

Year 13 January Mocks Exam Revision List

Paper 1 = 2 hours and 30 mins (Technical Principles)

For this paper you must have:

- normal writing and drawing instruments
- a scientific calculator
- a protractor

3.1 Technical principles		Sample B Paper 1
3.1.1	Materials and their applications	Q2, Q5, Q7, Q9, Q13, (Q8)
3.1.2	Performance characteristics of materials	Q3, Q5, Q7, Q9, Q13 (Q4, Q8)
3.1.3	Enhancement of materials	Q7, Q11 (Q13)
3.1.4	Forming, redistribution & addition processes	Q1, Q6, Q7, Q9, Q12, Q13
3.1.5	The use of finishes	Q4, Q8, Q13 (Q7, Q9)
3.1.6	Modern industrial and commercial practice	
3.1.7	Digital design and manufacture	(Q13)
3.1.8	The requirements for product design and development	
3.1.9	Health and safety	Q10
3.1.10	Protecting designs and intellectual property	Q14
3.1.11	Design for manufacturing, maintenance, repair and disposal	(Q13)
3.1.12	Feasibility studies	
3.1.13	Enterprise and marketing in the development of products	
3.1.14	Design communication	Q6, Q8, Q12
3.1.15	Modern manufacturing systems	

- Adhesives
- Metals
- Timbers – Stock Forms
- Biodegradable Polymers
- Manufacturing processes – Metals
- Safety to consumers
- Tests used on materials – Physical properties (metals)
- Manufacturing processes surrounding polymers (E.g. Blow moulding)
- Fabrication, addition and finishing process
- Production methods and scales
- Protecting designs and companies
- General maths

Paper 2 = 1 hour and 30 minutes (Designing & making principles)

For this paper you must have:

- normal writing and drawing instruments
- a scientific calculator

3.2 Designing and making principles

			Sample B Paper 2
3.2.1	Design methods and processes		Q9, (Q6)
3.2.2	Design theory		
3.2.3	How technology and cultural changes can impact on the work of designers		Q1, Q2, Q5, Q11 (Q6)
3.2.4	Design processes		(Q6)
3.2.5	Critical analysis and evaluation		Q1, (Q6)
3.2.6	Selecting appropriate tools, equipment and processes		Q1
3.2.7	Accuracy in design and manufacture		
3.2.8	Responsible design		Q4, Q8 (Q1, Q3)
3.2.9	Design for manufacture and project management		Q6, Q7
3.2.10	National and international standards in product design		Q3, Q4

- Developments of products to meet user needs
- Comparing and contrasting products
- Product Packaging
- CAD/CAM
- Testing methods and their uses
- National and international standards used for quality, safety and disposal
- Project management terms
- Responsible design
- Design process
- Socio economic changes – impact on design
- General maths