

GCE

Design and Technology

H405/02: Problem solving in fashion and textiles

A Level

Mark Scheme for June 2022

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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.

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MARKING INSTRUCTIONS**PREPARATION FOR MARKING
RM ASSESSOR**

1. Make sure that you have accessed and completed the relevant training packages for on-screen marking: *RM Assessor Online Training*; *OCR Essential Guide to Marking*.
2. Make sure that you have read and understood the mark scheme and the question paper for this unit. These are posted on the RM Cambridge Assessment Support Portal <http://www.rm.com/support/ca>
3. Log-in to RM Assessor and mark the **required number** of practice responses (“scripts”) and the **number of required** standardisation responses.

YOU MUST MARK 10 PRACTICE AND 10 STANDARDISATION RESPONSES BEFORE YOU CAN BE APPROVED TO MARK LIVE SCRIPTS.

MARKING

1. Mark strictly to the mark scheme.
2. Marks awarded must relate directly to the marking criteria.
3. The schedule of dates is very important. It is essential that you meet the RM Assessor 50% and 100% (traditional 40% Batch 1 and 100% Batch 2) deadlines. If you experience problems, you must contact your Team Leader (Supervisor) without delay.
4. If you are in any doubt about applying the mark scheme, consult your Team Leader by telephone or the RM Assessor messaging system, or by email.
5. **Crossed Out Responses**
Where a candidate has crossed out a response and provided a clear alternative then the crossed out response is not marked. Where no alternative response has been provided, examiners may give candidates the benefit of the doubt and mark the crossed out response where legible.

Rubric Error Responses – Optional Questions

Where candidates have a choice of question across a whole paper or a whole section and have provided more answers than required, then all responses are marked and the highest mark allowable within the rubric is given. Enter a mark for each question answered into RM assessor, which will select the highest mark from those awarded. *(The underlying assumption is that the candidate has penalised themselves by attempting more questions than necessary in the time allowed.)*

Multiple Choice Question Responses

When a multiple choice question has only a single, correct response and a candidate provides two responses (even if one of these responses is correct), then no mark should be awarded (as it is not possible to determine which was the first response selected by the candidate).

Contradictory Responses

When a candidate provides contradictory responses, then no mark should be awarded, even if one of the answers is correct.

Short Answer Questions (requiring only a list by way of a response, usually worth only **one mark per response**)

Where candidates are required to provide a set number of short answer responses then only the set number of responses should be marked. The response space should be marked from left to right on each line and then line by line until the required number of responses have been considered. The remaining responses should not then be marked. Examiners will have to apply judgement as to whether a 'second response' on a line is a development of the 'first response', rather than a separate, discrete response. *(The underlying assumption is that the candidate is attempting to hedge their bets and therefore getting undue benefit rather than engaging with the question and giving the most relevant/correct responses.)*

Short Answer Questions (requiring a more developed response, worth **two or more marks**)

If the candidates are required to provide a description of, say, three items or factors and four items or factors are provided, then mark on a similar basis – that is downwards (as it is unlikely in this situation that a candidate will provide more than one response in each section of the response space.)

Longer Answer Questions (requiring a developed response)
















Where candidates have provided two (or more) responses to a medium or high tariff question which only required a single (developed) response and not crossed out the first response, then only the first response should be marked. Examiners will need to apply professional judgement as to whether the second (or a subsequent) response is a 'new start' or simply a poorly expressed continuation of the first response.

6. Always check the pages (and additional objects if present) at the end of the response in case any answers have been continued there. If the candidate has continued an answer there then add a tick to confirm that the work has been seen.

7. Award No Response (NR) if:
- there is nothing written in the answer space.
- Award Zero '0' if:
- anything is written in the answer space and is not worthy of credit (this includes text and symbols).
- Team Leaders must confirm the correct use of the NR button with their markers before live marking commences and should check this when reviewing scripts.
8. The RM Assessor **comments box** is used by your team leader to explain the marking of the practice responses. Please refer to these comments when checking your practice responses. **Do not use the comments box for any other reason.** If you have any questions or comments for your team leader, use the phone, the RM Assessor messaging system, or e-mail.
9. *Assistant Examiners will send a brief report on the performance of candidates to their Team Leader (Supervisor) via email by the end of the marking period. The report should contain notes on particular strengths displayed as well as common errors or weaknesses. Constructive criticism of the question paper/mark scheme is also appreciated.*
10. For answers marked by levels of response:
- To determine the level** – start at the highest level and work down until you reach the level that matches the answer
 - To determine the mark within the level**, consider the following:

| Descriptor | Award mark |
|---|---|
| On the borderline of this level and the one below | At bottom of level |
| Just enough achievement on balance for this level | Above bottom and either below middle or at middle of level (depending on number of marks available) |
| Meets the criteria but with some slight inconsistency | Above middle and either below top of level or at middle of level (depending on number of marks available) |
| Consistently meets the criteria for this level | At top of level |

