

## Nepal Airlines Corporation

### Syllabus for Ground Equipment Officer, Grade VI Aircraft Maintenance Services, Ground Equipment Group (Operator)

(Internal Competition)

#### Stages and Procedure of Examination System

First Stage: Written Examination - Full Marks 200

#### Weightage Allocation and Marks Distribution

S.No.	Paper	Subject	Time	Full Mark	Section	Marks
1	I	General Knowledge, Social Issues, Management and Institutional Awareness	3 Hrs.	100	Section "A" General Knowledge and Social issues	Multiple Choice Questions 50x1=50
					Section "B" Management & Institutional Awareness Test	Short Answer Questions 8x5=40 Long Answer Questions 1x10=10
2	II	Service Related	45 Min.	100	Multiple Choice Questions	50x2=100

#### Second Stage - Interview

##### Individual Interview

Full Marks - 30

#### द्रष्टव्य :

- लिखित परीक्षाको माध्यम भाषा नेपाली वा अंग्रेजी वा दुवै हुनेछ ।
- प्रथम, द्वितीय र तृतीय पत्रको लिखित परीक्षा छुट्टाछुट्टै हुनेछ ।
- लिखित परीक्षामा यथासम्भव पाठ्यक्रमका सबै एकाइबाट प्रश्नहरू सोधिनेछ ।
- वस्तुगत बहुवैकल्पिक (Multiple Choice) प्रश्नहरूको गलत उत्तर दिएमा प्रत्येक गलत उत्तर बापत २० प्रतिशत अङ्क कट्टा गरिनेछ तर उत्तर नदिएमा त्यस बापत अङ्क दिइने छैन र अङ्क कट्टा पनि गरिने छैन ।
- विषयगत प्रश्नमा प्रत्येक पत्र/विषयका प्रत्येक खण्डका लागि छुट्टाछुट्टै उत्तर पुस्तिकाहरू हुनेछन् । परीक्षार्थीले प्रत्येक खण्डका प्रश्नहरूको उत्तर सोही खण्डका उत्तर पुस्तिकामा लेख्नुपर्नेछ ।
- यस पाठ्यक्रम योजना अन्तर्गतका पत्र/विषयका विषयवस्तुमा जेसुकै लेखिएको भए तापनि पाठ्यक्रममा परेका कानून, ऐन, नियम तथा नीतिहरू परीक्षाको मितिभन्दा ३ महिना अगाडि (संशोधन भएका वा संशोधन भई हटाइएका वा थप गरी संशोधन भई) कायम रहेकालाई यस पाठ्यक्रममा परेको सम्झनु पर्दछ ।
- प्रथम चरणको परीक्षाबाट छनौट भएका उम्मेदवारलाई मात्र द्वितीय चरणको परीक्षामा सम्मिलित गराइनेछ ।
- यस भन्दा अगाडि लागू भएका माथि उल्लिखित सेवा/समूहको पाठ्यक्रम खारेज गरिएको छ ।
- पाठ्यक्रम लागू मिति :- २०७९।०५।०४

## Paper I: General Knowledge, Institutional Awareness and Management

Full Marks: 100

Time: 3 Hrs.

### Section: A (General Knowledge and Social Issues 25x2=50 Marks)

- 1.1 Geography of Nepal and the World (10 Marks)
  - 1.1.1 Continent, Ocean, Pole, Latitude, Longitude, Time, Distance, Mountains, Deserts, Rivers, Glaciers, Lakes, Climate, Trade Winds, Monsoon
  - 1.1.2 Physical, Socio-cultural and Economic Geography, Major Natural Resources and Demography of Nepal
- 1.2 History and Culture (10 Marks)
  - 1.2.1 Major Historical Events of the World
  - 1.2.2 Notable Events, Personalities and Socio-cultural Aspects of Ancient, Medieval and Modern History of Nepal
  - 1.2.3 Customs, Traditions, Values, Religions, Ethnicity, Languages, Cultures, Arts, Literature, Music and Heritages of Nepal
- 1.3 Economic Aspects of Nepal (10 Marks)
  - 1.3.1 Economic Indicators (Economic Growths, GDP, GNP, Per Capita Income, Remittance, Foreign Aid and Investment)
  - 1.3.2 Infrastructures of Development (Agriculture, Industry, Trade, Tourism, Transportation, Communication, Health, Electricity)
  - 1.3.3 Government Planning and Budgeting
- 1.4 Governance and Organizations (10 Marks)
  - 1.4.1 The constitution of Nepal; Federal Provincial and local governance
  - 1.4.2 General information about UNO, WTO, ICAO, WB, ADB, AIIB, SAARC and BIMSTEC
- 1.5 Contemporary Issues (10 Marks)
  - 1.5.1 Information on sustainable development, environment, pollution, climate change, biodiversity, demography, Urbanization, Science and technology
  - 1.5.2 Recent advanced and major achievements in Aviation Sector
  - 1.5.3 Major events and current affairs of national and international importance

