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SULTAN SALAHUDDIN ABDUL AZIZ SHAH

EFFECTIVE LEARNING WITH MOBILE APPLICATION

MYMOSS

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EFFECTIVE LEARNING WITH MOBILE EDUCATION

MYMOSS

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CHAPTER 1: INTRODUCTION OF MECHANIC OF STRUCTURE



INTRODUCTION

Mechanic of Structure

The field of engineering known as "mechanics of structures" focuses on the analysis and behaviour of structures under various loading scenarios.

It includes comprehending how a structure's forces, deformations, and stresses interact to maintain its stability, strength, and functionality.

The mechanics of structures encompasses various principles and concepts, including:

Statics

Statics deals with the equilibrium of structures under the action of forces. It involves analyzing the forces acting on a structure and determining the resultant forces and moments.

Stress and Strain Analysis

Stress refers to the internal resistance within a material to deformations caused by external forces.

Strain, on the other hand, measures the deformation or elongation of a material under stress.

Stress and strain analysis involves calculating and analyzing these quantities to assess the behavior and strength of structures.

CHAPTER 2 : PRINCIPLE OF EQUILIBRIUM



DEFINITION OF EQUILIBRIUM PRINCIPLE

The equilibrium principle, also known as the principle of equilibrium or the principle of balanced forces, is a fundamental concept in physics that describes the state of an object or system when all the forces acting upon it are balanced, resulting in a state of rest or uniform motion.

External forces are the forces applied to the object or system from its surroundings, while internal forces are the forces exerted by the object's or system's components on each other. For an object or system to be in equilibrium, the sum of all the external forces acting on it must be zero ($F = 0$) and the sum of all the torques (rotational forces) acting on the object or system must be zero ($=0$).

The equilibrium principle is based on Isaac Newton's laws of motion and is often used to analyze and predict the behavior of objects and systems under various conditions, providing insights into the forces and interactions involved.

CHAPTER 3: MANUFACTURING OF MYMOSS





EDUCATION MOBILE LEARNING APP IN MECHANIC OF CIVIL ENGINEERING STRUCTURE



INTRODUCTION OF MYMOSS

MYMOSS application is an application used in Mechanic of Civil Engineering Structure subjects registered under DCC20053. The subject is offered in semester two as a civil engineering major subjects. This MYMOSS app is a device that helps student perform the calculations found in the subject. The calculation topics involved are topic 1 and topic 2, namely Mechanic of Structure and Equilibrium Principles.

The function of MYMOSS was created to help student to do calculations more quickly and accurate. Therefore, students can save time and make easier for students to understand the sub-topics taught. In addition, this app also have notes on the main display to help students understand the calculations. Utilizing this apps, students can opened the notes inside for quick and fast references.



Title :Education Mobile Learning Apps in Mechanic of Civil Engineering Structure (MYMOSS)

Aim :The goal of creating of MYMOSS application is to help student learn more effectively

Objective of MYMOSS apps :

- To produce MYMOSS application for student effectiveness in learning.
- To evaluate student learning performance using MYMOSS application.
- To determine the satisfaction among the students effective learning using MYMOSS apps.

Advantages of MYMOSS :

- Helping students can easily understand how the calculation are done.
- helping students to speed up the calculations process.
- The application is simple to use and quick to load.





MY MAXIS 4G LTE 100% 10:15

MYMOSS PSA LOGIN

 Username

 Password

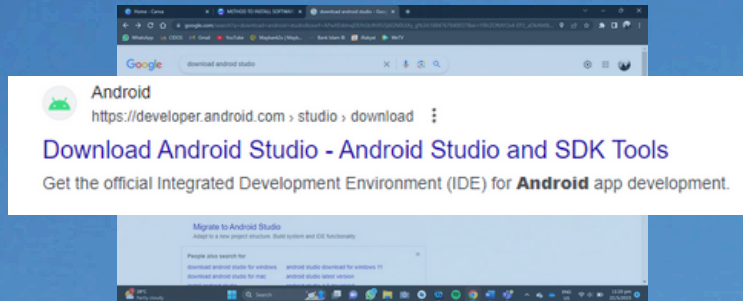
LOGIN

[Register for new user](#)



