

Design & Technology
AQA A-Level

Paper and board printing processes

Materials required for questions

- Pencil
- Rubber
- Calculator

Instructions

- Use black ink or ball-point pen
- Try answer all questions
- Use the space provided to answer questions
- Calculators can be used if necessary
- For the multiple choice questions, circle your answer

Advice

- Marks for each question are in brackets
- Read each question fully
- Try to answer every question
- Don't spend too much time on one question

Good luck!

Q1. What are the four colours used in offset lithography printing?

- A** Cyan, red, yellow and black
- B** Cyan, magenta, yellow and black
- C** Blue, magenta, yellow and black

Q2. When printing commercially, what is a registration mark used for?

- A** To check alignment of paper during print process
- B** To show where to cut paper after print
- C** To indicate that a registered trademark logo has been used

Q3. Which of the following is most suitable for batch process?

- A** Offset lithography
- B** Flexography
- C** Screen printing

Q4. Offset lithography is a process used in which scale of production?

- A** Mass production
- B** Continuous production
- C** Batch production

Q5. Evaluate the suitability of producing vehicle signage using a digital printed image **(4 marks)**

Q6. Explain the screen printing process. Include both notes and sketches in your answer **(5 marks)**

Q7. Explain two advantages of flexographic printing **(2 marks)**

Answers

Q1. B

Q2. A

Q3. C

Q4. A

Q5.

Digital printed image

- Full colour digital images or photographs can be printed on to a substrate before application allowing for corporate logos and pictures to be featured.
- Large format prints can be created and scaled for a variety of sized vehicles.
- One large self-adhesive feature is easier to apply and ensure that it is square and in line with the vehicle panel.
- Digital printing requires costly machinery which can make the process prohibitive for smaller companies.
- Digital printing has limited UV resistance so may fade quickly and lose its visual impact.

Q6.

An outline covering five of the following:

- Material to be printed placed on base (1)
- Template made from card with required design placed on top of material (1)
- Screen placed on top of template, made from stretch nylon fabric and wood frame (1)
- Ink squeezed onto nylon fabric (1)
- Rubber blade spreads ink out and push through fabric and template onto material (1)
- Printed pattern can now be seen on material (1)

Q7.

Any two from:

- Economic on long print runs (1)
- Fast (1)
- Low maintenance cost, low breakdown rate (1)
- Can be combined with web-fed systems which is much cheaper and faster than sheet fed (1)

- Fast drying inks (1)