

**Design & Technology**  
**AQA A-Level**

# **Paper and board printing processes**

## **Materials required for questions**

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- Pencil
- Rubber
- Calculator

## **Instructions**

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- 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**

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- 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)**

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

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

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## 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)