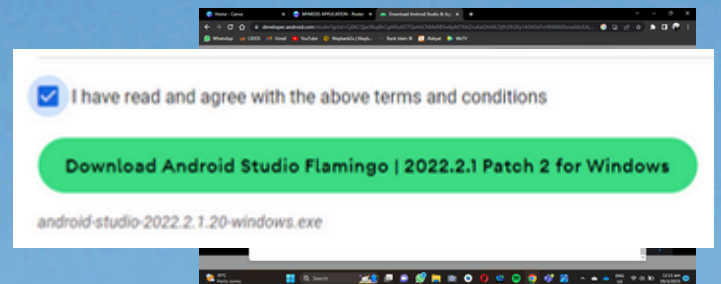
Fast Online Learning !

METHOD TO INSTALL SOFTWARE TO DEVELOP MYMOSS APPLICATION

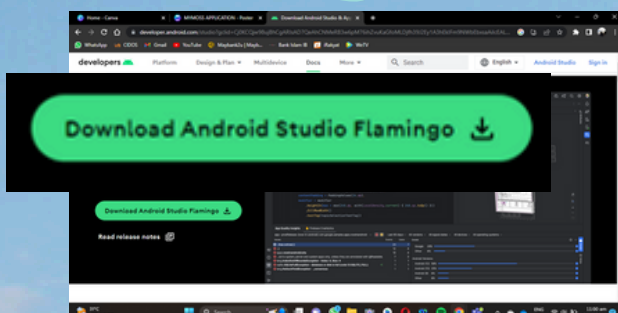


4. Click in right box "i have read..
5. Click Download button.

1. Open Goggle and search for Android studio.
2. Download android studio.



3. Click Download for new Version.

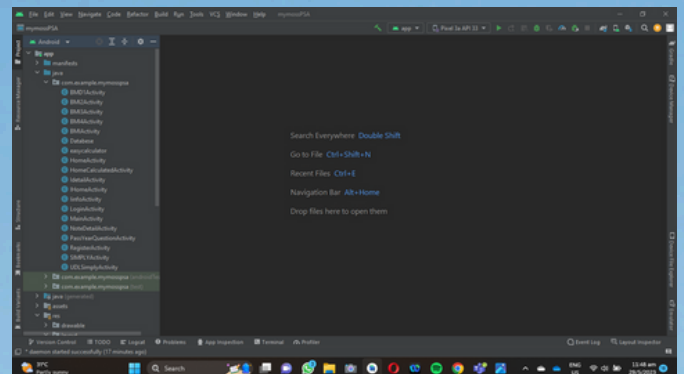


METHOD TO INSTALL SOFTWARE TO DEVELOP MYMOSS APP

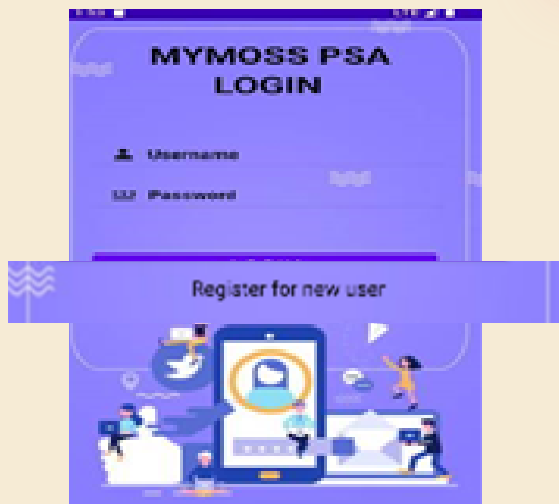


8. Start Coding

**6. After Download Click
Android Studio.
7. Start open project**



HOW TO USE THE MYMOSS APPLICATION



After completing the registration, you can login by entering username and password that has been registered.

