

श्री कार्यरथी विभाग भर्ना छनौट निर्देशनालय
जंगी अड्डा

प्राविधिक अमल्दार मेकानिकल/एयरक्राफ्ट क्लिनर (सै.ह.म.नि.) पद (खुला) को पाठ्यक्रम

समय : ३ घण्टा

पूर्णाङ्क : १००

उत्तीर्णाङ्क : ४०

उद्देश्यहरु:

यो पाठ्यक्रम नेपाली सेनाको प्रा.अम. मेकानिकल पदको उम्मेदवार छनौट परीक्षाको लागि निर्धारण गरिएको हो । प्राविधिक अमल्दार पदका उम्मेदवार छनौटको लिखित परीक्षामा सरिक हुने उम्मेदवारहरुको पेशा सम्बन्धी विषयलाई आधार मानि प्रश्नहरु सोधिनेछन् ।

(क) लिखित परीक्षाको माध्यम नेपाली/अंग्रेजी भाषा हुनेछ ।

(ख) निम्न पत्रहरुको पाठ्यक्रमको रुपरेखाअनुसार विषयवस्तु हुनेछ ।

(ग) लिखित परीक्षाबाट छनौट भएका उम्मेदवारहरुलाई मात्र अर्को चरणको परीक्षामा सम्मिलित गराइने छ ।

(घ) प्रश्नपत्र निर्माण गर्दा सम्भव भएसम्म पाठ्यक्रममा समावेश भएका सबै विषय समेटिने छ ।

(ङ) नेपाली सेनाको तत्कालीन आवश्यकता तथा विविध परिस्थितिमा नेपाली सेनाको अनुकूल हुने गरी उल्लेखित विवरणहरुमा हेरफेर हुन सक्नेछ ।

(च) पाठ्यक्रम लागू मिति : २०६९/०२/२४ गतेदेखि ।

प्रश्नको किसिम	प्रश्न संख्या र अंक	कैफियत
लामो उत्तर दिनु पर्ने प्रश्न	५ X १० = ५०	
छोटो उत्तर दिनु पर्ने प्रश्न	५ X ५ = २५	
वस्तुगत	२५ X १ = २५	

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1. **Basic Science**

Physics

- Newton's Laws of Motion
- Force, Pressure, Work, Power
- Area, Volume, Weight, Unit conversion
- Lever Mechanism
- Heat, Light, Sound
- Magnetism and Electrostatics
- Current Electricity
- Modern Physics

Chemistry

- Atom, Molecule, Atomic structure
- Chemical reaction and chemical balance
- Properties of gases
- Properties of solids
- Liquids and solutions
- Ionic equilibria in aqueous solutions
- Oxidation reduction reactions
- chemical bond
- Periodic properties
- Metallic and non metallic elements
- Organic chemistry
- Acid Base
- Electrolytes
- Electroplating

2. **Electronics & Electrical**

- Voltage resistance
- Basic circuit components & symbols
- OHMS law, power
- Resistance in parallel, Resistance in series
- Magnetism EMF
- Battery
- Fuse, CB, Resays, Switch
- Ammeter, Voltmeter, Multi-meter
- Diode, Transistor, Amplifier, Rectifier, Inverter

3. **Tools**

- Descriptions & Introduction
- Different Types of Engineering Tools
- Vice
- Hammer
- Punches & Drafts
- Limits and fits
- Chisels
- Hacksaw

- File
 - Screwdriver
 - Measuring & Marking tools
 - Pliers
 - Spanners
 - Wrenches
 - Special tools
 - Puller
 - Extractors
 - Different types of gears
- 4. Workshop**
- Metals, Alloy, Compound
 - Heat treatment
 - Workshop Machines
 - Turning, Drilling, Milling, Reaming, Grinding
 - Cutting
 - Shaper
 - Grinders
 - Thread cutting
 - Welding
 - Soldering, Brazing
 - Workshop safety
- 5. Aircraft Introduction**
- Fixed wing
 - Rotor wing
 - Aircraft components / parts (Structure)
 - Aerodynamics
 - Engine Introduction
- 6. Aircraft systems
(Intro, Block diagram, Maintenance, Procedure)**
- Control system
 - Fuel system
 - Lubrication system
 - Hydraulic system
- 7. Electrical & Instrument system
General introduction**
- Lighting
 - Battery charging
 - Basic instrument
 - Maintenance procedure
- 8. Radio system
General introduction of receiver & transmitter**
- General introduction of VHF/HF/Intercom maintenance procedure
 - Types of communication radios
- 9. Store Procedure
Introduction**
- Spare parts return / requisition procedure
 - Documentation procedure

10. Ground equipment

- Introduction of different ground equipment
- Maintenance procedure
- Handling procedure
- Fire extinguisher
- Refueling procedure, precaution
- Marshaling

**11. Flight Safety
Introduction**

- Flight safety in Hangar
- Flight safety in ground
- Flight safety in towing in / out
- flight safety in air

12. Flight Operation

- Introduction
- Weight & Balance
- Flight operations procedure

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प्राविधिक अमल्दार मेकानिकल/एयरक्राफ्ट क्लिनर (सै.ह.म.नि.) प्रयोगात्मक
परीक्षा पाठ्यक्रम

समय : १ घण्टा
प्रश्नसंख्या : ५ वटा

पूर्णाङ्क : ५०
उत्तीर्णाङ्क : २५

1. Identification of tools & their uses
 - a) Files
 - b) Hammer
 - c) Taps & dies
 - d) Different types of nuts, bolts and rivets
 - e) Measuring tools
 - f) Plier & screw driver
2. Machine tools & their uses
 - a) Lathe Machine & types
 - b) Shaper Machine
 - c) Milling
 - d) Grinding & types
3. Automobiles equipments
 - a) IC and External combustion engines
 - b) Types of batteries
 - c) Components of engines and their terminologies
 - d) Difference between automobiles oil and aircraft oil
4. Maintenance safety and support equipment
 - a) Fire extinguisher & types
 - b) Break down, Preventive & Proactive Maintenance
 - c) Maintenance safety & health hazards
5. Aircraft general
 - a) Types of aircraft
 - b) Aircraft terminology
 - c) Types of aircraft lubricants
 - d) Aircraft engines