11. Annotations

| Annotation | Meaning |
|---|---|
|  | 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. |
|  | Tick |
|  | Cross |
|  | Confused (replaces the question mark) |
|  | Benefit of doubt |
|  | AO1 – Knowledge and understanding |
|  | AO2 – Apply knowledge and understanding |
|  | AO3 - Analyse |
|  | AO4 - Evaluation |
|  | Omission |
|  | Not answered question |
|  | Noted but no credit given |
|  | Too vague |
|  | Own figure rule |
|  | Repetition |

12. Subject Specific Marking Instructions

INTRODUCTION

Your first task as an Examiner is to become thoroughly familiar with the material on which the examination depends. This material includes:

- the specification, especially the assessment objectives
- the question paper
- the mark scheme.

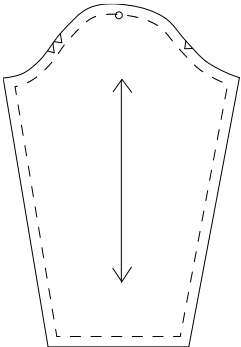
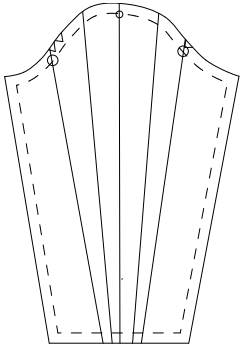
You should ensure that you have copies of these materials.

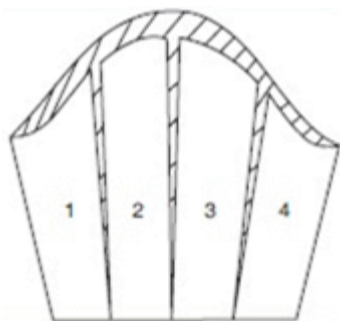
You should ensure also that you are familiar with the administrative procedures related to the marking process. These are set out in the OCR booklet Instructions for Examiners. If you are examining for the first time, please read carefully Appendix 5 Introduction to Script Marking: Notes for New Examiners.

Please ask for help or guidance whenever you need it. Your first point of contact is your Team Leader.

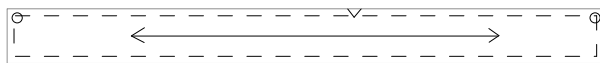
| Question | | | Answer | Mark | Guidance | |
|----------|--|--|---|------|---|--|
| | | | | | Content | Levels of response |
| 1* | | | <p>Indicative Content:</p> <p><u>Comfort:</u></p> <ul style="list-style-type: none"> Size needs to be considered as too big and they move/ twist when sleeping. Too tight will restrict. Waist not restrictive by having elastic or drawstring. Buttons must be flat or covered, Seam finishing must be flat and smooth, Labels should not aggravate the skin, Seams and components lie flat for comfort. Won't twist or pull when moving around in bed. <p><u>Fabric:</u></p> <ul style="list-style-type: none"> Fabric should keep you cool in summer and warm in winter, It should be breathable, Soft against the skin, Could be woven or knitted. Knitted fabric will stretch with the body but is more likely to lose shape, Less likely to crease, Natural fibres are best for sleepwear as they are breathable; cotton is lightweight but not ideal for winter unless it is brushed cotton flannel. Silk keeps temperature regulated in both warm and cool climates. Silk is also smooth against the skin. Linen is very durable and breathable; particularly good in hot weather but it creases. Hypoallergenic for allergy sufferers; for example, bamboo which is also absorbent, Drapes well to suit the style of the pyjamas and current trends <p><u>Fit:</u></p> <ul style="list-style-type: none"> Should be adjustable or able to move depending on body shape. Not too tight as can restrict circulation, <p><u>Style:</u></p> <ul style="list-style-type: none"> Pyjamas shown are a classic style and likely to appeal to a wide age range. Pyjamas can remain the same classic style but fabric choice and pattern can reflect different styles and trends. <p><u>Usability:</u></p> | 12 | <p>All responses should be in relation to the existing product information provided in the RB.</p> <p>Candidates may extract information from the Resource Booklet. Any such lifted information can be used in support of the explanation but no marks should be awarded simply for duplicating text.</p> <p>There is no analysis or evaluation in Level 1.</p> | <p>Level 4 [10-12 marks] A comprehensive examination of how the popular unisex pyjama design could meet user requirements when purchasing nightwear for optimum sleep. Information in RB is used effectively to fully exemplify the points being made in relation to a range of user requirements. Well-constructed response in relation to question with a clear and developed narrative. <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i></p> <p>Level 3 [7-9 marks] A good examination of how the popular unisex pyjama design could meet user requirements when purchasing nightwear for optimum sleep. Information in RB is used for the most part effectively to exemplify points being made in relation to user requirements although one or two opportunities are missed. Well-constructed response in relation to question although one or two opportunities not taken to develop narrative. <i>There is a line of reasoning presented with some structure. The information presented is in the most part relevant and supported by some evidence.</i></p> <p>Level 2 [4-6 marks] A sufficient examination of how the popular unisex pyjama</p> |