Before logging in, you need to register first.



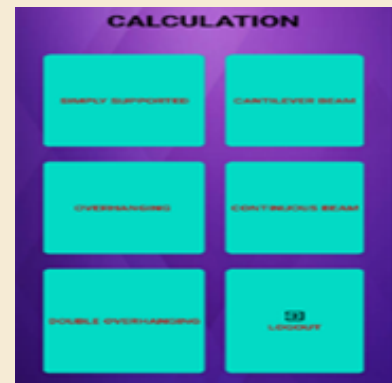
Enter your username, email and password to register.

HOW TO USE THE MYMOSS APPLICATION



Select simply supported beam.

There are 6 items on the front page.



Select calculation.



HOW TO USE THE MYMOSS APPLICATION

HA

M

LOAD

LENGTH

Enter the values of HA, M, Load and Length and press submit.

Select pin or roller.

SIMPLY SUPPORTED BEAM

Enter HA

ENTER M

Enter Load 1

Enter Length 1

Enter Load 2

Enter Length 2

Enter Load 3

Enter Length 3

Enter Load 4

Enter Length 4

SUBMIT

HOW TO USE THE MYMOSS APPLICATION



Our project info

Select ihome.



HOW TO USE THE MYMOSS APPLICATION



Select I-detail.



NOTA TOPIC 1 MYMOSS

INTRODUCTION OF MECHANICS OF STRUCTURES

1.1 DEFINITION

Mechanics :

Studies of moving object (Forces that cause movements)

Structure :

a systems of joints of structural members designed to support loads/ forces stably and to remains in shape.

Structural Mechanics

study of structural characteristics and behavior when loads are applied. when a load is applied to an object, it will deform depending on the magnitude and direction of the load are applied.

1.2 CATEGORIES OF FORCE

EXTERNAL FORCE

- are associated with the loads applied onto a structure.
- they consist of the structure's own weight and the external loads applied on it.
- these external force will genere reaction forces that will cause the structure to be in equilibrium state.



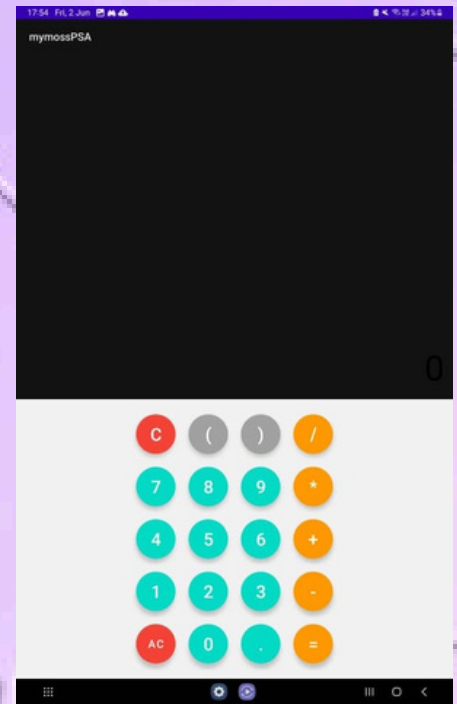
Figure : External Forces



Click NOTE.

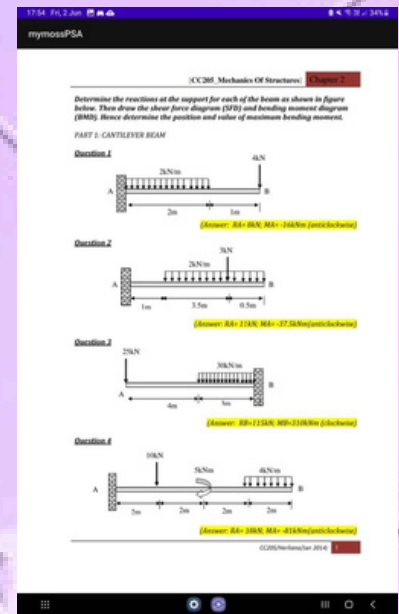


HOW TO USE THE MYMOSS APPLICATION



Select idetail.

