

लोक सेवा आयोग
नेपाल नागरिक उड्डयन प्राधिकरण, प्राविधिक, इलेक्ट्रिकल इन्जिनियरिङ्ग, सातौं, वरिष्ठ अधिकृत पदको
आन्तरिक तथा खुला प्रतियोगितात्मक लिखित परीक्षा
२०७८।०९।०३

पत्र : द्वितीय
समय : ३ घण्टा

पूर्णाङ्क : १००

विषय: सेवा सम्बन्धी

प्रत्येक Section को उत्तर छुट्टाछुट्टै उत्तरपुस्तिकामा लेख्नुपर्नेछ । अन्यथा उत्तरपुस्तिका रद्द हुनेछ ।

Section "A"

50 Marks

1. Write a short note on "voltage level selection in a power system". 5
2. Distinguish between the basic operating principle of a DC generator and an induction generator with the help of necessary equivalent circuit. 5
3. What is a circuit breaker and the major duties required to perform? State different types of circuit breakers and explain the working principle and characteristics of any one of them in detail. 10
4. Mentioning the causes and effects of low power factor, describe any two methods of power factor improvement. What are the advantages of such improved power factor? 10
5. Explain the working principle of a diesel generator. 10
6. State methods of speed control for three-phase induction motor and explain any one of them in detail. 10

Section "B"

50 Marks

7. Briefly discuss the function and working of Visual Approach Slope Indicator Systems at airport. 5
8. State and explain the basic principle of AC to DC and DC to AC conversions with the help of necessary block diagram. 5
9. Discuss the key steps and documents that should be included in planning a project. 10
10. Explain the concept of 'touch voltage'. How can touch voltage be reduced? 6+4=10
11. What is management information system? Explain its significance. 4+6=10
12. Prove that the illumination at a point on a surface is proportional to cosine of the angle which ray makes with normal to the surface at that point. 10

- The End -