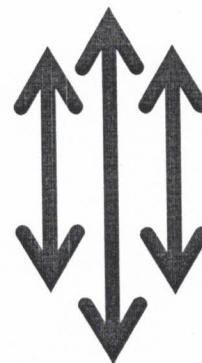


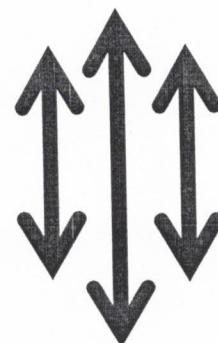
नेपाली सेना

श्री भर्ना छनौट निर्देशनालय, कार्यरथी विभाग,

जंगी अड्डा



प्रा.उ.से. ईलेक्ट्रिकल ईन्जिनियर (आन्तरिक) पदको लिखित
परीक्षाको पाठ्यक्रम



२०७७

नेपाली सेना

प्रा.उ.से. ईलेक्ट्रिकल इंजिनियर (आन्तरिक) पदको लिखित परीक्षाको पाठ्यक्रम

समय: ४ घण्टा

पूर्णाङ्क : १५०

उत्तीर्णाङ्क : ६०

यो पाठ्यक्रम नेपाली सेनाको प्रा.उ.से. ईलेक्ट्रिकल इंजिनियर (आन्तरिक) पदका उम्मेदवार छनौट परीक्षाको लागि निर्धारण गरिएको हो । लिखित परीक्षामा सरिक हुने उम्मेदवारहरूको पेशा सम्बन्धी विषयलाई आधारमानी प्रश्नहरू सोधिने छ ।

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

(ख) लिखित परीक्षाबाट छनौट भएका उम्मेदवारहरूलाई मात्र अर्को चरणको परीक्षामा सम्मिलित गराईनेछ ।

(ग) प्रश्नपत्र निर्माण गर्दा पाठ्यक्रममा समावेश भएका सबै विषयहरूलाई यथासंभव समिटनेछ ।

(घ) बस्तुगत र विषयगत संयुक्त रूपमा पूर्णाङ्क र उत्तीर्णाङ्क कायम गरिनेछ ।

(ङ) बस्तुगत र विषयगत परीक्षाको पाठ्यक्रम एउटै हुनेछ ।

(च) बस्तुगत र विषयगत विषयको लिखित परीक्षा एकैपटक वा छुट्टाछुट्टै गरी लिन सकिनेछ ।

(छ) यो पाठ्यक्रम मिति २०७७/०६/०६ गतेबाट लागु हुनेछ ।

लिखित परीक्षाको योजना र पाठ्यक्रम

विषय	पूर्णाङ्क	उत्तीर्णाङ्क	परीक्षा प्रणाली	प्रश्न संख्या अङ्क	समय
पेशा	७५		बस्तुगत (Objective)	बहु वैकल्पिक प्रश्न (MCQs)	७५ प्रश्न x १ अङ्क = ७५
सम्बन्धी	७५	६०	विषयगत (Subjective)	छोटो उत्तर लामो उत्तर	७ प्रश्न x ५ अङ्क = ३५ ४ प्रश्न x १० अङ्क = ४०

२०७७/०६/०६
२०७८/०६/०६
२०७९/०६/०६
२०८०/०६/०६

नेपाली सेना

प्रा.उ.से. इलेक्ट्रिकल इंजिनियर (आन्तरिक) पदको लिखित परीक्षाको पाठ्यक्रम र योजना

1. Principle of Electrical Engineering

Basic Concept of Electricity, Electric Circuit, Electrical Power and Energy, Electrolysis and its applications, Electrostatics, Magnetism and Electromagnetism, Electromagnetic Induction, Fundamentals AC Circuit, Three phase System, Network Theorems.

2. Engineering Materials and Process

Magnetic Materials, Resistor Alloys, Metal Forming Process, Heat Treatment of Metals, Insulating Materials, Machine Tools Processes, Joining of Metals, Semiconductor Materials.