HOW TO USE THE MYMOSS APPLICATION



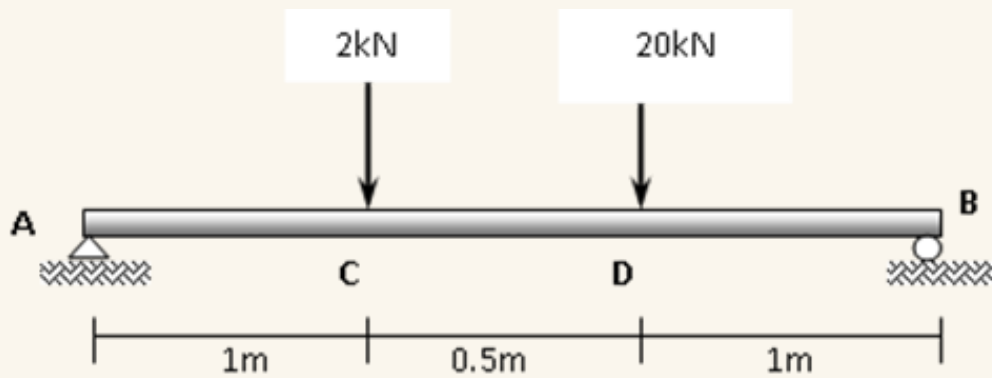
Select question.

CHAPTER 4: QUESTION & ANSWER



CALCULATE REACTION FORCE, SHEAR FORCE AND MOMENT VALUE USING MYMOSS APP.

QUESTION 1



RA :

MA :

RB :

MC :

FA :

MD :

FC :

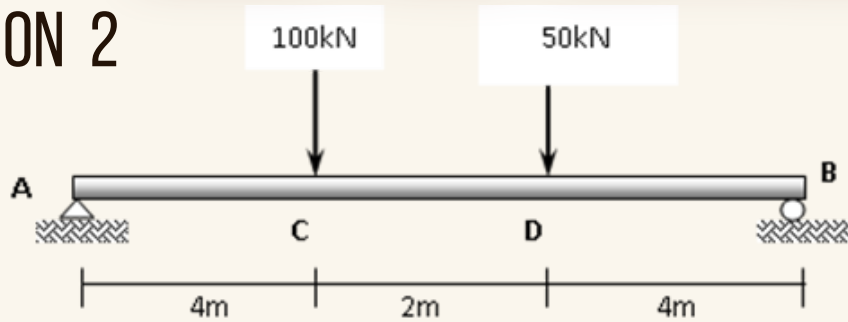
MB :

FD :

FB :

CALCULATE REACTION FORCE, SHEAR FORCE AND MOMENT VALUE USING MYMOSS APP.

QUESTION 2



RA :

FA :

MA :

RB :

FC :

MC :

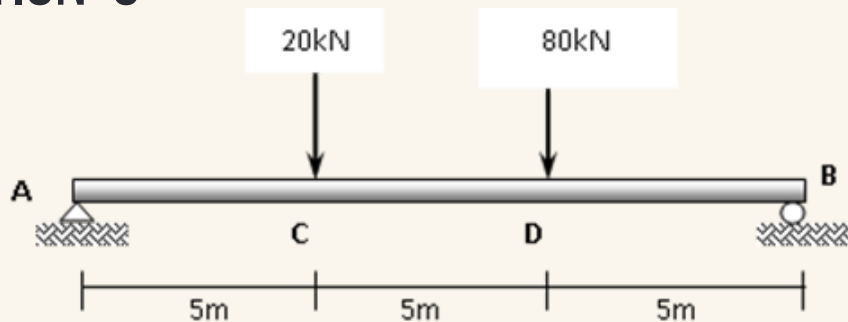
FD :

