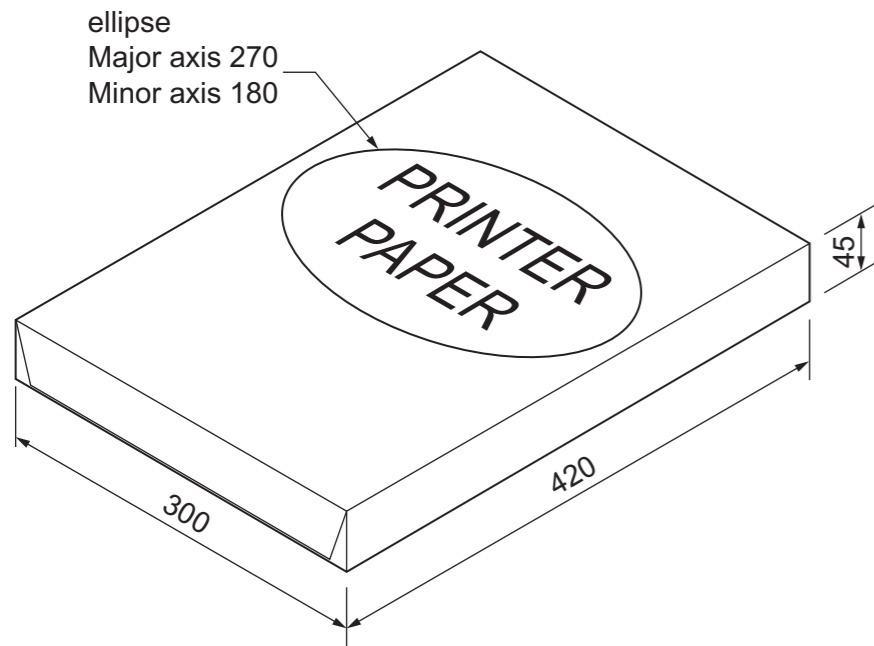


**Section A**

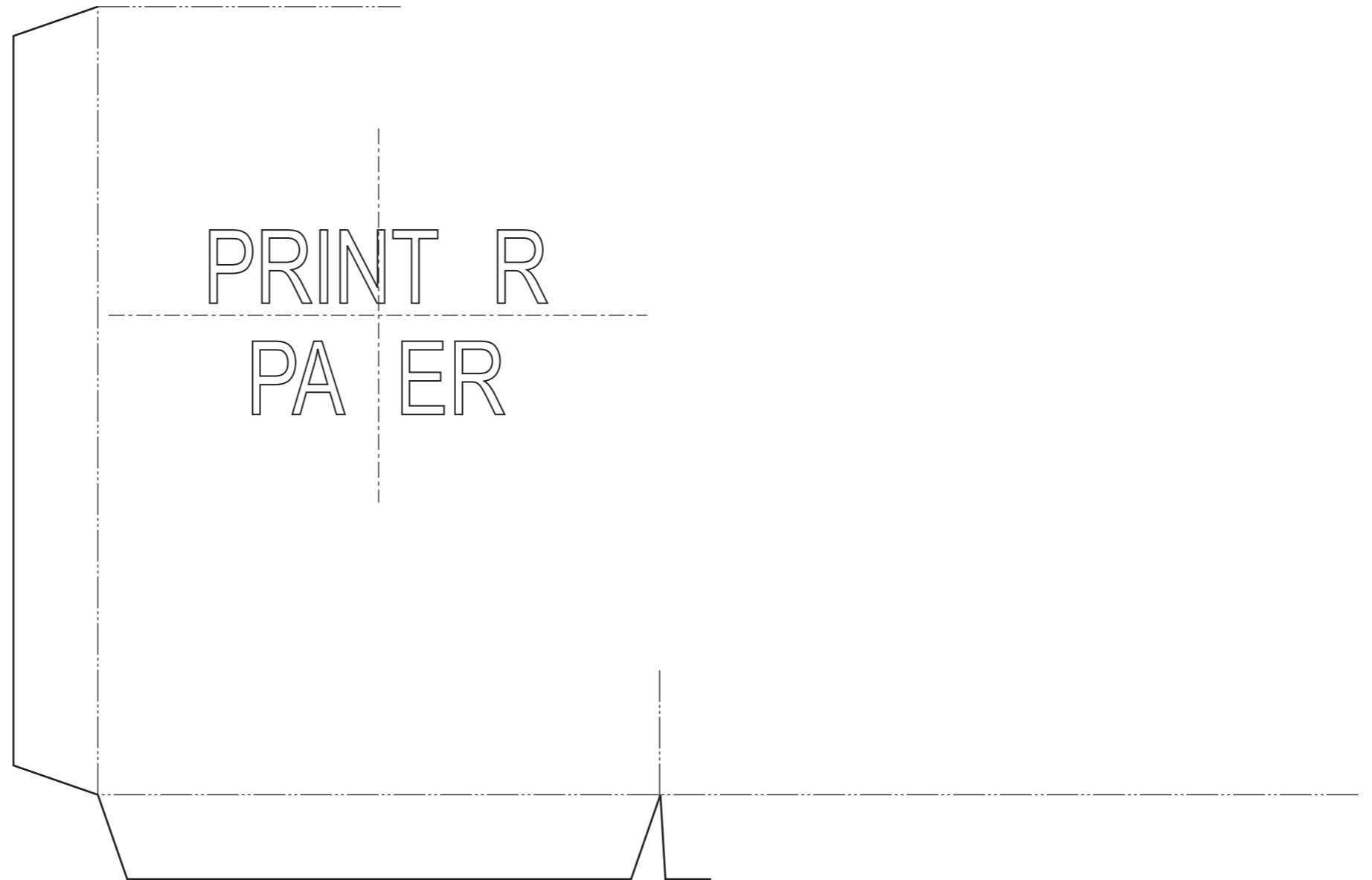
Answer **all** questions in this section.

