OCR
Oxford Cambridge and RSA

GCSE

Design and Technology: Textiles Technology

Unit **A575**: Sustainability and technical aspects of designing and making

General Certificate of Secondary Education

Mark Scheme for June 2015

OCR (Oxford Cambridge and RSA) is a leading UK awarding body, providing a wide range of qualifications to meet the needs of candidates of all ages and abilities. OCR qualifications include AS/A Levels, Diplomas, GCSEs, Cambridge Nationals, Cambridge Technicals, Functional Skills, Key Skills, Entry Level qualifications, NVQs and vocational qualifications in areas such as IT, business, languages, teaching/training, administration and secretarial skills.

It is also responsible for developing new specifications to meet national requirements and the needs of students and teachers. OCR is a not-for-profit organisation; any surplus made is invested back into the establishment to help towards the development of qualifications and support, which keep pace with the changing needs of today's society.

This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by examiners. It does not indicate the details of the discussions which took place at an examiners' meeting before marking commenced.

All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

OCR will not enter into any discussion or correspondence in connection with this mark scheme.

These are the annotations, (including abbreviations), including those used in scoris, which are used when marking

Annotation	Meaning
BP	**Blank Page – this annotation must be used on all blank pages within an answer booklet (structured or unstructured) and on each page of an additional object where there is no candidate response.**
L1	Level 1
L2	Level 2
L3	Level 3
SEEN	Noted but no credit given
✔	Tick

Question			Answer/Indicative content	Mark	Guidance
1			C: Factory poor working conditions	1	
2			C: Natural	1	
3			A: Worldwide	1	
4			B: People & their measurements	1	
5			D: Making a different product	1	
6			Corrosive	1	
7			Refuse	1	
8			Product disassembly/ disassembly	1	
9			Planned obsolescence/ built in /obsolescence	1	
10			Coal/ oil /gas/fossil fuels	1	
11			False	1	
12			True	1	
13			True	1	
14			True	1	
15			False	1	

Question			Answer/Indicative content	Mark	Guidance
16	a	i	Name **three** natural fibres • Wool/ mohair/ cashmere/ angora • Silk • Cotton • Bamboo • Hemp • Linen/ Flax /Jute • Ramie • Sisal • Coir	3	3x1
16	a	ii	**Three** advantages to environment of natural fibres: • Sustainable / no fossil fuels used • Can be regrown / renewable / will not run out • Can be produced 100% organically • No need to use chemicals / pesticides / less toxic • Comes from natural sources animals or plants • Biodegradable / rots down • Less carbon emissions / CO_2 into atmosphere / pollution / greenhouse gases / global warming • CO_2 absorbed by plants / O_2 released	3	3x1 Accept one word answers No repeats
16	b		Points to consider: • Lined / fabric inside / lining • Hood • Pockets • Sleeves / cuffs • Made longer • Attachment for gloves / gloves • Adjustable collar / drawstring / scarf / modified neckline • Safety / visibility / reflective / Use of smart materials • Waterproof / wind proof • Named fastenings all the way down the front eg. Zip, buttons	4	Maximum FOUR marks. 4x1 **Do credit sketches if no notes.** **Do not credit reference to:** • colour / decoration • techniques • named materials