MD :

FB :

MB :

QUESTION 3



RA :

FA :

MA :

RB :

FC :

MC :

FD :

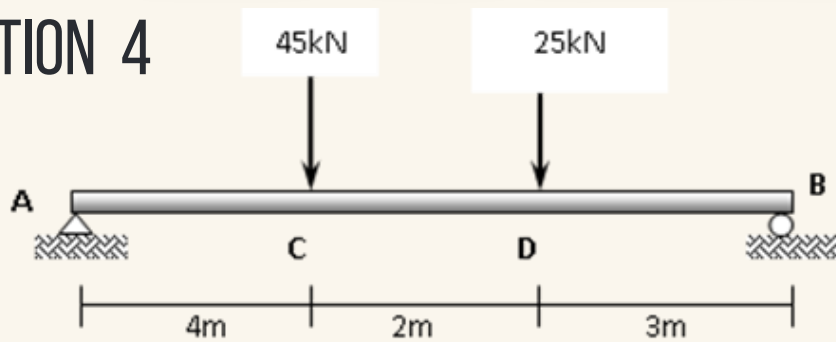
MD :

FB :

MB :

CALCULATE REACTION FORCE, SHEAR FORCE AND MOMENT VALUE USING MYMOSS APP.

QUESTION 4



RA :

FA :

MA :

RB :

FC :

MC :

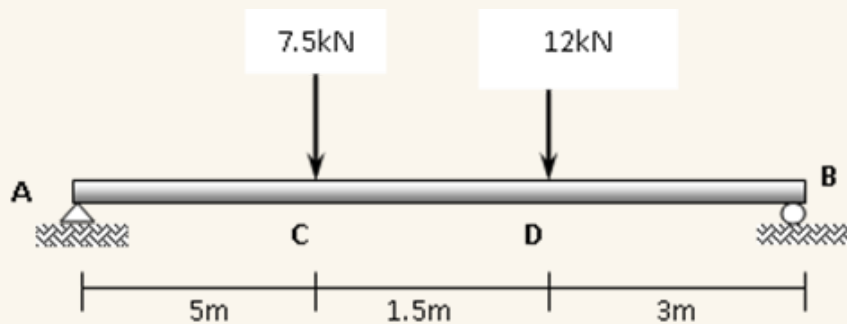
FD :

MD :

FB :

MB :

QUESTION 5



RA :

FA :

MA :

RB :

FC :

MC :

FD :

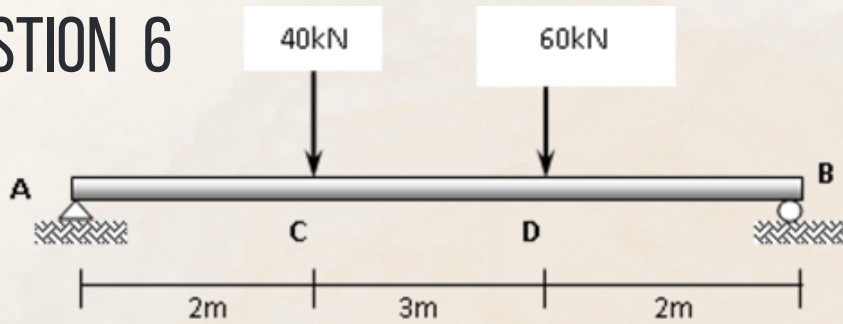
MD :

FB :

MB :

CALCULATE REACTION FORCE, SHEAR FORCE AND MOMENT VALUE USING MYMOSS APP.

