

# कपिलवस्तु नगरपालिका

## LGCDP तर्फको सिभिल इन्जिनियर लिखित परीक्षाको पाठ्यक्रम

परीक्षाको चरण	परीक्षाको किसिम	अंकभार	समय
प्रथम चरण	लिखित (विषयगत)	१००	३ घण्टा
द्वितीय चरण	कम्प्युटर सिप परीक्षण	१०	१५ मिनेट
	अन्तर्वार्ता	२०	—

### परीक्षार्थीलाई निर्देशन

- प्रत्येक खण्डका प्रश्नहरूको उत्तर छुट्टा छुट्टै उत्तर पुस्तिकामा लेख्नु पर्नेछ। एउटा खण्डको प्रश्नको उत्तर अर्को खण्डको उत्तर पुस्तिकामा लेखेमा सो प्रश्नको उत्तर परीक्षण हुने छैन र सो वापत कुनै अंक दिइने छैन।
- परीक्षा शुरु हुने समय भन्दा ३० मिनेट ढिलो गरी आउने परीक्षार्थीलाई परीक्षामा समावेश गराइने छैन। परीक्षा शुरु भएको ४० मिनेट भन्दा अगाडी कक्षा कोठाबाट बाहिर निस्कन पाइने छैन।
- परीक्षामा अमर्यादित कार्य गरेको पाइएमा सम्बन्धित उम्मेदवारको उत्तर पुस्तिका रद्द गरिनेछ।
- परीक्षामा कालो मसीमात्र प्रयोग गर्नुपर्नेछ।
- प्रथम चरणबाट छनौट भएका उम्मेदवारहरूलाई मात्र द्वितीय चरणको परीक्षा कार्यक्रममा समावेश गरिनेछ।
- अर्को सूचना प्रकाशित भएमा बाहेक सार्वजनिक बिदा परेको कारणबाट परीक्षा कार्यक्रम स्थगित हुने छैन।
- परीक्षा अंग्रेजी वा नेपाली वा दुवै भाषामा दिन सकिनेछ।

### प्रथम चरण (३ घण्टा)

#### Section A- 25 Marks

- 1. Building Materials and Construction** 25%
- 1.1 Stone masonry: Types of stone used in stone masonry, specifications of stone masonry.
  - 1.2 Brick masonry: Classification of bricks, specifications of different types of bricks, testing of bricks, different shapes of bricks.
  - 1.3 Hollow Concrete Blocks: Various types of concrete blocks, use of concrete blocks in buildings.
  - 1.4 Sand: Requirement of good quality sand, sieve analysis, fineness modules.
  - 1.5 Lime: Different types of lime and their uses test of freshness.
  - 1.6 Mortar: Types of mortar, specifications, proportion of mortar for various types of masonry works.
  - 1.7 Paintings: Types of paints, specification for various types of painting Works.
  - 1.8 Water proofing: Water proofing at basement, ground floor and roofs, common water proofing problems in Nepal.
  - 1.9 Roofing Systems: Different types of roofing system.
  - 1.10 Doors and windows: Different types of doors and windows, door and window details, merits and demerits of metal door and windows.
  - 1.11 Walls: Different types of wall system, Load bearing walls, partition walls and curtain walls.
  - 1.12 Pre-fabrication: Principles of pre-fabrication, advantages and disadvantages of a pre-fabricated building.
  - 1.13 Flooring: Different types of flooring, specification of floorings.
  - 1.14 Plastering: Different types of plasters and coating materials.
  - 1.15 Formworks: Shoring, underpinning, scaffolding and formworks.
  - 1.16 Building Elements: Foundation, super structure, lintel, floors, roofs, sun control devices, parapet, staircase, emergency stairs, elevators and escalators
  - 1.17 Building services: water supply and sanitation, electrification, heating and ventilation and air-conditioning.
  - 1.18 National Building Code: Hierarchy of building codes and its application, procedure for implementation of building code in Nepal.
  - 1.19 Development Control System in municipalities in Nepal
  - 1.20 Maintenance and repair of buildings.
  - 1.21 Principles of low cost construction techniques.
  - 1.22 Current building norms for estimating and costing.

#### Section B- 30 Marks

- 2. Structural Design and Analysis** 30%
- 2.1 Design of RCC footings, columns, slabs, beams..
  - 2.2 Analysis of structural system in a building.
  - 2.3 Design of steel structure.

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- 2.4 Design of timber structure.
- 2.5 Design of masonry structure.
- 2.6 Common structural problems in RCC buildings in Nepal.
- 2.7 Requirements of earthquake resistant building construction.
- 2.8 Computer Aided Design (CAD) of building structure.
- 2.9 Mandatory Rule of Thumb in building design.
- 2.10 Non-engineered earthquake resistant building design.

### Section C- 30 Marks

- 3. Housing and Urban Planning** 30 %
- 3.1 Hierarchy of urban settlements, 3.2  
Types of urban settlements in Nepal
  - 3.3 Base Maps:
  - 3.4 Hierarchy of plans
  - 3.5 Principles of land use planning
  - 3.6 Building byelaws
  - 3.7 Periodic plans for local authorities
  - 3.8 Planning legislation of Nepal
  - 3.9 Environmental issues in urban development.
  - 3.10 Institutions involved in urban planning and development in Nepal.
  - 3.11 Types of urban development programmes in Nepal. 3.12  
Conservation of heritage sites,
  - 3.13 Settlement planning for disaster mitigation.
  - 3.14 Municipalities of Nepal and their role in urban development.
  - 3.15 Town Development Committees and their role in urban development.
  - 3.16 Different types of housing,
  - 3.17 Principles of housing design,
  - 3.18 Different models of land development,
  - 3.19 Squatter and slums,
  - 3.20 Private housing development,
  - 3.21 Rural housing, housing development programmes in Nepal,
  - 3.22 Present status and practices of building construction in Nepal

### SECTION D- 15 Marks 15%

#### 4. LB's Related Guidelines / Norms

- 4.1 Local Self Governance Act 2055
- 4.2 Local Self Governance Regulation 2056
- 4.3 LB's Related Guidelines, Norms (MCPM Guidelines 2066, Resource Mobilization Guideline 2069, Social Mobilization Guideline ).

#### No. of Question and Marks

Section	Short Question	Long Question	Total Marks
A	3 x 5 = 15	1 x 10 = 10	25
B	4 x 5 = 20	1 x 10 = 10	30
C	4 x 5 = 20	1 x 10 = 10	30
D	3 x 5 = 15		15

लिखित परीक्षा कार्यक्रम :- मिति २०७२/१२/२४ गते दिनको ठिक १:०० बजे

परीक्षा केन्द्र :- कपिलवस्तु नगरपालिका कार्यालयको सभाहल

द्वितीय चरण : कम्प्युटर सिप परीक्षण

1.Nepali and English Typing ( 2.5)

2.Microsoft Office,Window Basic and Ms Word, Excel, Power Point, Email and internet ( 7.5)

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