

**BSc Fire & Safety (NEP) Semester-2 Examination****MDC\_124****Mechanics of Solid & Town Planning****April-2024****Time : 1-00 Hour]****[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

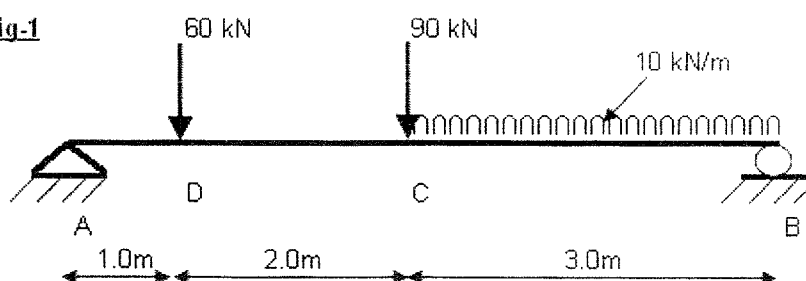
Q-2 (a) What is foundation, types of foundation and functions of foundation? 5

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

**Fig-1**

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.      (d) 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.