

GOVERNMENT OF NAGALAND
Office of the Society for Climate Resilient Agriculture in Nagaland (SoCRAN)
ELEMENT (WORLD BANK)- NAGALAND
NAGALAND: KOHIMA

SYLLABUS FOR THE RECRUITMENT EXAMINATION

SYLLABUS FOR THE POSITIONS OF EXPERT, MANAGER AND FINANCE & ACCOUNTS ASSISTANT

A. SUBJECT MATTER (75 Marks)

- *All questions will be of Objective Type*
- *15 questions of 1 mark each with lower difficulty level*
- *20 questions of 3 marks each that require Higher Order Thinking (Application & Analysis)*

B. GENERAL KNOWLEDGE (25 Marks Objective Type Questions)

Science and Technology, Current Affairs, Policy & Governance, Environment Studies, Nagaland History, Sports, General Science, Economy.

Total: 100 marks

Time Duration: 2 Hours

Position: GIS Expert/Analyst (Code – SPMU2)

1. GIS Fundamentals

- Basic concepts of GIS (e.g., spatial data, layers, projections, coordinate systems)
- Types of GIS data (vector vs. raster)
- GIS applications across different sectors
- Common GIS software (ArcGIS, QGIS, etc.)

2. Spatial Data Management and Analysis

- Data sources and acquisition (satellite imagery, GPS data, surveys)
- Spatial data formats (Shapefiles, GeoJSON, KML, etc.)
- Data pre-processing and cleaning techniques
- Spatial analysis techniques (buffering, overlay, spatial joins)
- Geostatistical analysis and interpolation methods

3. Remote Sensing Concepts

- Fundamentals of remote sensing
- Types of satellite imagery and resolutions
- Image processing techniques (classification, enhancement, filtering)
- Applications of remote sensing in natural resource management

4. Cartography and Visualization

- Principles of map design and cartographic elements
- Thematic mapping techniques
- Symbolization and labelling in GIS
- Visualization tools and techniques

5. GIS Programming and Automation

- Python for GIS (e.g., using libraries like GDAL, Geopandas, ArcPy)
- Automating GIS workflows and scripting
- Database integration (SQL, PostGIS)
- Web GIS development (Leaflet, OpenLayers)

6. Spatial Database Management

- Database design and normalization for spatial data
- Spatial indexing and query optimization
- Working with spatial databases (PostGIS, Oracle Spatial)

7. GIS Applications in Natural Resource Management (NRM)

- Land use and land cover mapping
- Environmental monitoring and management
- Disaster risk assessment and planning
- Climate change impact analysis

8. Practical Scenario-Based Questions

- Problem-solving case studies related to GIS applications
- Data interpretation and decision-making exercises

9. Current Trends and Emerging Technologies

- AI/ML integration with GIS
- IoT and real-time GIS applications
- Cloud-based GIS platforms

Position: Environment Expert (Code – SPMU4)

1. Environmental Project Implementation

- Principles of environmental project planning and management
- Steps in project implementation (planning, execution, monitoring, evaluation)
- Stakeholder engagement and public participation
- Budgeting and resource allocation for environmental projects
- Case studies on successful environmental project implementation

2. Environmental Impact Assessment (EIA)

- EIA process and methodologies
- Screening, scoping, baseline studies, impact prediction, and mitigation
- Environmental Management Plans (EMPs)
- Strategic Environmental Assessment (SEA)
- Compliance monitoring and post-project monitoring

3. Environmental Vulnerability and Risk Assessment

- Identifying environmental vulnerabilities in infrastructure projects
- Risk assessment frameworks and methodologies
- Disaster risk reduction (DRR) and climate resilience
- Tools and techniques for risk mapping and scenario analysis
- Case studies of environmental risks in infrastructure development

4. World Bank Environmental and Social Safeguards Policies

- Overview of World Bank Environmental and Social Framework (ESF)
- Key safeguards policies (Environmental and Social Standards - ESS)
- ESS1: Assessment and Management of Environmental and Social Risks and Impacts
- ESS3: Resource Efficiency and Pollution Prevention
- ESS4: Community Health and Safety
- ESS6: Biodiversity Conservation
- ESS10: Stakeholder Engagement
- Safeguard instruments (Environmental and Social Impact Assessment, Environmental and Social Commitment Plan, etc.)
- Compliance and reporting requirements under World Bank projects

5. IFC Performance Standards on Environmental and Social Sustainability

- Understanding IFC's Performance Standards framework
- PS1: Assessment and Management of Environmental and Social Risks
- PS2: Labor and Working Conditions
- PS3: Resource Efficiency and Pollution Prevention
- PS4: Community Health, Safety, and Security
- PS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
- Due diligence and monitoring under IFC guidelines
- Stakeholder consultation and grievance redress mechanisms

