

नेपाल नागरिक उड्डयन प्राधिकरण  
प्राविधिक सेवा, एभिएशन फायर सर्भिसेस समूह, सातौं तह, वरिष्ठ अधिकृत पदको खुला/आन्तरिक  
प्रतियोगितात्मक परीक्षाको पाठ्यक्रम  
द्वितीय पत्र – सेवा सम्बन्धी  
खण्ड (क) – ५० अङ्क

**1. Chemistry of Fire**

- 1.1 Introduction of fire
- 1.2 Classes of fire
- 1.3 Chemistry of combustion
- 1.4 Method of extinguishment
- 1.5 Heat and temperature
- 1.6 Fire behavior

**2. Airport Emergency Planning (AEP)**

- 2.1 Introduction, purpose and importance
- 2.2 Responsibility and role of each agency for each type of emergency
- 2.3 Emergency Operations Centre (EOC) and mobile command post
- 2.4 Airport emergency exercises
- 2.5 Review and documentation

**3. Level of Protection to be Provided**

- 3.1 Airport category
- 3.2 Amounts of extinguishing agents
- 3.3 Supply and storage of extinguishing agents
- 3.4 Critical area for calculating quantities of water
- 3.5 Discharge rates
- 3.6 Response time
- 3.7 Number of vehicles and equipment

**4. Preventive Maintenance of RFF Equipment and Ancillaries**

- 4.1 Maintenance procedures
- 4.2 Maintenance work areas and special tools
- 4.3 Performance testing of fire vehicles
- 4.4 Rescue equipment requirements
- 4.5 Maintenance and documentation
- 4.6 Maintenance record keeping
- 4.7 Protective clothing

**5. Aviation Security**

- 5.1 Basic concept
- 5.2 Access control
- 5.3 Screening
- 5.4 Airside and land side area
- 5.5 Airport permit

**6. Fire Service Communication**

- 6.1 System and facilities
- 6.2 Communication procedure
- 6.3 Logging System
- 6.4 Alerting System
- 6.5 Message receiving and dissemination procedure

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**7. Ambulance and Medical Services**

- 7.1 Importance
- 7.2 Triage and medical care
- 7.3 Care of ambulatory survivors
- 7.4 Care of fatalities

**8. Fire Prevention**

- 8.1 Causes of fire
- 8.2 Inspection, fire risk and preventive measures
- 8.3 Fire detection, protection and suppression system
- 8.4 Fire prevention and public education
- 8.5 Fire prevention during refueling operations

**9. Aircraft Types, Engines and Systems**

- 9.1 Types of aircraft
- 9.2 Aircraft engines
- 9.3 Aircraft systems

खण्ड (ख) - ५० अङ्क

**10. Extinguishing Agents**

- 10.1 Type of extinguishing agents
- 10.2 Characteristics of extinguishing agent

**11. Rescue and Fire Fighting Service**

- 11.1 Fire station administration
- 11.2 Fire station activities
- 11.3 Leadership
- 11.4 Design and siting of airport fire station
- 11.5 Equipment and ancillaries

**12. Personnel Protective Equipment and Self-Contained Breathing Apparatus**

- 12.1 Introduction
- 12.2 Types of breathing apparatus
- 12.3 Components of self-contained breathing apparatus
- 12.4 Donning and doffing methods
- 12.5 Care and maintenance

**13. Aircraft Firefighting and Rescue Procedure**

- 13.1 Fighting aircraft and helicopter fires
- 13.2 Rescue tactics and associated equipment requirements
- 13.3 Accidents involving dangerous goods
- 13.4 Post-accident procedures
- 13.5 Post-incident operations
- 13.6 Compartment fire & tactical ventilation

**14. Aerodrome Safety**

- 14.1 Concept of State Safety Program (SSP)
- 14.2 Safety policy, Safety risk management, Safety assurance & Safety promotion

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14.3 Hazard identification, Safety Risk Assessment, Risk mitigation, gap-analysis, Acceptable Level of Safety, SMS implementation plan

**15. Dangerous Goods**

- 15.1 Introduction
- 15.2 Categories
- 15.3 Packaging and labeling
- 15.4 Provision of handling Dangerous goods for the safe air transportation in Nepal

**16. Airport Certification Regulation**

- 16.1 Airport certificate
- 16.2 Aerodrome manual
- 16.3 Obligation of the airport operator
- 16.4 Exemptions
- 16.5 ICAO requirement on aerodrome certification
- 16.6 Aerodrome certification requirements in Nepal

**17. Human Factors Principles**

- 17.1 General
- 17.2 SHELL MODEL
- 17.3 Human Factors Issue in RFF Service
- 17.4 Operational effectiveness and standards
- 17.5 Safety and well-being of RFF personnel

**18. Airport Facilities Affecting Rescue and Firefighting Services**

- 18.1 Airport water supply
- 18.2 Emergency access roads

द्वितीय पत्रबाट निम्नानुसार प्रश्न सोधिनेछ :

द्वितीय पत्र (विषयगत)				
विषय	खण्ड	अङ्कभार	छोटो उत्तर	लामो उत्तर
सेवा सम्बन्धी	(क)	५०	२ प्रश्न X ५ अङ्क = १०	४ प्रश्न X १० अङ्क = ४०
	(ख)	५०	२ प्रश्न X ५ अङ्क = १०	४ प्रश्न X १० अङ्क = ४०
जम्मा		१००	४ प्रश्न X ५ अङ्क = २०	८ प्रश्न X १० अङ्क = ८०