**A1** A package for printer paper is shown below.



In the space provided to the right, complete the development (net) of the package to a scale of 1:3 by drawing:

- (a) the outer shape of the package [9]
- (b) the ellipse on the front of the package [6]
- (c) the missing letters of PRINTER PAPER. [2]



**0445/52** Oct/Nov 2020 **1 hour**  
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Centre Number .....

Candidate Number .....

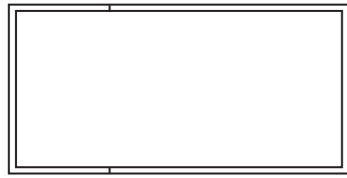
Candidate Surname .....

Other Names .....

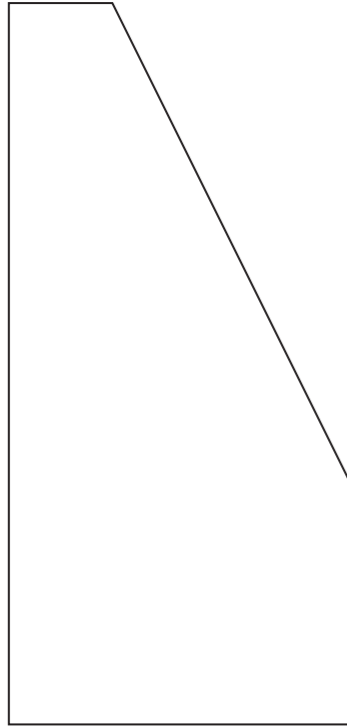
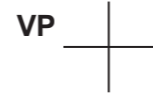
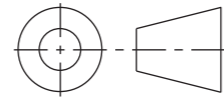
**[Turn over]**

For Examiner's use

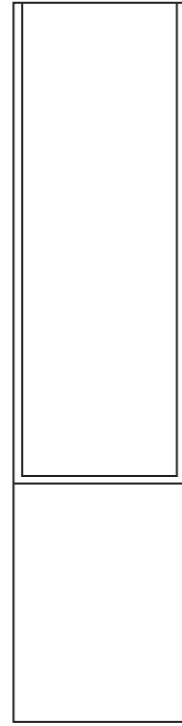
**A2** Orthographic views of a box file for the printer paper are shown below.



plan



side view



front view

Complete the one-point perspective of the box file shown opposite.