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| | | <ul style="list-style-type: none"> How often are they to be used; the classic top can be worn as daywear, The bottoms can be mixed and matched with T Shirt style tops, Quality affects usability, Will they be suitable all year round or seasonal. <p>Care:</p> <ul style="list-style-type: none"> Pyjamas will need regular washing for hygiene, Fabric will dictate the ease of washing, Silk fabrics tend to require dry cleaning which isn't practical for regular wear, Fabrics should be washed at lower temperature for environmental considerations, Consideration into fabrics that easily crease and will require a lot of ironing, Details like buttons can come lose after frequent wear and would need replacing, Tie waist stitched in place or have feature to prevent unthreading and getting lost. <p>Award credit for any other valid suggestion.</p> | | <p>design could meet user requirements when purchasing nightwear for optimum sleep. Information in RB is used to exemplify some points being made in relation to user requirements although much more could have been done to exploit the stimulus material available. Reasonable response in relation to the question although narrative at times lacks depth and cohesion.</p> <p><i>The information has some relevance and is presented with limited structure. The information is supported by limited evidence.</i></p> <p>Level 1 [1-3 marks]</p> <p>A limited examination of how the popular unisex pyjama could meet user requirements for optimum sleep. Use of information from the RB is used in a simplistic way and adds limited value to the points being made. Limited response in relation to question. Narrative is basic and unstructured.</p> <p><i>The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.</i></p> <p>0 marks = No response or no response worthy of credit.</p> |
|--|--|---|--|---|

| | | | | | Content | Levels of response |
|---|--|--|--|----|--|---|
| 2 | | | <p>Indicative content:</p> <p><u>Pattern development:</u></p> <ol style="list-style-type: none"> 1. The original sleeve pattern would look like this. 2. The sleeve head would be marked to where the gathers should be between.  <ol style="list-style-type: none"> 3. Straight lines are drawn from the sleeve head to the wrist; more lines mean more even gathers.  <ol style="list-style-type: none"> 4. The lines are then cut to nearly the wrist. 5. Pattern paper is placed under the cut pattern and the cuts are spread. The distance between all spread will amount to the gathers in the new sleeve head. This is called slash and spread. | 16 | <p>The question assesses applied knowledge and technical principles to the existing design.</p> <p>There may be variations to the process as indicated but to get into L3 candidates must show a clear understanding of the end to end process.</p> <p>Candidates can draw on practical experience to support responses.</p> <p>Candidates are expected to demonstrate understanding of the processes through annotated sketches and/or notes.</p> | <p>Level 4 [13-16 marks] A comprehensive demonstration of how to modify the original sleeve pattern to reflect the proposed new design. Comprehensive understanding of the two elements specified in question. Information in RB is used effectively to fully exemplify the points being made. Sketches will be clear and supported with relevant notes. The methods will be technically accurate and clear in the way they are explained. Responses to both bullet points are required to be in the top band of marks.</p> <p>Level 3 [9-12 marks] A good demonstration of how to modify the original sleeve pattern to reflect the proposed new design. Good understanding of the two elements specified in question. Information in RB is used for the most part effectively to exemplify points being made although one or two opportunities are missed. Sketches will for the most part be clear and supported with relevant notes. The methods will be technically accurate and for the most part be clear in the way they are explained.</p> <p>Level 2 [5-8 marks] A sufficient demonstration of how to modify the original sleeve pattern to reflect the proposed new design. Sufficient understanding of at least one element as specified in question.</p> |



