

## BSc Fire &amp; Safety (NEP) Semester-2 Examination

MDC\_124

## Mechanics of Solid &amp; Town Planning

Time : 1-00 Hour]

April-2024

[Max. Marks : 25]

Instruction: Non-scientific calculators are allowed.

Q-1 (a) What was A.L. Basham's observation regarding ancient law for housing? 5

Q-1 (b) Briefly describe the construction of roads in plains and in mountainous terrain? 5

OR

Q-1(a) Write short notes on any two: 5

Soil Testing, Making of Bricks, Assembling pillars

Q-1 (b) Explain the laws of housing formulated in the Maurayan period. 5

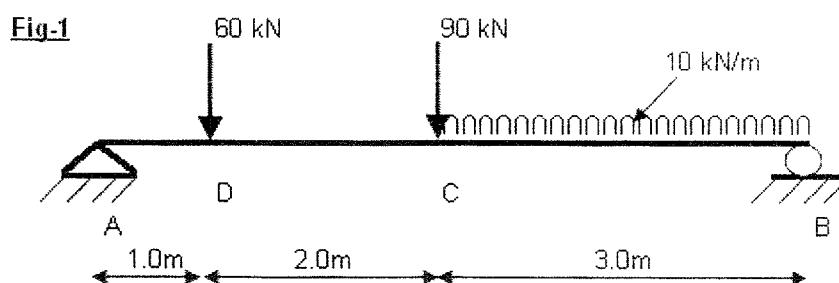
Q-2 (a) What is foundation, types of foundation and functions of foundation? 5

Q-2(b) Describe floors and types of floors with requirements floors must satisfy. 5

OR

Q-2(a) List out the various methods used to determine the resultant of number of forces and Explain any one of them. 5

Q-2(b) Calculate shear force and bending moment at all important points and draw SFD and BMD. 5



Q-3 MCQ/Short Answer 5

- (1) Define External force and Internal force.
- (2) In ancient times broken roads were repaired every year with \_\_\_\_\_
  - (a) Cement
  - (b) lime
  - (c) Lime & gravel
  - (d) all of these
- (3) What is the capacity of underground water storage for fire fighting/
  - (a) 1 lakh ltrs.
  - (b) 1.5 lakh ltrs.
  - (c) 2 lakh ltrs.
  - (c) 3 lakh ltrs.
- (4) Education buildings fall in which group?
  - (a) Group A
  - (b) Group B
  - (c) Group C
  - (d) Group D
- (5) Write down the mathematical representation of Lami's theorem.