Question			Answer/Indicative content	Mark	Guidance
16	c*		**Points to consider:** **Moral & cultural** • Attitudes to fashion / eco-friendly / fast fashion trends • Size- negative attitudes to the larger figure • Use of vintage / recycled clothing / minimising waste • Need for a product / lifestyle choice • Political attitudes influenced by moral ideas • Animal welfare issues: use of leather, fur • Changes in trends- music/fashion/culture • Attitudes to health / fitness/ disability /age • Leisure time pursuits • Economic - climate / costs / availability of resources/ credit crunch/ lifestyle changes • Fair-trade issues: working conditions, pay education community, fair price goods • Religion: symbolism of colour, inappropriate slogans, revealing clothing	6	**Full marks may be awarded for giving full details of moral or cultural or a mixture of both.** **Level 3 (5-6 marks)** Thorough explanation, showing some understanding of the way and moral and cultural issues affect the design of fashion products. There will be three or more clearly identified and explained points. Specialist terms will be used appropriately and correctly. The information will be presented in a structured format. The candidate will demonstrate the accurate use of spelling, punctuation and grammar. **Level 2 (3-4 marks)** Adequate explanation, showing some understanding of the way moral and cultural issues affect the design of fashion products. There will be some use of specialist terms, although these may not always be used appropriately. The information will be presented for the most part in a structured format. There may be occasional errors in spelling, grammar and punctuation **Level 1 (1-2 marks)** Basic explanation, showing some understanding of the way moral and cultural issues affect the design of fashion products. Can provide a description of some of the areas of possible influence. There will be little or no use of specialist terms. Answers may be ambiguous or disorganised or 'list like'. Errors of grammar, punctuation and spelling may be intrusive. **0= no response worthy of credit.**

Question			Answer/Indicative content	Mark	Guidance
16	d	i	Identify **two** reasons for packaging textile products. • Protection / not damaged or broken / safety • Keep clean / cleanliness / keep shape • Identification – security / tagging / stock control / bar code • Product information / labelling • Ease of transportation / storage / space /folded • Marketing policy / branding • Advertising / display / aesthetics	2	2x1 **Do not credit repeats**
16	d	ii	Give **two** examples of packaging materials that are harmful to the environment • Coated paper • Inks / toxic paints • Plastic: bag / covering / label / tape / coat hangers • Bubble wrap / cellophane / polythene • Polystyrene / Styrofoam	2	2x1
17	a		**Any correct four:** • Lightweight • Stain proof / moth resistant / mildew resistant • Easy to care for / machine washable / dries quickly • Crease resistant • Pill resistant / strong / durable / hardwearing • Soft / comfortable / non irritant • Good colour retention / dyes well • Warm / insulating • Stretchy / flexible	4	4x1 Marks must relate to performance characteristics not manufacturing or appearance. **Do not accept breathable, light, fire resistant, non-flammable or absorbent.**

Question			Answer/Indicative content	Mark	Guidance
17	b		**Product Research** • Identifying market / consumers / need • Investigating existing products • Inspiration / mood board / trends • Prices / materials available • Opportunities for sales / gap in the market **Product planning** • Initial ideas / designs / what it would look like • Fibres / materials to be used • Components to be used • Time planning / order of manufacture • Manufacturing details / Planning for manufacture • Costing • Prototype details / making / processes / sizes **Evaluation** **Evaluate:** • Product against specification / plan / design • Product tests • Identify improvements/ modifications • Processes used • Testing / trialling • Product questionnaire • Materials & components used • Against the needs of the user • Personal opinion of product	6	3x 2 **One** point well explained or **Two** separate points in each section of the **three** stages. **Do not credit repeats.**
17	c	i	**Pattern grading** • Scaling of pattern pieces • Different sizes / multi size patterns • Increase / decrease in size	1	
17	c	ii	**Pattern Lay**	1	

Question			Answer/Indicative content	Mark	Guidance
			• Arrangement of pieces onto fabric • Least / economical waste • Match checks / stripes / patterns • Follow specific symbols		
17	d		**Three** pieces of equipment: • Tracing wheel • Iron • Over locker	3	3x1 Only acceptable answers.
18	a		• Appealing to boys & girls –named / shown suitable colour • Decorative design – pattern, motif, logo • Easy to carry – handle / loop / attaches into another bag / clips onto a belt / long neck cord. • Measurements / dimensions of case / cover • Fabric or fibre named – eg denim, PVC, fleece, neoprene, linen, polycotton • Details of construction methods / fastenings.- eg seams, hems, finishing methods, Velcro, magnetic clip, press studs • Decorative techniques – • e.g. printing, appliqué, patchwork, embroidery, tie dye, batik, quilting,	6	**One** mark from each up to a maximum of six marks 6x1 **Do credit sketches if no notes.** Do not accept leather, plastic or rubber.
18	b		**Nanotechnology:** • Very fine fibres / tiny fibres / small fibres • Fibres finer than a strand of human hair • Molecular / atomic technology / particles • Engineered by man • V. lightweight, smooth & fine • Strong / breathable / waterproof fibres • Spun & collected in non-woven felt like sheets • Added as a base to other fibres/ thread • Self-cleaning fabrics	3	Marks to be awarded for correct identification / explanation of what Nanotechnology is. Examples of uses: • Military applications- lightweight / bullet proof • Hospital uses- spray onto body, seamless skin covering

