

नेपाल विद्युत् प्राधिकरण

प्राविधिक सेवा, विविध समूह, बातावरण उपसमूह, तह-८ सहायक प्रबन्धक पदको
प्रतियोगितात्मक लिखित परीक्षाको पाठ्यक्रम

१. लिखित परीक्षाको विषय, पूर्णाङ्क, परीक्षा प्रणाली, प्रश्नसंख्या, अंकभार र समय निम्नानुसार हुनेछ ।

पत्र	विषय	पूर्णाङ्क	परीक्षा प्रणाली	प्रश्न संख्या	प्रति प्रश्न अंकभार	समय
प्रथमपत्र	सेवा सम्बन्धी	७०	विषयगत	छोटो उत्तर	८	२ घण्टा
				लामो उत्तर	३	
द्वितीयपत्र	व्यवस्थापकीय ज्ञान	३०	विषयगत	छोटो उत्तर	३	१ घण्टा
				समस्या समाधान	१	

२. प्रथमपत्र र द्वितीयपत्रको परीक्षा २ पटक गरेर हुनेछ । प्रथमपत्रको परीक्षा सकिए पछि द्वितीयपत्रको परीक्षा तत्काल हुनेछ ।
३. परीक्षाको माध्यम नेपाली वा अंग्रेजी भाषा हुनेछ ।

प्रथमपत्र : सेवा सम्बन्धी

1. SPECIFIC KNOWLEDGE ABOUT THE ENVIRONMENTAL REQUIREMENTS FOR POWER:

- Different levels of Impact Assessments, e.g Checklist, IEE, EIA
- Relationship of EIA and Feasibility Study
- Relationship between EIA and Good Design
- The EIA Process
- Environmental Monitoring
- IEE / Environmental Checklist/Initial Screening
- Role of EIA in Project Planning and Implementation
- Essential steps in EIA Process in Project Planning

2. FOR HYDROPOWER DEVELOPMENT:

Impacts on Environmental Resources and Values

- Environmental Problems due to project location
 - Resettlement
 - Encroachment into precious ecology
 - Encroachment of historical/cultural values
 - Watershed erosion silt runoff
 - Impairment of Navigation
 - Effects on ground water hydrology
 - Migrating valuable fish species
 - Inundation of mineral resources
 - Other inundation losses or adverse effects
- Environmental Problems related to Project Design
 - Road Erosion
 - Pre-impoundment reservoir site preparation
 - Water rights conflicts
 - Fish screens
- Environmental Problems associated with Construction stage
 - Soil erosion/silt runoff
 - Construction hazards

- Environmental Problems related to Project Operations
 - Downstream flow variations
 - Deprecitation of downstream inundation fisheries
 - Downstream crosion
 - Lack of reservoir management
 - Eutrophication
 - Water Quality
 - Insect vector disease hazards
 - Reservoir bank stability
 - Post construction monitoring
- Potential Environmental Enhancement Measures
 - Reservoir Fishery
 - Drawdown Agriculture
 - Downstream Community water supply
 - Downstream aquaculture
 - Forestry/wildlife reserves
 - Watershed Management
 - Emission benefits from carbon trade
- Additional Considerations for Hydropower Projects
 - Multipurpose management needs
 - Rural Electrification
 - Transmission lines
 - Climate change
 - Risk assessment
- Critical Review Criteria
 - Loss in implacable natural resources
 - Acceierated use of resources for short-term gains
 - Endangering of species
 - Undesirable rural-urban migration
 - Increase in affluent poor people gap

3. FOR THERMAL POWER DEVELOPMENT:

Impacts on Environmental Resources and values

- Environmental Problems due to project Location
 - Resettlement of families displaced by Project
 - Encroachment into precious ecology
 - Encroachment on historical/cultural values
 - Disruption of hydrology
 - Cooling water abstractions
 - Regional flooding and drainage hazards
 - Waste emission problems
- Environmental Problems related to Project Design
 - Cooling water systems
 - Pollution control equipment
 - Pollution control
 - Occupational health
 - Hazardous spills/fires/explosions
- Environmental Problems associated with Construction Stage
 - Silt runoff during construction
 - Erosion of unprotected exposed areas
 - Other construction stage hazards