6. The new sleeve is traced around and pattern markings are transferred to include the position dots so the machinist knows where to gather and notches to align the sleeve to the armhole correctly.
7. The frill pattern to add around the cuff would look like this:



8. The cuff pattern would look like this:



Manufacturing:

1. Cutting out the fabric,
2. Pattern markings transferred onto fabric,
3. Under arm seam sewn 1.5cm.
4. Edges overlocked.
5. Machine is set to the longest straight stitch,
6. 2 lines of parallel stitching are done between the gather position dots at the sleeve head; no reversing at beginning and end.
7. The 2 lines of stitching are pulled to create the gathers to the required measurement to fit the sleeve armhole.




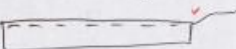
Information in RB is used to exemplify some points being made although much more could have been done to exploit the stimulus material available. Sketches will be adequate and supported with notes. The methods will not always be technically accurate with some knowledge gaps evident.








Level 1 [1-4 marks]

A **limited** demonstration of how to modify the original sleeve pattern to reflect the new proposed new design. Limited knowledge and next to no understanding of the elements specified in question. Use of information from the RB is used in a simplistic way and adds limited value to the points being made. Sketches if used will be unclear with only basic notes to accompany them. The methods may lack technical detail and be basic in nature.

0 marks = No response or no response worthy of credit.