Ignore the thickness of the material.

[6]

**A3** The package for the printer paper is to be produced in quantities of 20,000.

Offset Lithography will be used to print information onto the package.

State **two** advantages of using Offset Lithography.

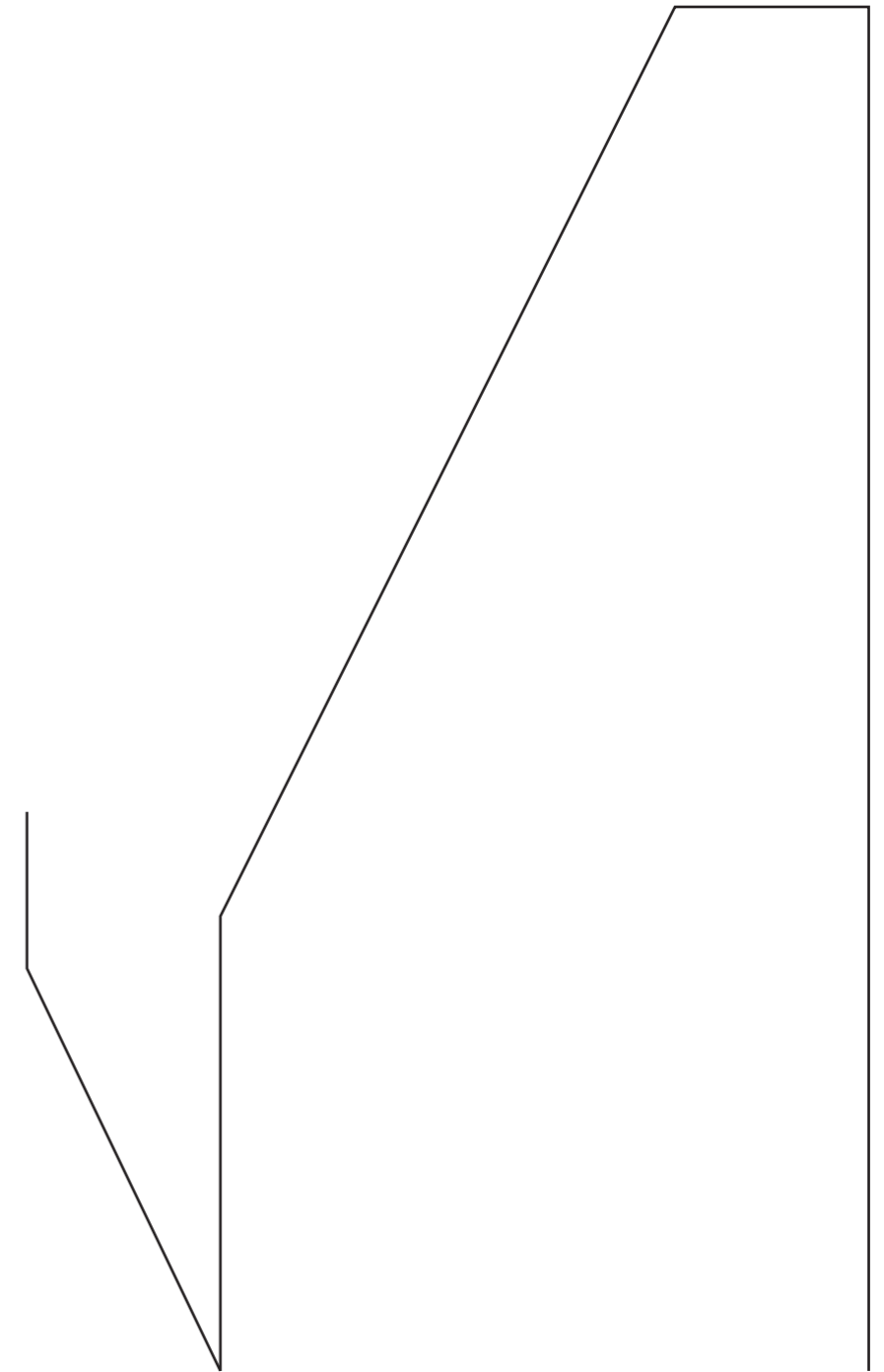
Advantage 1: .....