6. Environmental Regulations and Compliance

- National and international environmental legal frameworks
- Environmental compliance auditing
- Reporting and documentation in regulatory compliance
- Environmental permits and licensing processes

- Consequences of non-compliance and legal actions

7. Climate Change Considerations in Infrastructure Projects

- Climate risk assessment in infrastructure planning
- Low-carbon infrastructure design and resilience measures
- Climate adaptation and mitigation strategies
- International climate agreements (Paris Agreement, SDGs)
- Financing mechanisms for climate-resilient infrastructure

8. Pollution Prevention and Control

- Industrial pollution control strategies
- Waste management and resource efficiency
- Environmental monitoring techniques (air, water, soil)
- Remediation strategies for contaminated sites
- Environmental technology innovations

9. Sustainable Development and Green Infrastructure

- Principles of sustainable development
- Nature-based solutions in infrastructure
- Green building certifications (LEED, BREEAM)
- Circular economy principles in construction
- Public-private partnerships for sustainable infrastructure

10. Environmental Management Tools and Techniques

- Geographic Information Systems (GIS) for environmental planning
- Life Cycle Assessment (LCA)
- Environmental auditing and due diligence
- Decision support tools for environmental management
- Data collection and analysis for environmental reporting

Position: NRM Expert (Code – SPMU6)

1. Fundamentals of Natural Resource Management

- Definition, Scope, and Principles of NRM
- Classification of Natural Resources (Renewable vs. Non-renewable)
- Sustainable Development Goals (SDGs) and NRM
- Ecosystem Services and Valuation

2. Environmental Policies and Governance

- National and International Environmental Policies
- Environmental Laws and Regulations (e.g., Environmental Protection Act, Forest Conservation Act)

3. Forestry and Biodiversity Conservation

- Forest Management Practices (Agroforestry, Social Forestry)
- Biodiversity Conservation Strategies (In-situ and Ex-situ)
- Protected Areas (National Parks, Wildlife Sanctuaries, Biosphere Reserves)
- Community Forest Management and Joint Forest Management (JFM)

4. Watershed and Water Resource Management

- Components of Watershed Management
- Integrated Water Resource Management (IWRM)
- Rainwater Harvesting Techniques
- Groundwater Recharge and Management
- River Basin Planning and Management

5. Soil and Land Resource Management

- Types and Characteristics of Soil
- Soil Erosion and Conservation Techniques
- Land Use Planning and Zoning
- Desertification and Land Degradation Control Measures

6. Climate Change and Adaptation Strategies

- Causes and Effects of Climate Change
- Climate Change Mitigation and Adaptation Strategies
- Carbon Footprint and Sequestration
- Climate Resilient Agriculture and Ecosystems

7. Agricultural Resource Management

- Sustainable Agricultural Practices
- Organic Farming and Agroecology
- Precision Farming and Resource Efficiency
- Integrated Pest and Nutrient Management (IPM and INM)

8. Community-Based Natural Resource Management (CBNRM)

- Participatory Resource Management Approaches
- Role of Indigenous Knowledge in NRM
- Livelihood Development through NRM Initiatives
- Women's Role in Resource Management

9. Renewable Energy and Resource Efficiency

- Types of Renewable Energy (Solar, Wind, Bioenergy)
- Energy Conservation Techniques
- Waste-to-Energy Technologies
- Circular Economy Concepts

10. Disaster Risk Management and Resilience Building

- Types of Natural Disasters and Their Impacts on Resources
- Disaster Preparedness and Mitigation Strategies
- Post-disaster Resource Rehabilitation
- Early Warning Systems

Position: MIS Expert (Code – SPMU11)

1. MIS Fundamentals

- Definition, scope, and objectives of MIS
- Components of MIS (hardware, software, data, people, processes)
- Types of MIS (Operational, Tactical, Strategic)
- Role of MIS in decision-making and business strategy

2. Data Management and Database Systems

- Database concepts and architecture (DBMS, RDBMS)
- Data modelling (ER diagrams, normalization)
- SQL fundamentals (DML, DDL, DCL commands)
- Data warehousing and data mining
- Big Data and analytics

3. Information Systems and Business Applications

- Enterprise Resource Planning (ERP) systems
- Customer Relationship Management (CRM) systems
- Supply Chain Management (SCM) systems
- Business Intelligence (BI) tools and dashboards
- E-commerce and E-business applications

4. Systems Analysis and Design

- System Development Life Cycle (SDLC)
- Requirement analysis techniques
- Feasibility studies (technical, economic, operational)
- System design methodologies (Waterfall, Agile, Prototyping)
- UML diagrams and modeling

5. Information Security and Risk Management

- Cybersecurity fundamentals (CIA triad: Confidentiality, Integrity, Availability)
- Risk assessment and mitigation strategies
- Access control mechanisms (RBAC, multi-factor authentication)
- Encryption techniques and secure data transmission
- Compliance and regulatory standards (GDPR, HIPAA, ISO 27001)