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| | | | <p>8. The gathers are evenly distributed and then stitched in between the 2 parallel lines to secure the gathers before inserting into the armhole.</p> <p>Cuff frill and cuff:</p> <ol style="list-style-type: none"> 1. The 2 short ends of the frill are stitched 1.5cm and right sides together. 2. Edges overlocked and then pressed. 3. One long edge is overlocked to finish the edge. 4. This edge is turned under to create the hem and machine straight stitched. 5. The other long edge is gathered using the same technique as the sleeve head but to fit the length of the cuff. 6. Interfacing is ironed onto one half of the wrong side of the cuff. 7. The 2 short ends of the cuff are stitched together 1.5cm and right sides together. 8. Seam is pressed open. 9. The cuff is folded along the foldline and pressed. 10. The frill is pinned and sewn to the raw edge of the cuff, right sides together. 11. The cuff is attached to the sleeve, right sides together 1.5cm seam allowance. 12. The raw edge is overlocked. <p>Award credit for any other valid suggestion.</p> <p>L4 Exemplar:</p> | | | |
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| | | | <p>The new design shows gathered puff sleeves and a frill around the cuff.</p> <p>For the frill around the cuff it is likely that you will want to add interfacing to the design to create more structure.</p> <p>To create the frill you would get a long strip of fabric. At least At least 2x as long as the circumference of the collar.</p>  <p>You then would stitch a line of running stitch along the top using a regular sewing machine foot with the longest stitch length possible.</p>  <p>ensure that it is knotted at one end.</p> | | | |
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| | | | <p>You then would pull the bit of thread at the end to create a ruffle.</p>  <p>Fit of Secure with a knot once you are happy with the ruffle.</p> <p>You then need to attach it by turning the sleeve and ruff both inside out, sandwiching the ruffle between these two pieces and sew on using a sewing machine.</p>  <p>ensure you have removed the piece from the bed of the sewing machine so that you can slip the sleeve on and ensure you only sew the three layers of fabric at a time.</p>  <p><u>Puff sleeves.</u></p> <p>The material would be cut with a larger curve than what will fit to the sleeve hole in the main body of the jacket, this will allow for the ruffles to be created.</p>  <p>Example of what the sleeve would pattern would look like. You can see the excess of material at the top top.</p> <p>using a running stitch and a regular foot on a sewing machine stitch round the top of the curve on the widest stitch length.</p>  <p>ensure that it is securely fastened at one end.</p> <p>Using the thread gently pull the the fabric to create the ruffles</p>  <p>secure with a knot.</p> <p>Then you would carry on to set the sleeves as you usually would, ensuring that the line of stitching is concealed on the inside seam of the shoulder.</p>  <p>Press, seams cut off any excess fabric and threads to ensure highest possible quality</p> | | | |
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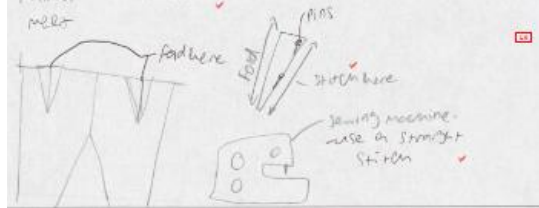
| | | | | | Content | Levels of response |
|----|--|--|--|----|--|--|
| 3* | | | <p>Indicative content: <u>Fabric properties and characteristics:</u> <u>Cotton lawn:</u></p> <ul style="list-style-type: none"> • Untextured smooth finish, • Threads are fine so drapes well for the gathers. • Suitable for summer as breathable and very lightweight. • Cotton fibres are durable and breathable. • Easy to wash making it very suitable for pyjamas. • Cotton does wrinkle easily, <p><u>Silk/Viscose Velvet:</u></p> <ul style="list-style-type: none"> • Pile fabric will look and feel luxurious and expensive in comparison to other two. • Silk keeps you cool in summer and warm in winter so the pyjamas could be worn all year • The pile fabric could attract dirt or fibres from bedding • Pile fabrics cannot be ironed easily as it flattens the pile. • Viscose has a soft silky appearance and feel. • Beautiful drape, could fit with target customer <p><u>Polyester stretch satin:</u></p> <ul style="list-style-type: none"> • Luxurious soft feel, • On trend silky appearance • Durable and hardwearing • Not breathable <p><u>Fitness for purpose:</u> <u>Cotton Lawn</u></p> <ul style="list-style-type: none"> • This is the lightest of the 3 fabrics so would make it very suitable for lightweight nightwear. • Cotton is a staple fibre so smooth finish. • Could be organic cotton which may appeal to target customer • Easier to recycle, upcycle <p><u>Silk/Viscose Velvet:</u></p> <ul style="list-style-type: none"> • Pile could flatten through continued wear which will give a crushed appearance. This may be still be attractive. • Silk fibre is durable; strongest natural fibre. • Silk fibres can stretch a lot and therefore would help to maintain the pyjamas shape, • Silk benefits from dry cleaning which would make it very impractical for pyjamas. • The fabric is heavier per metre than the other two fabrics so could make it less comfortable for pyjamas. | 12 | <p>All responses should be in relation to the existing product information provided in the RB.</p> <p>Candidates may extract information from the Resource Booklet. Any such lifted information can be used in support of the explanation but no marks should be awarded simply for duplicating text.</p> <p>There is no analysis or evaluation in Level 1.</p> <p>.</p> | <p>Level 4 [10-12 marks] A comprehensive discussion of the suitability of all three fabrics against the four reference points in the question. Information in RB is used effectively to fully exemplify the points being made. Well-constructed response in relation to question with a clear and developed narrative. <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i></p> <p>Level 3 [7-9 marks] A good discussion of the suitability of at least two fabrics against at least three reference points in the question. Information in RB is used for the most part effectively to exemplify points being made although one or two opportunities are missed. Well-constructed response in relation to question although one or two opportunities not taken to develop narrative. <i>There is a line of reasoning presented with some structure. The information presented is in the most part relevant and supported by some evidence.</i></p> <p>Level 2 [4-6 marks] A sufficient discussion of the suitability of at least two fabrics against at least two reference points in the question. Information in RB is used to exemplify some points being made although much more</p> |