.....

Advantage 2: .....

.....

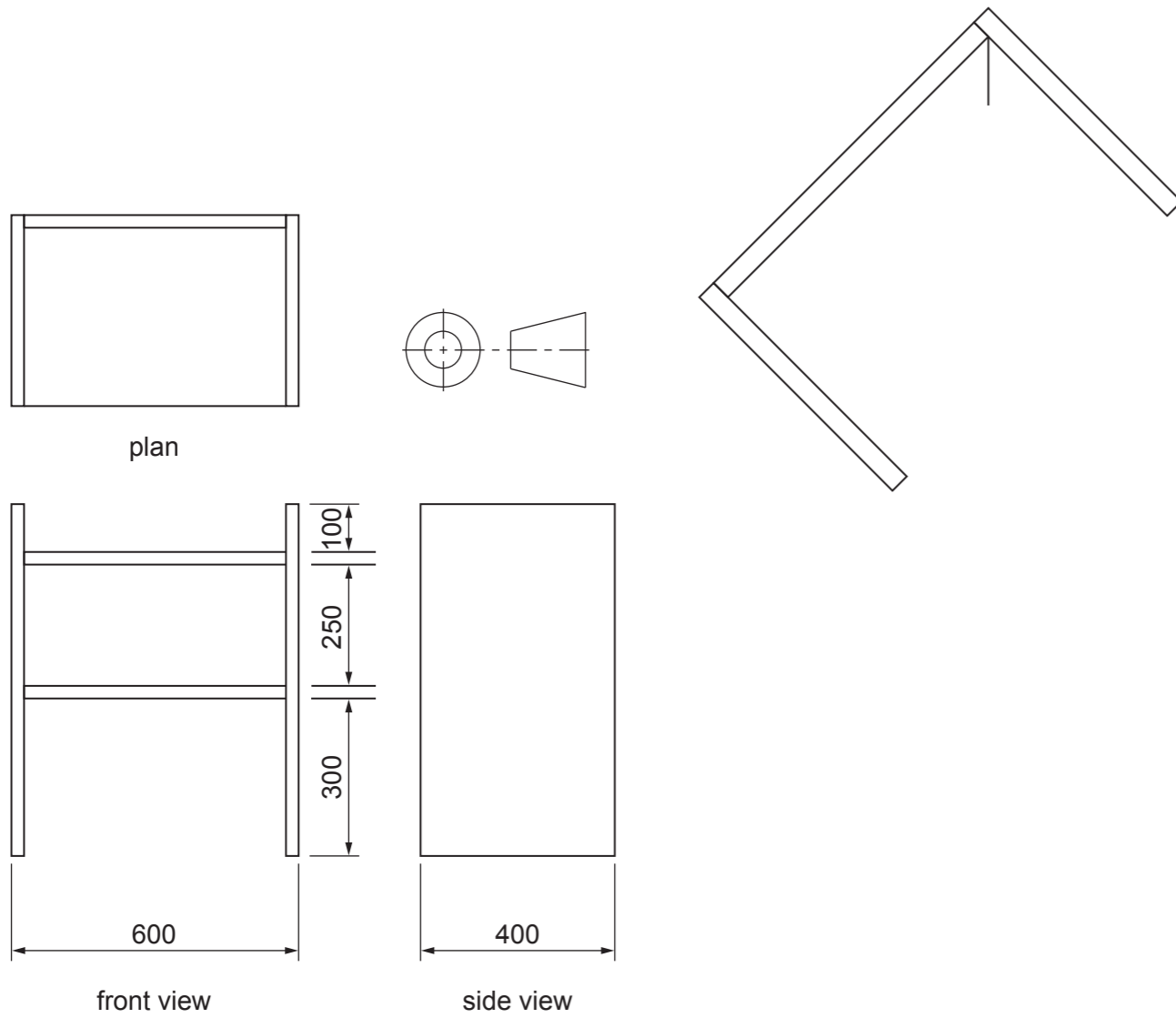
[2]



