Answer one question only on the A3 pre-printed answer sheets provided.

1 Many hotels provide newspapers and magazines in a lounge area for guests to read.

Design a unit to store and keep tidy newspapers and magazines.

(a) List four additional points about the function of such a unit that you consider to be important. [4]

(b) Show two different methods which could be used to allow such a unit to be rotated to allow easy access from all sides. [4]

(c) Develop and sketch three ideas for the unit. [12]

(d) Evaluate your ideas and justify why you have chosen one idea to develop more fully. [8]

(e) Draw, using a method of your own choice, a full solution to the problem. Include construction details and important dimensions. [12]

(f) Suggest two suitable specific materials for your solution and give reasons for your choice. [4]

(g) Outline a method used to manufacture one part of your solution. [6]
A newspaper shop owner wishes to promote a new magazine.

Design a floor standing unit which can display one magazine and hold up to 20 magazines. The unit should be easily taken apart for storage.

(a) List four additional points about the function of such a unit that you consider to be important. [4]

(b) Use sketches and notes to show two different methods of holding a magazine open at a specific page. [4]

(c) Develop and sketch three ideas for the unit. [12]

(d) Evaluate your ideas and justify why you have chosen one idea to develop more fully. [8]

(e) Draw, using a method of your own choice, a full solution to the problem. Include construction details and important dimensions. [12]

(f) Suggest two suitable specific materials for your solution and give reasons for your choice. [4]

(g) Outline a method used to manufacture one part of your solution. [6]
3 Old newspapers can be shredded, soaked in water and then compressed into a brick shape ready to burn on a fire when they have dried out.

Design a device which will compress old shredded newspapers into a brick shape.

(a) List four additional points about the function of such a device that you consider to be important. [4]

(b) Use sketches and notes to show two methods which could be used to gain mechanical advantage. [4]

(c) Develop and sketch three ideas for the device. [12]

(d) Evaluate your ideas and justify why you have chosen one idea to develop more fully. [8]

(e) Draw, using a method of your own choice, a full solution to the problem. Include construction details and important dimensions. [12]

(f) Suggest two suitable specific materials for your solution and give reasons for your choice. [4]

(g) Outline a method used to manufacture one part of your solution. [6]