QUESTION 6



RA :

FA :

MA :

RB :

FC :

MC :

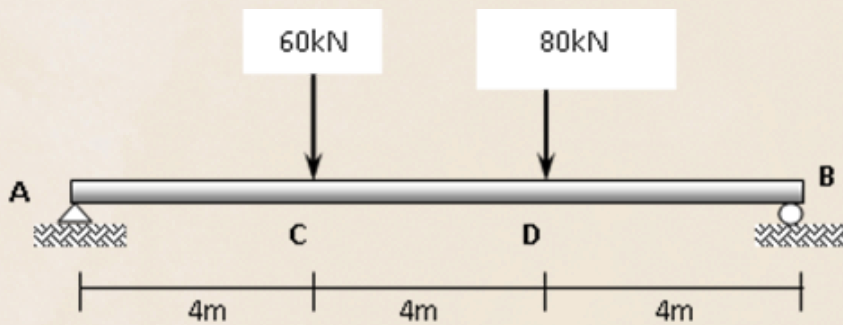
FD :

MD :

FB :

MB :

QUESTION 7



RA :

FA :

MA :

RB :

FC :

MC :

FD :

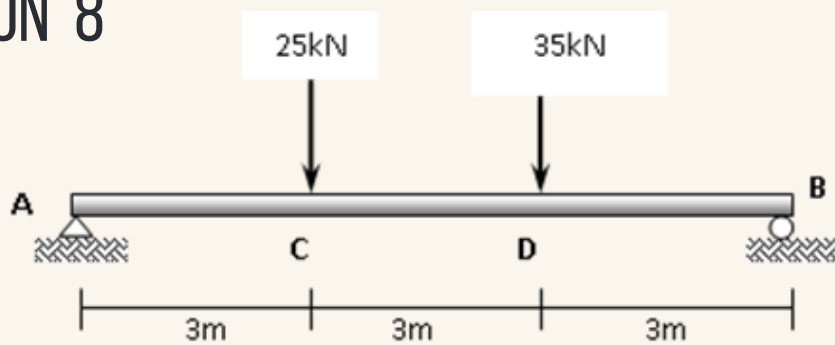
MD :

FB :

MB :

CALCULATE REACTION FORCE, SHEAR FORCE AND MOMENT VALUE USING MYMOSS APP.

QUESTION 8



RA :

FA :

MA :

RB :

FC :

MC :

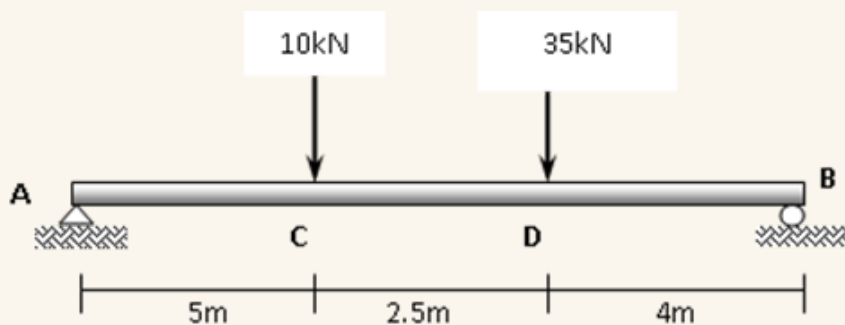
FD :

MD :

FB :

MB :

QUESTION 9



RA :

FA :

MA :

RB :

FC :

MC :

FD :

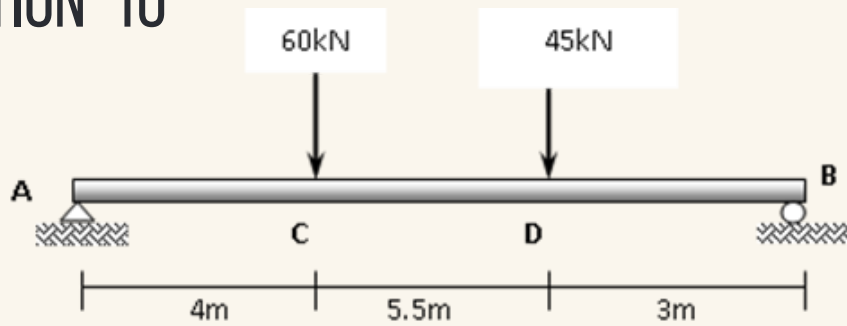
MD :

FB :

MB :

CALCULATE REACTION FORCE, SHEAR FORCE AND MOMENT VALUE USING MYMOSS APP.