**Section B**  
Answer either Question B4 or B5.

**B4** Orthographic views of a printer table are shown below.

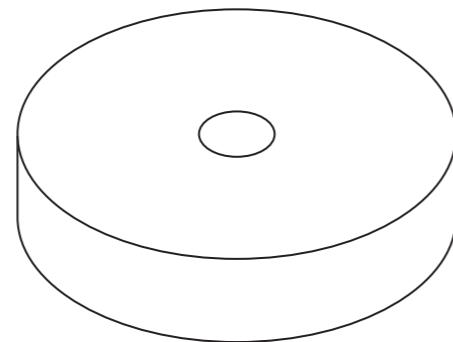
The table is made from 30 mm thick chipboard.



(a) Complete the planometric view of the printer table to a scale of 1:10. [8]

planometric view

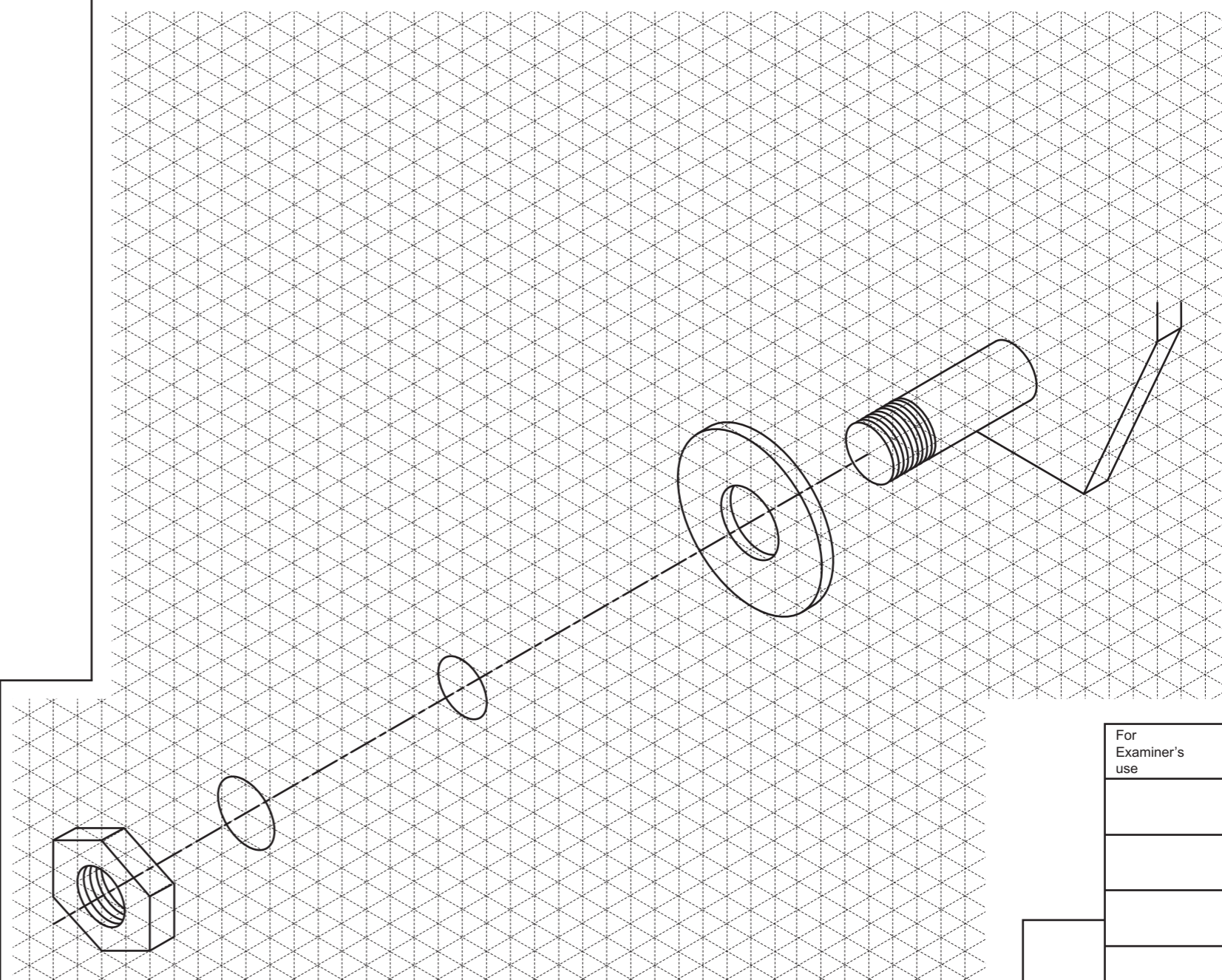
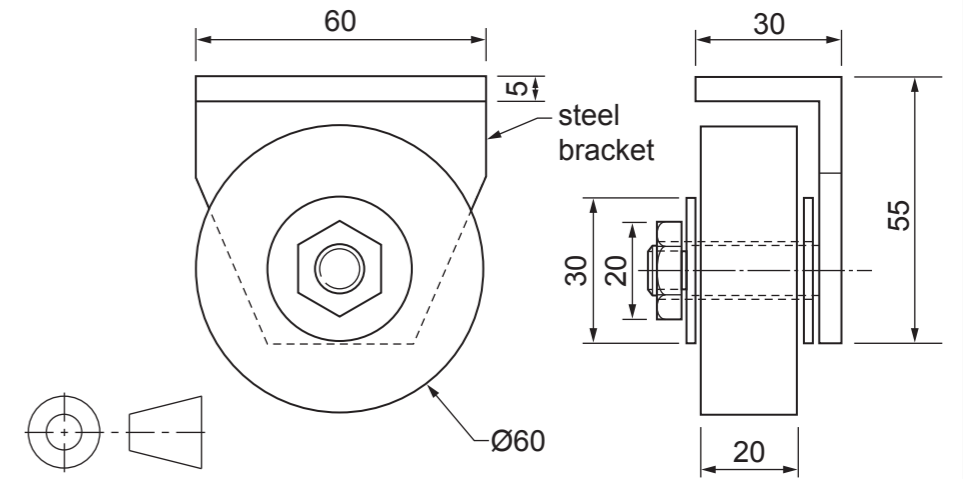
(c) The wheel from the assembly is shown on the right. Add shading to the wheel to make it appear 3-dimensional (3D). [2]



(b) Wheels are to be fitted to the base of the printer table. One of the wheel assemblies is shown to the right.