6. Decision Support and Business Intelligence Systems

- Decision-making process and MIS role
- Decision Support Systems (DSS) vs. MIS
- Data visualization and reporting tools
- Artificial Intelligence (AI) in decision support
- Predictive analytics and machine learning applications

7. Emerging Technologies in MIS

- Cloud computing and its impact on MIS
- Internet of Things (IoT) in data collection and automation
- Blockchain technology in data security and transactions
- Artificial Intelligence (AI) and automation in business processes
- Trends in digital transformation (RPA, Edge Computing)

8. Networking and IT Infrastructure

- Basics of computer networks (LAN, WAN, VPN)
- Network security fundamentals
- Cloud vs. on-premises solutions
- IT infrastructure planning and management
- Virtualization and containerization

9. MIS Project Management

- IT project management frameworks (PMBOK, Agile, Scrum)
- Budgeting and cost estimation for MIS projects
- Key performance indicators (KPIs) for MIS success
- Change management in information systems
- Software quality assurance and testing

10. Ethical, Legal, and Social Aspects of MIS

- Ethical considerations in information systems
- Intellectual property rights and data privacy laws
- Social and cultural impact of MIS
- Ethical hacking and ethical considerations in AI
- Digital divide and accessibility issues

Position: Admin & HR Manager (Code – SPMU12/ZMU1)

1. General Administration

- **Principles of Management**
 - Functions (Planning, Organizing, Leading, Controlling)
 - Organizational Structure and Design
 - Decision-making Processes
- **Office Management**
 - Record-keeping and Documentation
 - Communication and Correspondence Management
 - Time and Resource Management
- **Facility and Asset Management**
 - Procurement and Vendor Management
 - Maintenance and Security Procedures
 - Inventory Control

2. Human Resource Management

- **HR Planning and Strategy**
 - Workforce Planning
 - Talent Acquisition and Retention
 - Succession Planning
- **Recruitment and Selection**
 - Job Analysis and Job Descriptions
 - Interviewing Techniques
 - Employee Onboarding
- **Performance Management**
 - Key Performance Indicators (KPIs)
 - Performance Appraisal Methods
 - Employee Motivation and Engagement
- **Training and Development**
 - Needs Assessment
 - Learning and Development Programs
 - Evaluation of Training Effectiveness
- **Compensation and Benefits**
 - Salary Structures
 - Incentive and Bonus Programs
 - Employee Welfare Initiatives
- **Employee Relations and Engagement**
 - Workplace Culture Development
 - Conflict Resolution and Grievance Handling
 - Employee Feedback Mechanisms

3. Labour Laws and Compliance

- **National Labor Laws (Indian Context)**
 - Employment Contracts
 - Equal Employment Opportunity (EEO) Laws
 - Workplace Safety Regulations

- **Statutory Compliance**
 - Provident Fund, ESI, and Gratuity
 - Payroll Compliance
 - Disciplinary Actions and Termination Procedures

4. Organizational Behaviour and Leadership

- **Leadership Theories and Styles**
 - Transformational vs. Transactional Leadership
 - Change Management Approaches
- **Team Management**
 - Team Dynamics and Collaboration
 - Conflict Resolution Strategies
- **Workplace Psychology**
 - Employee Motivation Theories (Maslow, Herzberg, McGregor)
 - Stress Management Techniques

6. Financial Acumen for HR and Administration

- **Budgeting and Financial Planning**
 - HR Budgeting Basics
 - Cost Control Techniques
- **Payroll Processing**
 - Taxation and Deductions
 - Salary Disbursement Procedures

7. Communication and Interpersonal Skills

- **Professional Communication**
 - Written and Verbal Communication Skills
 - Negotiation and Persuasion Techniques
- **Customer Service Skills**
 - Internal and External Stakeholder Management
 - Conflict Resolution Strategies

8. Crisis and Risk Management

- **Workplace Health and Safety**
 - Risk Assessment Procedures
 - Emergency Preparedness and Response
- **Business Continuity Planning**
 - Contingency Planning
 - Disaster Recovery Strategies

Position: Assistant – Finance & Accounts (Code – ZMU3)

1. Financial Accounting

- Basic accounting principles (GAAP, IFRS)
- Double-entry bookkeeping
- Preparation of financial statements (Balance Sheet, Income Statement, Cash Flow Statement)
- Journal entries and ledger management
- Accounts payable and receivable management
- Bank reconciliation
- Accrual vs. cash accounting
- Depreciation methods and amortization
- Financial reporting best practices