QUESTION 10



RA :

FA :

MA :

RB :

FC :

MC :

FD :

MD :

FB :

MB :

ANSWER

QUESTION 1

RA :9.2KN

FA :9.2KN

MA :0KNM

RB :12.8KN

FC :7.2KN

MC :9.2KNM

FD :- 12.8KN

MD :12.8KNM

FB :0KN

MB :0KNM

QUESTION 2

RA :80KN

FA :80KN

MA :0KNM

RB :70KN

FC :-20KN

MC :320KNM

FD :-70KN

MD :280KNM

FB :0KN

MB :0KNM

QUESTION 3

RA :40KN

RB :60KN

FA :40KN

FC :20KN

FD :-60KN

FB :0KN

MA :0KNM

MC :200KNM

MD :300KNM

MB :0KNM

QUESTION 4

RA :33.33KN

RB :36.67KN

FA :33.33KN

FC :-11.67KN

FD :-36.67KN

FB :0KN

MA :0KNM

MC :133.33KNM

MD :110KNM

MB :0KNM

QUESTION 5

RA :7.34KN	FA :7.34KN	MA :0KNM
RB :12.16KN	FC :-0.16KN	MC :36.71KNM
	FD :-12.16KN	MD :36.47KNM
	FB :0KN	MB :0KNM

QUESTION 6

RA :45.71KN	FA :45.71KN	MA :0KNM
RB :54.29KN	FC :5.71KN	MC :91.43KNM
	FD :-54.29KN	MD :108.57KNM
	FB :0KN	MB :0KNM

QUESTION 7

RA :66.67KN

FA :66.67KN

MA :0KNM

RB :73.33KN

FC :6.67KN

MC :266.67KNM

FD :-73.33KN

MD :293.33KNM

FB :0KN

MB :0KNM

QUESTION 8

RA :28.33KN

FA :28.33KN

MA :0KNM

RB :31.67KN

FC :3.33KN

MC :85KNM

FD :-31.67KN

MD :95KNM

FB :0KN

MB :0KNM

QUESTION 9

RA :17.83KN

FA :17.83KN

MA :0KNM

RB :27.17KN

FC :7.83KN

MC :89.13KNM

FD :-27.17KN

MD :108.70KNM