### Section B: – Management and Institutional Awareness Test (50 Marks)

#### 2. Management Concepts (1x10) + (4x5) = 30 Marks

- 2.1. Concept of Management, modern approaches to management
- 2.2 vision Mission, Goal, Objectives, Targets, Strategies, Organization Structure
- 2.3 Authority and power Delegation, Leadership, Control, Coordination, Motivation, Team Work and Group dynamics
- 2.4 Managing workforce diversity and appreciative inquiry
- 2.5 Quality management and TQM Techniques
- 2.6 Time management, conflict management, crisis management, stress management, customer care
- 2.7 Outsourcing, inventory control
- 2.8 Job description, training, performance evaluation system
- 2.9 Corporate and strategic planning and management, corporate social responsibility

2.108 Ethics, integrity and accountability

**3. Institutional Awareness (4x5=20 Marks)**

3.1 History of Civil Aviation in Nepal

3.2 Nepal Airlines Corporation: Introduction, Objective and Scope

3.3 Current Employees' Service and Conditions Regulation of NAC (Leaves, Conducts, Discipline and Disciplinary Actions)

3.4 Corruption Control Act, 2059

3.5 Functions, Duties and Rights of Ministry of Culture, Tourism and Civil Aviation

3.6 Functions, Duties and Rights of Civil Aviation Authority of Nepal

## Paper II

### Service Related

Full Mark: 100 (Multiple Choice Questions)

Time: 45 minutes

- 1. Ground Handling Equipment Basics: 14 Marks**
  - 1.1 Role of GSEO in the organization
  - 1.2 Equipment marking and Identification codes
  - 1.3 Equipment utility/purpose.
  - 1.4 Equipment Types
  - 1.5 Definitions and specific aviation Ground Handling terms. DGR, ULDs, Push Back,
  - 1.6 Basic aircraft parts. NLG, MLG wings, Tail, service ports, Pitot, Tow pin, Aircraft servicing points
  
- 2. Equipment Operations Principles 14 Marks**
  - 2.1 Equipment Basic operation principles
  - 2.2 Equipment prime movers in the GSE Fleet
  - 2.3 Basics of Pneumatics and Hydraulics
  - 2.4 GSE Components, parts and assemblies
  - 2.5 Basics of Manual/Automatic / Hydrostatic Transmission
  
- 3. Ramp Safety: 20 Marks**
  - 3.1 Hand Signals Pictorial/ Marshalling.
  - 3.2 Accident Prevention and Safety Precautions.
  - 3.3 Basic Equipment recovery and Evacuation.
  - 3.4 Radio Telephonic communications
  - 3.5 Safety devices: Fire bottle, Head set/ ear plug/ Fluorescent overalls
  - 3.6 Fire Fighting; Class of fires, Fire Triangle, Fire principles, Fire Fighting methods  
Fire Hazards and principles of accident prevention, Suppression of fire and fire fighting equipment.
  - 3.7 Speed Limits in the Air Side
  - 3.8 Situational Awareness.
  - 3.9 FOD Foreign Object Debris.
  - 3.10 Airside Signs
  - 3.11 Walk Around Inspection Areas
  - 3.12 DGR: DGR identification labels, reporting
  - 3.13 Severe Weather precautions
  - 3.14 Spillage and Leakage
  - 3.15 Prop wash, Jet Blast
  - 3.16 Aircraft Inlet and exhaust hazard Areas

- 4. Equipment Operations Regulations: 14 Marks**
- 4.1 Staging Area; Purpose identification.
  - 4.2 Aircraft servicing procedures and clearance.
  - 4.3 Equipment specific SOP Cat A+, A and B GS Equipment
  - 4.4 Fault/ Occurrence reporting.
  - 4.5 Equipment capabilities and service limits of Cat A+, A and B GS Equipment
  - 4.6 Basic vehicular Traffic regulations
  - 4.7 Airside Tarmac regulations
  - 4.8 Airside Tarmac discipline- Do's and Don't's
- 5. Ground Equipment Management and Category Ratings: 12 Marks**
- 5.1 Turn around Time.
  - 5.2 Service Request Forms.
  - 5.3 Equipment Category Classification/Authorization
  - 5.4 CAAN Airside Driving Rules and Regulations
  - 5.5 Human Factors- Perception and Application in GSE Operations
  - 5.6 Aviation Security
- 6. Ground Equipment Operations SOP: 16 Marks**
- 6.1 General Precautions and Safety Measures
  - 6.2 Daily Inspection points in cat A+, A and B GS Equipment
  - 6.3 Incidence, Accident and IRR
  - 6.4 Incident Reporting
  - 6.5 Pre Operational Procedures for Cat A+, A and B GS Equipment
  - 6.6 Pre Docking procedures For Cat A+, A and B
  - 6.7 Docking procedures For Cat A+, A and B
  - 6.8 Aircraft push back procedures and precautions with conventional Push back tractors
  - 6.9 Aircraft push back procedures and precautions with Towbarless Push back tractors
- 7. Safety Management System SMS, 10 Marks**
- 7.1 Its Concept, application and advantages in respect to GS Equipment