

COURSE CODE(CREDITS): 18B1WCE631 (03)

MAX. MARKS: 35

COURSE NAME: Advanced Structural Analysis

COURSE INSTRUCTORS: Mr. Chandra Pal Gautam

MAX. TIME: 2 Hours

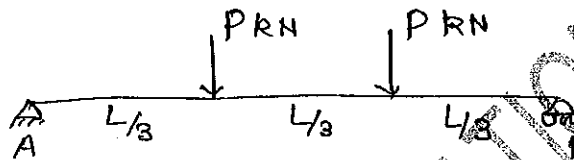
*Note: (a) All questions are compulsory.*

*(b) Marks are indicated against each question in square brackets.*

*(c) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems*

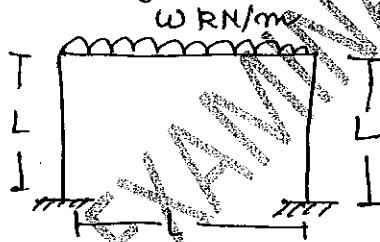
**Q.1.** Find the collapse load for the given beam.

[CO-4] [7]



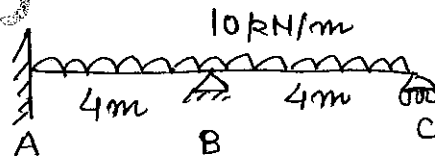
**Q.2.** Find the collapse load for the given frame structure.

[CO-4] [7]



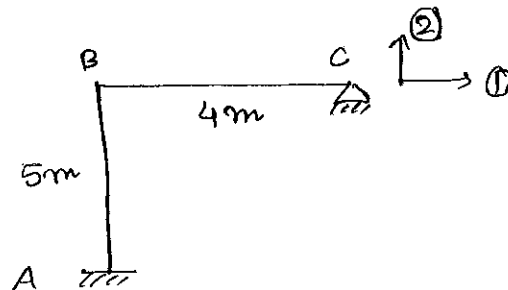
**Q.3.** Find the support reactions of the given beam by using flexibility matrix method.

[CO-5] [7]



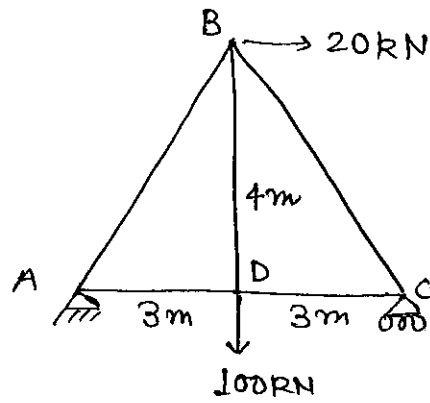
**Q.4** Write the flexibility matrix for the given frame at the mentioned nodes.

[CO-5] [6]



Q.5. Find the support reaction of the given truss by using Stiffness Matrix Method.

[CO-4] [8]



UNIT TEST 3 EXAMINATION - June-2024