

लोक सेवा आयोग
नेपाल नागरिक उड्डयन प्राधिकरण, प्राविधिक, मेकानिकल इन्जिनियरिङ्ग, पाँचौ, वरिष्ठ सहायक पदको
खुला प्रतियोगितात्मक लिखित परीक्षा
२०७९।०४।१८

पत्र : द्वितीय
समय : २ घण्टा ३० मिनेट

पूर्णाङ्क : १००

विषय: सेवा सम्बन्धी

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

Section "A"

50 Marks

1. Discuss the types of engineering material used in mechanical workshop. 5
2. Define the terms cutting speed, feed and depth of cut. Why are these important in machining? 3+2=5
3. Explain the working principle of Milling Machine with a necessary block diagram. 5
4. What is dimensioning? What is importance of dimensioning? 2+3=5
5. Explain briefly break-even point and working capital of any organization. 2.5+2.5=5
6. Explain direct and indirect cost with examples. 5
7. Write similarities between heat and work. Why is work considered 'high grade' of energy but heat as 'low grade' energy? 3+2=5
8. Compare heat capacity and specific heat of a material. 5
9. Write the classification of IC engines in detail. 10

Section "B"

50 Marks

10. Draw components of vapour compression cycle used in Air Conditioning and explain the major process. 5
11. List out types of refrigerants. How can we say that any particular refrigerant is "environment friendly"? Explain. 5
12. Explain the working principle of EGR system. 5
13. Compare preventive and predictive maintenance system with examples. 5
14. Explain the diminishing balance method of depreciation. 5
15. What is the main purpose of record keeping? 5
16. What is safety policy? Write down. 5
17. Discuss major concerns of safety in a workplace. 5
18. Describe the braking system and cooling system of vehicle with a diagram. 5+5=10

- The End -