- Environmental Problems related to Project Operations
 - Adequacy of O & M funding
 - Occupational health and safety
 - Nuisances from hauling fuel
 - Surface runoff from plant yard
 - Operations monitoring
 - Potential Environmental Enhancement Measures
 - Critical Review Criteria
 - Loss in irreplaceable natural resources
 - Accelerated use of resources for short-term gains
 - Endangering of species
 - Undesirable rural-urban migration
 - Increase in affluent/poor people gap
- 4. POST CONSTRUCTION ENVIRONMENTAL MONITORING PROGRAM (EMP)**
- Purpose of EMP
 - Components of EMP
- 5. PREPARATION OF SCOPING DOCUMENT:**
- Purpose of scoping document
 - Components of Scoping document
- 6. PREPARATION OF TOR FOR ELA**
- Purpose of TOR
 - Components of TOR
- 7. PUBLIC INVOLVEMENT IN THE ELA PROCESS: ITS IMPORTANCE AND METHODOLOGY RESETTLEMENT AND REHABILITATION**
- Issues
 - Social significance
 - Mitigation of adverse social impacts
- 8. ENVIRONMENTAL AUDITING**
- How and when
 - Significance
- 9. GENDER ISSUES:**
- Identification of issues
 - How to address issues

द्वितीयपत्र : व्यवस्थापकीयज्ञान**1. POWER SECTOR DEVELOPMENT AND INSTITUTIONS INVOLVED:**

History of power development in Nepal, Energy demand supply trends, Challenges and prospects of hydropower development, Importance of power exchange agreement with India, Scope of power exchange with other countries, Coordination between stakeholders in power sector, Scope for export oriented development of power sector, NEA's mission and objectives, Basic trends in NEA development, Policies and programs of NEA, Financing of NEA, Indicators of NEA financial performance, NEA rules and regulations on employment, procurement and promotions, Inventory control, Impediments for growth and possible reform measures, Role of Government institutions involved in power sector development, Role and importance of IPPs, Major projects under implementation and planning.

2. LEGAL PROVISIONS FOR POWER SECTOR DEVELOPMENT:

Hydropower Development Policy, 2058, Water Resources Act, 2049, Electricity Act, 2049, Electricity Regulation, 2050, Nepal Electricity Authority Act, 2041, Environment Protection Act, 2053, Environment Protection Regulation, 2054, Electricity Pilferage Control Act, 2058, Electricity Pilferage Control Regulation, 2059.

3. ENGINEERING ECONOMICS:

Cash flow analysis, Project evaluation indicators, Payback period, Criteria for capital investment decision, Risk analysis, Taxation system in Nepal, Energy tariff and regulatory issues.

4. PROJECT MANAGEMENT:

Project Planning and Scheduling: Network models, CPM/PERT, Manpower leveling, Material scheduling, Project preparation for implementation and justification of the project.

Project monitoring and control: System of control, Project control cycle, Feedback control systems, Cash control.

Capital Planning and Budgeting: Capital planning procedures, Preparation of operating budgets, fixed and flexible budget, budgetary control.

5. ORGANIZATION AND MANAGEMENT:

Internal Organization, Management Information System, Motivation, Leadership and team work, Decision making, Corporate planning and strategic management, Job description, Job analysis, Performance appraisal, Auditing and inventory control, Personnel Management, Familiarization with procurement guidelines and standards of World Bank, ADB, Preparation of Contract documents, specifications, condition of contract and other contractual procedures.

B. समस्या समाधान :

व्यवस्थापकीय कार्यसंग सम्बन्धित कुनै एउटा समस्या दिइनेछ । प्रचलित ऐन नियमको परिधि र अवस्था समेतलाई विचार गरी दिइएको समस्याको निम्न आधारमा उपयुक्त समाधान र सुझाव प्रस्तुत गर्नु पर्नेछ ।

(१) समस्याका खास खास कारणहरु दर्शाउने ।

(२) समस्या समाधानका लागि सुझावहरु प्रस्तुत गर्ने ।

(३) प्रस्तुत सुझावहरु कार्यान्वयन गर्दा त्यसबाट पर्न सक्ने सकारात्मक प्रभावहरु उल्लेख गर्ने ।

दृष्टव्य: पाठ्यक्रममा राखिएका संविधान, नीति, ऐन, नियम र विनियमहरु परीक्षा हुनु भन्दा ३ महिना अगाडी सम्म संशोधन वा खारेज भई त्यसको सट्टा हाल प्रचलनमा रहेकालाई सोही अनुरूप पाठ्यक्रममा समावेश भएको मानिने छ ।

