

लोक सेवा आयोग
नेपाल नागरिक उड्डयन प्राधिकरण, प्राविधिक, ई. एण्ड टे. कम. इन्जिनियरिङ्ग, छैटौं, अधिकृत पदको
आन्तरिक प्रतियोगितात्मक लिखित परीक्षा
२०८०।०९।२०

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. What is switching mode power supply? Describe its basic operation with its advantages. 2+3=5
2. Introduce the electrical cables. Discuss the classification of electrical cables. 2+3=5
3. Draw the circuit diagram of a Zener diode voltage stabilizer and explain its operation in detail. 10
4. What is propagation of radio waves? Explain different types of antennas used in various frequency bands. Describe the differences between PCM and TDM with their advantages and disadvantages. 1+4+5=10
5. Differentiate between twin-wire and coaxial cable with their frequency limitations and applications. 10
6. What is a cell? Discuss about different types of cell. Differentiate between cell and battery. List the names of different types of soldering guns. 1+4+3+2=10

Section "B"

50 Marks

7. List any four properties of an optical fiber and briefly explain them. 5
8. Write short note on:
a) DVOR
b) ICAO CNS/ATM concept 2.5+2.5=5
9. What are the principles of primary Surveillance Radar? What are the advantages of monopulse secondary surveillance radar (MSSR) compared to secondary surveillance radar (SSR)? How does the DME system work? Describe both the ground equipment and the airborne equipment of DME in brief. 3+2+2+3=10
10. Define perigee and apogee of a satellite system. Draw and explain the basic architecture of VSAT communication system. 4+6=10
11. How does frequency counter function? Explain with the help of its functional diagram. 10
12. State the need and objectives of maintenance management in airport facilities. Differentiate between preventive, corrective and emergency maintenance. 6+4=10

- The End -