

लोकसेवा आयोग
नेपाल इन्जिनियरिङ्ग सेवा, सिभिल समुह, हाईवे उपसमुह, रा.प.प्रथम श्रेणी (खूला प्रतियोगिता
र आन्तरिक प्रतियोगिता) को लिखित परिक्षाको पाठ्यक्रम

द्वितीय पत्र : उपसमूह सम्बन्धी

अंकभार १००

1. Introduction

National road transport system.
Transport sector policies and strategies with respect of road transportation.
Institutional background of the Road transport sector.
Major development projects and Economic policies affecting the transport sector.
Concept and Significance of Highway Planning.
Application of computer model in Highway Management.
Social and environmental consequences of Highways and the mitigation measures
South Asia Regional Action plan for Road developments.

2. Highway Design and Geometries

Geometric design standards for highways and their applications.
Design Parameters and criteria of selections.

3. Highway Drainage and Drainage Structures

3.1 Fundamental concept of Highway and road side drainages.
3.2 Prevention of erosion in road corridor.
3.3 Bio-Engineering concepts and their applications.

4. Traffic Characteristics and Traffic Controls

4.1 Traffic threshold for road up gradation.
4.2 Traffic control and Road Safety Audit.
4.3 Maintenance of traffic control devices and safety works.
4.4 Public awareness in road safety.
4.5 Conceptual planning and design for pedestrians and mass transit facilities.
4.6 Pollution Prevention and their Control.
4.7 Road accident and preventions.

5. Construction of Highways

5.1 Classification of Roads.
5.2 Methods and construction technology.
5.3 Contract Management and quality aspects of construction.
5.4 Environmental and social Impact assessment in road sector and its mitigation.
5.5 Monitoring and Evaluation at each level of project.
5.6 Private sector involvement and contracting.
5.7 Labor Intensive method of roads construction.
5.8 Quality control and assurances.

6. Highway Maintenance and Rehabilitation

- 6.1 Maintenance management system and its analytical approach.
- 6.2 Importance and challenge of the highway maintenance.
- 6.3 Issues on water management in road maintenance works.
- 6.4 Road Maintenance Training Policy of DOR.

7. Highway Bridges and Tunnels

- 7.1 Location of bridge site and types of bridges in Nepal.
- 7.2 Construction Technology adopted in bridges and tunnels.
- 7.3 Hydraulic and seismic analysis for bridge and tunnel construction.
- 7.4 Drainage, lighting and ventilation requirement in Tunnel.
- 7.5 River banks and river training works.
- 7.6 Maintenance and rehabilitation of bridges and tunnels.
- 7.7 Economical structures including Bridges for Highway Development.

8. Economics, Finance and Administrations

- 8.1 Transport Economics.
- 8.2 National Economy and Road sector development strategy.
- 8.3 Resource Mobilization in transport sector with an analytical approach.
- 8.4 Concept of three year rolling plan.
- 8.5 The road management and finance fund reform implementation committee and its functions.
- 8.6 The concept of Build Operate and Transfer (BOT) with an analytical approach.
- 8.7 Institutional Strengthening.
- 8.8 An analytical review of External Financing in road sector.
- 8.9 Contract disputes resolution.
- 8.10 Concept of Value Engineering.

9. Convention and Implementation

- 9.1 Global and national policies and conventions and their execution
- 9.2 Implementation of Regional and sub-regional charters and their future prospect