3. Electric Circuit Theory

DC Network Theorems and Circuit Analysis, AC Fundamentals, Three Phase System.

4. Basic Electronics

Introduction, Circuit Fundamentals, Diodes, Bipolar Junction Transistors (BJT), Field Effect Transistor, Transistor Biasing and AF Amplifier, Electronic Power Supply, Introduction to Digital Electronics Technique, Binary Notation, Two State Devices, Logic Gates, Multivibrators, Counters, A/D & D/A Conversion, Memories, Digital Displays, Introduction to ALU.

5. Electrical Measurement and Measuring Instruments

Measuring Instruments, Resistance Measurement, Inductance and Capacitance Measurement, Shunt Multiplier, Potentiometers, Current and Potential Transformer, Power, Energy and Frequency Measurement, Measurements of Non-Electrical Quantities, Digital meters construction, Operation and Applications.

6. Generation, Transmission and Distribution of Electrical Power

Generation of Electrical Energy, Substation, Supply System, Transmission Lines, Distribution System, Voltage Control, System interconnection.

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7. Electrical Machines

Single Phase Transformer, Three Phase Transformer, D.C. Generator, D.C. Motors, Three Phase Induction Motor, Single Phase A.C. Motor, Synchronous Generator and Synchronous Motor.

8. Utilization of Electrical Energy

Introduction, Illumination, Industrial Utilization of Electrical Energy, System of Traction, Power Factor Correction, Tariff

9. SWITCH GEAR AND PROTECTION

Fundamentals of Protection System, Fuses and MCB, Isolators and Contractors, Circuit Breaker, Circuit and Potential Transformers, Fault Calculation, Earthing and Protection Against Over Voltages, Relay and Protection Scheme.

10. Electrical Maintenance and Repair

Introduction Maintenance, Repair, Testing, Maintenance of wiring System, Applications Maintenance and Repair, Maintenance and Repair and Repair of Motorised Appliances, Maintenance and Repair of Transformers, Prevention Maintenance Of Electrical Motors and Rewinding of Motors, Trouble-shooting of Electrical Motors, High Voltage Testing and cable Fault Location.

11. POWER ELECTRONICS

Power Electronics Devices, Power Rectifier, AC Voltage Controller, Inverter, DC to DC Chopper, Applications of Power Electronics Devices.

12. SAFETY RULES AND REGULATION

Safe use of Electrical Components, Electric Equipments Earthing Fire Hazards, Fire Fighting Technique.

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Handwritten signature in black ink, appearing to read 'P~'.

माथि उल्लेखित पाठ्यक्रमका एकाइहरुबाट सोधिने प्रश्नहरुको संख्या निम्नानुसार हुनेछ

विषय	परीक्षा प्रणाली			के	
	वस्तुगत (Objective)	विषयगत (Subjective)			
	बहुबैकल्पिक प्रश्न (MCQS) (प्रश्न X अंक)	छोटो उत्तर (प्रश्न X अंक)	लामो उत्तर (प्रश्न X अंक)		
1	5x1	1x5			
2	6x1		1x10		
3	6x1	1x5			
4	5x1				
5	10x1	1x5		1x10	
6	10x1	1x5			
7	10x1	1x5	1x10		
8	5x1				
9	4x1	1x5			
10	5x1		1x10		
11	4x1	1x5			
12	5x1				
Total	75 x 1 = 75	7 x 5 = 35	4 x 10 = 40		

प्रयोगात्मक परीक्षाको पाठ्यक्रम

समय: ६० मिनेट

पूर्णाङ्क: ५०

उत्तीर्णाङ्क: २५

S.N.	Topic	Marks	Time (Minutes)
1	Paper simulation	15	15
2	Component Identification and it's application	10	10
3	Use Of Various Measuring Instrument	10	10
4	Fault Finding	10	15
5	Viva	5	10
	Total	50	60

समाप्त 
  