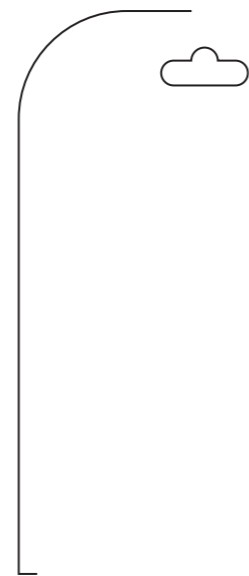
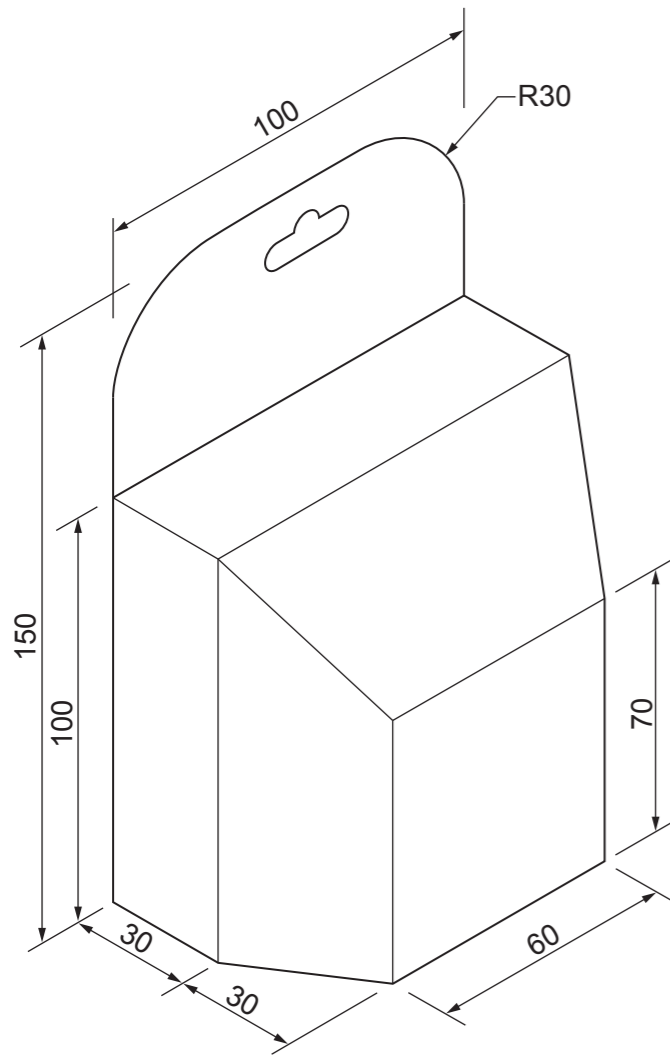
Complete the full-size exploded view of the wheel assembly below by:

- (i) completing the metal bracket [5]
- (ii) adding the plastic wheel [5]
- (iii) adding the missing washer. [5]



For Examiner's use

**B5** A package for a printer cartridge is shown below.



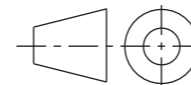
front view



side view



plan view



(a) In the space provided, complete the half-size orthographic views of the printer cartridge package. [13]

(c) The symbols to the right are to be printed onto the printer cartridge package.

(i) State the meaning of the two symbols.

Symbol A .....

Symbol B ..... [2]

The images of the symbols are drawn using a CAD program on a computer.

(ii) Explain **one** advantage of using a computer to produce the images compared to drawing them by hand.

.....

..... [2]



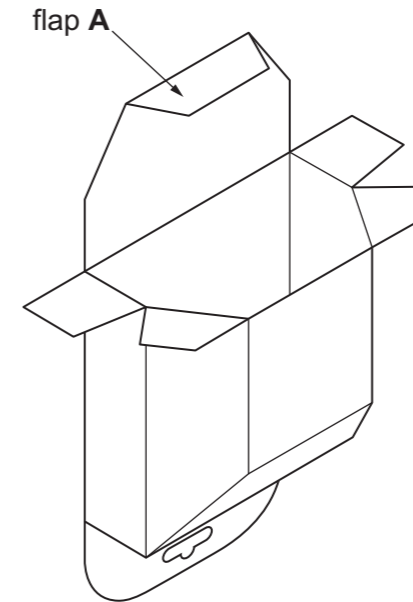
Symbol A



Symbol B

(b) The printer cartridge package is opened from the bottom as shown below. Whilst on display some packages have come open by accident.

In the space below, use sketches and notes to show a **modification** to flap A of the package that will lock the flap in place and prevent it from opening accidentally. [4]



(d) A prototype of the printer cartridge package is to be made **by hand** from thin card.

Complete the table below by naming **one** tool or item of equipment for each stage of the making process.

Making process	Tool or item of equipment
Drawing out the net onto the card	.....
Cutting out the net	.....
Scoring along the fold lines	.....
Assembling the net into the package shape	.....

[4]