

Seat No. **MAR_APR 2025 SUMMER EXAMINATION****11731 Bachelor of Technology (NEP-2.0)****Sub. Name: Basic Civil Engineering****Sub. Code: 109817/108718****Day and Date: SEPTEMBER,10-09-2025****Total Marks: 60****Time: 10:30 AM To 01:00 PM**

- Instructions:**
1. All questions are compulsory
 2. Assume suitable data wherever necessary and mention it boldly
 3. Figures to the right indicate full marks
 4. Use of Scientific calculator is allowed

Q1) Solve any three Questions [15]

- a. Explain the scope of any three branches of civil engineering? [5]
- b. Explain in brief characteristics and uses of following building materials [5]
 1. Stone
 2. Bricks
- c. Enlist various Principles of planning and explain Circulation in detail? [5]
- d. An old map showing a line was drawn to a magnetic bearing of $340^{\circ}15'$, When the declination was $4^{\circ}30' W$. Find the magnetic bearing of a line if present magnetic declination is $5^{\circ} E$. [5]

Q2) Solve any three [15]

- a. Discuss various sources of water for water supply scheme ? [5]
- b. Write a note on septic tank. [5]
- c. Explain with sketches four main layouts of water distribution systems [5]
- d. Along with sketch explain working of various components of conventional water supply scheme? [5]

Q3) Solve any three [15]

- a. Define transportation engineering and explain different modes of transportation. [5]
- b. Distinguish between rigid pavement and flexible pavement. [5]
- c. Draw a typical cross section of road in cutting and road in embankment showing details components. [5]

d. What are the requirements of the ideal permanent way? [5]

Q4) Solve any three [15]

a. What is watershed management, Explain in Detail. [5]

b. Explain systems of Irrigation? [5]

c. State Importance of rainwater harvesting [5]

d. What is Irrigation Engineering? Explain benefits of irrigation engineering [5]

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (11731) Bachelor of Technology (NEP-2.0) (109817) Basic Civil Engineering Part 1 SEM 2

2] (11731) Bachelor of Technology (NEP-2.0) (108718) Basic Civil Engineering Part 1 SEM 1