems, Fault Tolerance and Recovery, Performance Monitoring, OS Security Hardening, Enterprise OS Deployment and Management Strategies, Future OS Trends

6. Networking, Cloud and Infrastructure Security:

Enterprise Networks, Software-Defined Networking (SDN), Network Functions Virtualization (NFV), Cloud Computing – Infrastructure/Platform/Software as a Service (IaaS/PaaS/SaaS), Multi-Cloud Architecture and Design, Zero-Trust Security, Network Automation, Infrastructure Security Governance, Identity and Access Management (IAM), Big Data, Digital Transformation, Disaster Recovery, Business Continuity, Critical Infrastructure Protection, and National-Level Network and Cloud Security Case Studies

7. Enterprise Data Management and Analytics:

Enterprise Database Architecture, Distributed and Cloud Databases, Data Governance Frameworks, Master Data Management (MDM), Big Data Platforms and Analytics, Real-Time Data Processing, Data Security and Privacy Governance, Regulatory Compliance, AI-Driven Analytics, Data-Driven Decision-Making in Public Institutions, Enterprise Disaster Recovery (DR) and High-Availability Data Systems

8. Emerging and Strategic Technologies:

Artificial Intelligence and Machine Learning (Strategic Overview), National AI Strategies, Block Chain and Distributed Ledger Technologies, Smart Infrastructure Systems, Advanced Internet of Things (IoT) Ecosystems, Digital Twins, Edge Computing, Quantum Computing: Concepts, Green IT, Edge Computing, Grid Computing, Sustainable Information Communication and Technology (ICT) Infrastructure, National Digital Innovation Ecosystems

9. Digital Economy, E-Governance and Enterprise Applications:

Digital Economy Concepts, E-Governance Architecture and Platforms, Enterprise Resource (ERP) and Customer Relationship Management (CRM) Systems, Government Service Automation, Digital Payment Ecosystems, FinTech Governance, Data-Driven Public Services, Enterprise Reporting and Decision-Support Systems, Ethical and Social Implications of Digital Services

10. ICT Policies, Laws, Standards and Regulatory Governance:

Study of Nepal's ICT Policies and Acts, Cyber Security Regulations, Data Protection and Privacy Laws, International ICT Standards and Best Practices, Digital Governance Frameworks, Compliance Management, Policy Impact Analysis, IT Audit and Regulatory Oversight, Institutional ICT Governance Models

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खण्ड (B) - ३० अङ्क
(३ प्रश्न × १० अङ्क)

11. सम्बन्धित कानूनी व्यवस्था (Relevant Legal Provisions)

- 11.1 नेपालको संविधान (Constitution of Nepal)
- 11.2 बीमा ऐन, २०७९ र बीमा नियमावली, २०८१ (Insurance Act, 2079 and Insurance Regulations, 2081)
- 11.3 राष्ट्रिय जीवन बीमा कम्पनी लिमिटेडको प्रबन्धपत्र, नियमावली (Memorandum of Association and Articles of Association of Rastriya Jeewan Beema Company Limited)
- 11.4 राष्ट्रिय जीवन बीमा कम्पनी लिमिटेड कर्मचारी सेवा, शर्त तथा सुविधा सम्बन्धी विनियमावली (Employee Service, Conditions, and Facilities Bylaw, 2082 of Rastriya Jeewan Beema Company Limited)
- 11.5 विद्युतीय (इलेक्ट्रोनिक) कारोबार ऐन, २०६३ (Electronic Transactions Act, 2063)
- 11.6 सूचना तथा सञ्चार प्रविधि नीति, २०७२ (Information Technology Policy, 2015)
- 11.7 सम्पत्ति शुद्धीकरण (मनी लाउन्डरिङ) निवारण ऐन, २०६४ (Asset (Money) Laundering Prevention Act, 2008)
- 11.8 बीमकको सूचना प्रविधि मार्गदर्शन, २०७६ (Information Technology Guidelines for Insurers, 2019)
- 11.9 डिजिटल बीमा नीति मार्गदर्शन, २०८१ (Digital Insurance Policy Guideline, 2024)
- 11.10 भ्रष्टाचार निवारण ऐन, २०५९ (The Prevention of Corruption Act, 2059)
- 11.11 सुशासन (व्यवस्थापन तथा सञ्चालन) ऐन, २०६४ (Good Governance (Management and Operation) Act, 2064)
- 11.12 सार्वजनिक खरिद ऐन, २०६३ र सार्वजनिक खरिद नियमावली, २०६४ (Public Procurement Act, 2063 and Public Procurement Regulation, 2064)