FB :0KN

MB :0KNM

QUESTION 10

RA :51.6KN

FA :51.6KN

MA :0KNM

RB :53.4KN

FC :-8.4KN

MC :206.4KNM

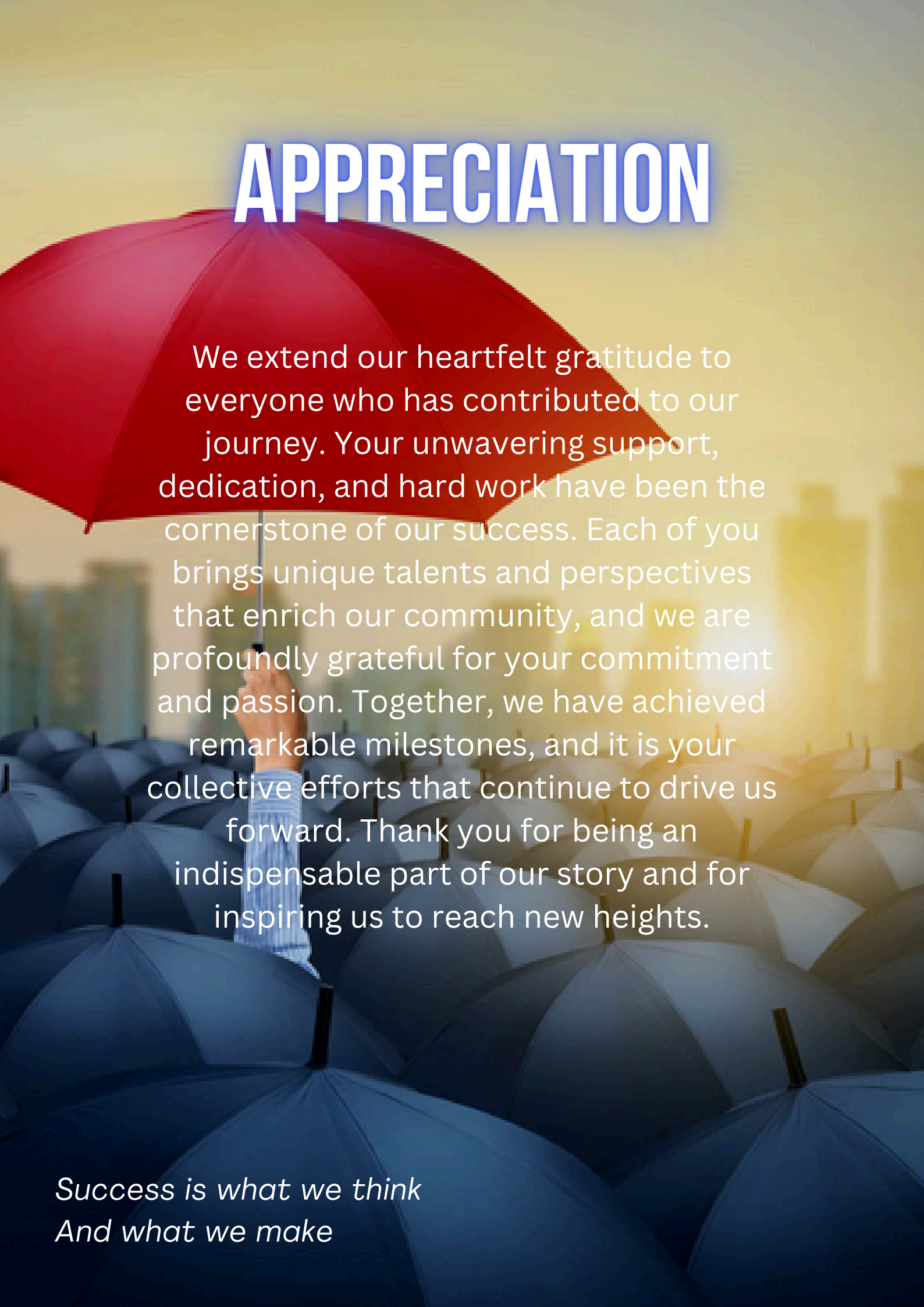
FD :-53.4KN

MD :160.2KNM

FB :0KN

MB :0KNM

APPRECIATION

A hand holding a red umbrella over a crowd of blue umbrellas. The background is a warm, golden-yellow sky with a city skyline visible in the distance. The red umbrella is the central focus, with a hand visible holding its handle. Below it, a dense crowd of blue umbrellas fills the foreground and middle ground, creating a sense of a large gathering.

We extend our heartfelt gratitude to everyone who has contributed to our journey. Your unwavering support, dedication, and hard work have been the cornerstone of our success. Each of you brings unique talents and perspectives that enrich our community, and we are profoundly grateful for your commitment and passion. Together, we have achieved remarkable milestones, and it is your collective efforts that continue to drive us forward. Thank you for being an indispensable part of our story and for inspiring us to reach new heights.

*Success is what we think
And what we make*



SPECIAL THANKS

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