

Strength & Stability - Section B (8 Marks)

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height	wood	shape	colour	base
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1. (a) A structure is considered strong if it can support a heavy load without breaking or collapsing. The strength of an object or structure depends heavily on the type of material used and its (i) _____. For example, a bridge made of concrete is much stronger than a bridge made of (ii) _____.

[2 Marks]

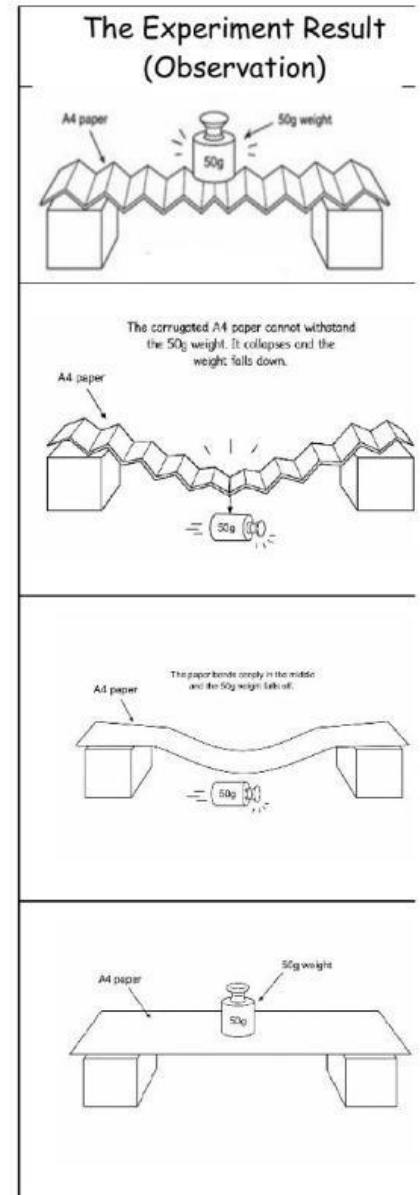
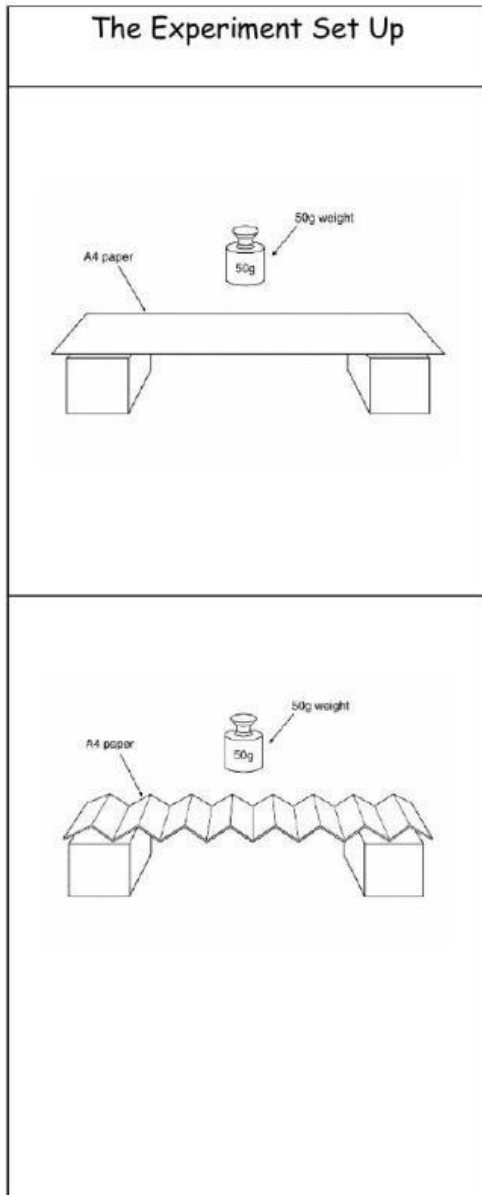
- (b) Write **TRUE** or **FALSE** for each statement below.

Concrete and steel are examples of strong materials often used to build large structures like bridges and skyscrapers.	
Increasing the thickness of a structural beam makes it easier to break.	
An object with a larger base area is more stable than an object with a smaller base area.	
The shape of a structure only affects its stability, but it has absolutely no effect on its strength.	

[2 Marks]

Strength & Stability - Question 2(a)

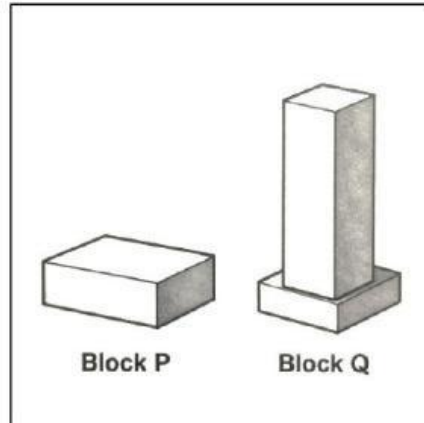
- (a) Match the experiment setup on the **Left** to the correct observation diagram on the **Right** to show how structure affects strength. Draw a line to connect them.



(2 Marks)

Strength & Stability - Question 2(b)

- (b) Observe the diagram below and read the four statements that follow.
Tick (/) at the correct statements.



Block P is more stable than Block Q because Block P has a larger base area in contact with the ground.	
If a wind machine blows air at both blocks with the same force, Block Q will tip over first.	
Block Q is more stable than Block P because it stands taller, which lowers its centre of gravity.	
Block P and Block Q have the exact same level of stability because they are identical blocks with the same mass.	

[2 Marks]