

SMART EXAM RESOURCES
SUBJECT: PHYSICS
TOPIC: TURNING EFFECT OF A FORCE
SET-1-QP-MS

- 1 (a) Fig. 1.1 shows a helicopter which is stationary at a height of 1500 m above the ground.

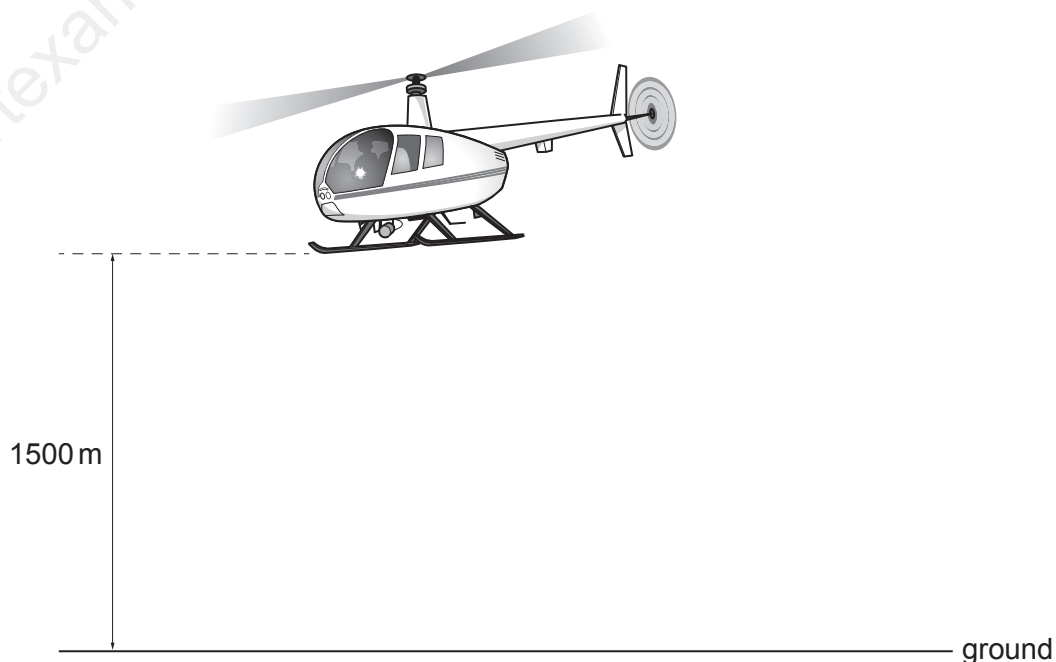


Fig. 1.1 (not to scale)

- (i) State the **two** conditions necessary for the helicopter to remain in equilibrium.

condition 1

.....

condition 2

.....

[2]

MARK SCHEME:

no resultant / net force	B1
no resultant/net moment	B1

- 2 Describe an experiment involving vertical forces to show that there is no net moment on an object in equilibrium. You may draw a diagram in the space provided.

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..... [3]

MARK SCHEME:

clear diagram or description (of object) with pivot and <u>vertical</u> forces / weights / masses / cord tension causing moments in each direction	B1
indicate / measure forces and perpendicular distances	B1
calculates a moment or shows / describes how to AND confirms equality of total moment (in each direction) AND statement of equilibrium / balance	B1