2. Tally ERP Proficiency

- Tally features and functionalities
- Creating and managing ledgers
- Voucher entry and adjustments
- GST, TDS, and payroll management in Tally
- Generating financial reports in Tally
- Inventory and stock management in Tally
- Budgeting and cost center management in Tally
- Troubleshooting and error handling in Tally

3. Computer Literacy and Spreadsheet Proficiency

- Microsoft Excel / Google Sheets functions and formulas
- VLOOKUP, HLOOKUP, INDEX-MATCH
- Pivot tables and data analysis tools
- Conditional formatting
- Macros and automation basics
- Financial modeling and forecasting
- Data visualization (charts and graphs)
- Spreadsheet error checking and data validation
- Creating budget templates and financial models

4. Financial Regulations and Compliance

- Overview of financial compliance regulations (e.g., GST, Income Tax, Companies Act)
- Internal controls and audit procedures
- Compliance with accounting standards (GAAP, IFRS, Ind AS)
- Statutory deductions and filings (PF, ESI, TDS)
- Ethical considerations in financial management
- Anti-money laundering (AML) regulations and financial fraud detection

5. Budget Management

- Principles of budgeting and cost control
- Project budgeting techniques
- Variance analysis (budget vs. actual)
- Cost-benefit analysis
- Resource allocation and expenditure tracking
- Risk assessment in financial planning

6. Payroll and Taxation

- Payroll processing and statutory deductions (EPF, ESI, professional tax)
- Income tax calculation and return filing
- Goods and Services Tax (GST) calculations and filings
- Tax planning and compliance reporting
- Handling salary advances and reimbursements

7. Accounts Receivable and Payable Management

- Credit management and aging analysis
- Invoice processing and vendor management
- Payment follow-ups and collections
- Cash flow forecasting and working capital management
- Discounts and credit terms management

8. Cash and Bank Management

- Handling petty cash and cash flow tracking
- Bank reconciliation process
- Understanding bank statements and loan agreements
- Fund transfers and electronic payment methods
- Managing foreign currency transactions



SYLLABUS FOR THE POSITIONS OF PROJECT ASSISTANT, DATA ENTRY/ COMPUTER OPERATOR (SPMU18/ZMU6/SPMU19)

A. GENERAL KNOWLEDGE (50 Marks; Time Duration: 1 Hour)

Science and Technology, Current Affairs, Policy & Governance, Environment Studies, Nagaland History, Sports, General Science, Economy.

B. COMPUTER PROFICIENCY TEST (50 Marks; Practical; Time Duration: 1 Hour)

Total: 100 Marks

1. Typing Speed and Accuracy

- Typing a given passage within a time limit
- Identifying and correcting typographical errors
- Formatting text as per given instructions (bold, italic, alignment, spacing)
- Numeric data entry (speed and accuracy)

2. Microsoft Word

- Document creation and formatting (font, size, styles)
- Table creation and formatting
- Use of templates and styles
- Page setup (margins, orientation, page numbering)
- Mail merge operations
- Spell check and grammar tools
- Inserting images, hyperlinks, and shapes
- Find and replace functionality

3. Microsoft Excel

- Data entry and formatting (text, numbers, dates)
- Use of basic formulas and functions (SUM, AVERAGE, COUNT, IF)
- Sorting and filtering data
- Conditional formatting
- Data validation (drop-down lists, input restrictions)
- Chart creation (bar, pie, line)
- Pivot tables for data analysis
- Handling large datasets and navigation shortcuts
- Microsoft PowerPoint
- Creating and editing slides
- Applying slide layouts and themes
- Inserting and formatting text, images, and charts
- Adding animations and transitions
- Slide show settings and printing options

5. Email Communication and Internet Usage

- Drafting and formatting professional emails
- Attaching files and adding hyperlinks
- Understanding CC and BCC
- Organizing inbox and folders
- Downloading and uploading files securely

- Searching information efficiently online
- Awareness of email security practices (spam, phishing)

6. Data Accuracy and Verification

- Cross-checking entered data for errors
- Identifying inconsistencies in records
- Matching data from different sources (manual verification)
- Proofreading and correcting documents

7. File and Folder Management

- Organizing files into folders systematically
- Naming and renaming files
- Copying, moving, and deleting files
- Compressing and extracting files (ZIP, RAR)
- File format conversions (PDF to Word, CSV to Excel)

8. Use of Data Entry Software

- Navigating through ERP/CRM software
- Entering data into pre-defined fields
- Generating reports from software
- Ensuring data accuracy in database applications

9. Printing and Document Handling

- Setting up print options (duplex, grayscale, page range)
- Adjusting page layout for optimal print output
- Print preview and troubleshooting print errors

10. Shortcut Key Usage

- Using keyboard shortcuts for efficient workflow (Ctrl + C, Ctrl + V, Alt + Tab, etc.)
- Customizing shortcuts for personal efficiency
- Multitasking between applications

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