

लोक सेवा आयोग

स्थानीय तह अन्तर्गत प्राविधिकतर्फ इञ्जिनियरिङ्ग सेवा, सिभिल समूह, छैटौ तह,
इञ्जिनियर पदको प्रतियोगितात्मक लिखित परीक्षा

समय :- ३ घण्टा

पत्र: द्वितीय

पूर्णाङ्क :- १००

विषय:- जनरल इञ्जिनियरिङ्ग

निम्न प्रश्नहरूको उत्तर खण्ड (Section) अनुसार छुटाछुट्टै उत्तरपुस्तिकामा लेख्नुपर्नेछ, अन्यथा उत्तरपुस्तिका रद्द हुनेछ ।
परीक्षामा मोबाइल वा यस्तै सञ्चार उपकरणहरू प्रयोग गर्न पाइने छैन ।

खण्ड (Section) - A

1. Mention different types of road pavements. Explain how you would design an appropriate pavement for a hill road. 3+7=10
2. Write down some methods of Bio-engineering practices along hill side of Nepal. 10
3. (a) What are the various criteria that should be fulfilled while designing sub-surface drains? 5
(b) What are the various tests that are used for assessing the suitability of road aggregates? 5

खण्ड (Section) - B

4. (a) What are the different types of distribution service reservoir used in water supply project in Nepal? How its storage capacity is determined? 5
(b) What is self-clearing velocity and non-scouring velocity in a sewer? Why sewers are not designed to full flow? 5
5. Write down short note on:
(a) Sources of solid waste 3
(b) Design features of septic tank 3
(c) Various types of joints used in pipes 4

खण्ड (Section) - C

6. Why river training is necessary? Describe the various methods of river control. 10
7. (a) What is berm? Why is it provided in the canal? 2+2=4
(b) Draw sketches to show the section of canal. 2
i) Partly in cutting and partly in filling 2
ii) Wholly in cutting 2
iii) Wholly in filling
8. (a) What types of alternative energy systems are feasible in Nepal? 5
(b) Explain with the help of a neat sketch the hydrological cycle. 5

खण्ड (Section) - D

9. Differentiate Environmental Impact Assessment (EIA) with Initial Environmental Examination (IEE). 10
10. Explain with neat sketches the method of setting out of a school building in a municipal area. 10