### Built Environment and Construction

The owner of a building used for student accommodation wishes to divide a large bedroom into two smaller bedrooms.

**A partition wall is required.**

The partition wall must:
- satisfy the requirements of the Building Regulations;
- be non-load bearing.

Follow the instructions given on the four A3 answer sheets to complete the question.

### Engineering

A secondary school wishes to encourage its students to make less litter and to take greater care when disposing of waste.

**A bin for the collection of disposable plastic water bottles is required.**

The bin must:
- include a mechanism to reduce the size of the plastic bottle for more efficient storage and transportation of bottles;
- be easy to remove the crushed bottles.

Follow the instructions given on the four A3 answer sheets to complete the question.

### Food

A catering company has been asked to provide a food stall at a music festival aimed at young adults.

The organisers are keen to promote healthy eating as per the Government guidelines.

**A hand held savoury product is required.**

The product must:
- provide a source of HBV (Higher Biological Value) protein;
- not require any packaging to reduce excess waste at the event.

Follow the instructions given on the four A3 answer sheets to complete the question.

### Graphic Products

A school is to sell pots of herbs from its Kitchen Garden shop.

**Packaging to allow customers to take home pots of herbs and promote the school’s Kitchen Garden is required.**

The packaging must:
- hold batches of 3, 6 or 9 pots;
- include a logo for The Kitchen Garden.

Follow the instructions given on the four A3 answer sheets to complete the question.
5 Manufacturing

School caretaking staff carry out a wide range of maintenance tasks in and around the school. Some tasks, such as replacing lights can be hazardous.

A product that would provide a platform for a member of the premises staff to work safely at a height of up to 1.25 metres above floor level is required.

The product must:

- be easy to transport to different parts of the school;
- be able to be erected level on uneven ground.

Follow the instructions given on the four A3 answer sheets to complete the question.

6 Resistant Materials

Many domestic kitchens have limited food storage space. Storing and easily locating food items can be a problem.

A product that can be used to store standard size cans of food (110 x Ø76) for easy location would be helpful.

The product must:

- be freestanding;
- store at least 12 cans.

Follow the instructions given on the four A3 answer sheets to complete the question.

7 Systems and Control

For people who need to take regular daily medication, it can be difficult to remember to take the medication at the correct times.

A product that can be used to store tablets and to remind the user when to take them would be helpful.

The product must:

- be suitable for use by a wide range of users;
- store at least two weeks’ medication.

Follow the instructions given on the four A3 answer sheets to complete the question.

8 Textiles

Walking in the countryside is a popular pastime.

A product that can be used to carry all the items needed for a day out walking is needed.

The product must:

- be comfortable and easy to carry;
- hold all the items needed for a day out.

Follow the instructions given on the four A3 answer sheets to complete the question.
(a) Give three justified specification points.

1. 
2. 
3. 

Instructions to candidates

ALLOCATION OF MARKS FOR PAPER F524/02

(a) specification points [6]
(b) range of developed ideas [33]
(c) final developed outcome [9]
(d) communication [6]

[Total: 54]

All dimensions are in millimetres.
Where necessary, calculators may be used.

For Examiner’s Use Only

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(b) Ideas with development

• A range of ideas [15]
• Consider manufacturing/construction detail [12]
• Evaluate ideas with reference to specification and volume production [6]

[Total: 33]
DO NOT USE THIS SIDE
Final developed outcome

Sketch a final developed outcome. Justify key design features. [9]