Question			Answer/Indicative content	Mark	Guidance
			• Silver technology		
18	c*		Points relating to benefits of manufacturing in quantity: • Bulk buying materials • Bought in components • Skill of staff- workers can specialise but can find job repetitive and boring • Quality control • Lower costs- production can be relatively inexpensive • Produces cheap products • Use of automated machinery • CAD/CAM uses • Reference to mass JIT and continuous production.	6	**6x1** **Level 3 (5-6 marks)** Thorough discussion, showing clear understanding of the benefits of manufacturing in quantity. There will be three or more clearly identified and explained points. Specialist terms will be used appropriately and correctly. The information will be presented in a structured format. The candidate will demonstrate the accurate use of spelling, punctuation and grammar. **Level 2 (3-4 marks)** Adequate discussion, showing understanding of the benefits of manufacturing in quantity. There will be some use of specialist terms, although these may not always be used appropriately. The information will be presented for the most part in a structured format. There may be occasional errors in spelling, grammar and punctuation **Level 1 (1-2 marks)** Basic discussion, showing some understanding of the benefits of manufacturing in quantity. Can provide a description of some of the areas of possible influence. There will be little or no use of specialist terms. Answers may be ambiguous or disorganised or 'list like'. Errors of grammar, punctuation and spelling may be intrusive. **0= no response worthy of credit.**

Question			Answer/Indicative content	Mark	Guidance
19	a		Any correct **two**: • Darts • Pleats (box, inverted, knife) • Tucks • Elastic • Drawstring • Smocking	2	2x1 If specific pleats named and no alternative answer credit each named pleat.
19	b		Gathering fabric: • Lengthen stitch • Change machine foot • Loosen top tension • Straight stitch / on right side of fabric • Stitch on seam line, then again inside seam allowance / two rows of stitching • Pull up thread to create gathers • Do not reverse stitch / secure ends / do leave long threads • Secure round a pin / knot • 'Stroke' gathers / even out gathers	4	Any **four** in a correct working order. 4x1 **Credit diagrams and or notes.**
19	c		**Three** advantages: • Warmth • Comfort • Durability / hard wearing / strong • Keeps shape / added shape • Decorative finish / looks good / enhances appearance / aesthetically pleasing / unique	3	3x1 **Do not accept thicker or more weight.**
19	d		• Cut fabric to size • Switch on machine / check machine is working / thread machine • Change / remove foot / presser foot / walking foot / quilting foot / attach flat quilting bed to machine / • Check / choose stitch setting / increase stitch length	6	**Six** marks any correct six: Marks can be awarded for sketches or notes. Marks can be awarded for any correct stages identified.

Question			Answer/Indicative content	Mark	Guidance
			• Three layers: top fabric / wadding / base fabric • Pin / tack layers together • Outline the design- tailors chalk / pencil • Sew/ stitch together / lower feed teeth for free machine quilting • Tie of loose threads / reverse stitch • Trim / cut to size / neaten / add binding / overlock edges		

OCR (Oxford Cambridge and RSA Examinations)
1 Hills Road
Cambridge
CB1 2EU

OCR Customer Contact Centre

Education and Learning
Telephone: 01223 553998
Facsimile: 01223 552627
Email: general.qualifications@ocr.org.uk

www.ocr.org.uk

For staff training purposes and as part of our quality assurance programme your call may be recorded or monitored