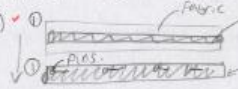

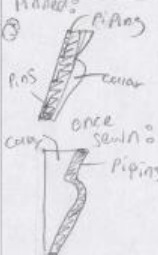
| | | | | |
|--|--|---|--|--|
| | | <p><u>Polyester stretch satin:</u></p> <ul style="list-style-type: none"> • Not as comfortable for nightwear as it is manmade, could be too hot and sticky to wear in bed • Easy to care for, could be washed and tumble dried whereas cotton lawn would risk shrinkage and silk/viscose may not be easy to care for • Least sustainable material, lots of companies now avoid this sort of fabric so it may not fit with the company image <p><u>Manufacturing constraints:</u></p> <p><u>Cotton Lawn:</u></p> <ul style="list-style-type: none"> • French seams are most suitable for sewing lawn fabric as over locker can cause it to pucker. French seams are very time consuming and would greatly increase the manufacturing costs. <p><u>Silk/Viscose Velvet:</u></p> <ul style="list-style-type: none"> • Width of the fabric is 115cm and therefore not as many pieces could be cut out as the other fabrics per metre making the pyjamas more expensive to produce. • Pile fabrics are difficult to sew with as they slip. • Pile fabrics tend to be thicker and as such the gathers could be too bulky. <p><u>Polyester stretch satin:</u></p> <ul style="list-style-type: none"> • The fabric has to be pinned together as two layers slip when sewing so it is time consuming. • Interfacing may be needed which could add bulk or cost/time • Harder to dye/print – this would add time to manufacturing and additional processes <p><u>Cost considerations:</u></p> <p><u>Cotton Lawn</u></p> <ul style="list-style-type: none"> • The width of the fabric is 150cm and therefore more pieces cut be cut than with the silk/viscose. <p><u>Silk/Viscose Velvet:</u></p> <ul style="list-style-type: none"> • The fabric is produced in France and therefore shipping costs would be lower than the other 2 fabrics, • Viscose is made from wood cellulose so is also a natural fibre. • Viscose is mixed with the silk and it is lower cost so the fabric is luxurious but lower cost than 100% silk. • Pile garments cost more to manufacture as the pile has a directional nap so there is a lot of wastage. <p><u>Polyester stretch satin:</u></p> | | <p>could have been done to exploit the stimulus material available. Reasonable response in relation to the question although narrative at times lacks depth and cohesion.</p> <p><i>The information has some relevance and is presented with limited structure. The information is supported by limited evidence.</i></p> <p>Level 1 [1-3 marks]</p> <p>A limited discussion of the suitability of fabrics. Use of information from the RB is used in a simplistic way and adds limited value to the points being made. Limited response in relation to question. Narrative is basic and unstructured.</p> <p><i>The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.</i></p> <p>0 marks = No response or no response worthy of credit.</p> |
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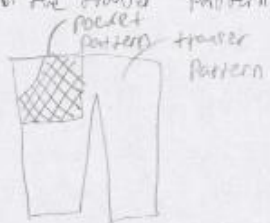
| | | | | | | |
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| | | | <ul style="list-style-type: none">• Cheaper than the silk/viscose and gives similar luxurious appearance• High transport costs, also linked to weight Award credit for any other valid suggestion. | | | |
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| | | | | | Content | Levels of response |
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| 4 | | | <p>Indicative content:</p> <p><u>Construction techniques:</u></p> <ol style="list-style-type: none"> 1. Dart sewn in the 2 trouser fronts, matching the placement dots. 2. Dart pressed towards the centre front. 3. The pocket lining would be stitched to the front pocket edges, right sides together. 4. The pocket lining is then under stitched and pressed to the inside. 5. The pocket back is placed behind the pocket lining; placement dots matching. 6. Curve edge of pocket back is stitched to curve edge of pocket lining. 7. Edge is overlocked. 8. Cut the piping so it's a bit longer than the seam you want to sew it to. Trim the seam allowances on the two seams that the piping will be sandwiched between so that they are the same width as the fabric part of the piping. 9. Pin the piping to the right side of one of the seams (ie. the side that will show on the outside of your garment), with the cord running along the stitching line and the raw edge of the piping aligned with the raw edge of the fabric. 10. Attach a piping foot or adjustable zip foot to your sewing machine and set the stitch length to 4mm. (You can use a regular zip foot if you don't have a piping or adjustable zip one.) Baste/tack the fabric part of the piping to the garment within the seam allowance. 11. Pin the seams of your garment together as normal, with the piping sandwiched between them, matching any notches. 12. Stitch the seams together, with the needle as close as you can get to the piping cord without sewing over it. 13. Inside leg of front and back legs are straight stitched together; right sides together. 14. Edges are overlocked and pressed open. 15. Outside leg seam is stitched; right sides together encasing the bottom edge of the pocket. Notches are aligned. 16. Edges are overlocked and pressed open. 17. Trouser cuff has interfacing ironed onto wrong side then short edges are sewn together to create a tube. 18. Cuff is folded in half along foldline and pressed. 19. One long edge of the cuff is ironed over 1.5cm to inside of cuff. | 16 | <p>The question assesses applied knowledge and technical principles to the existing design.</p> <p>There may be variations to the process as indicated but to get into L4 candidates must show a clear understanding of the end to end process.</p> <p>Candidates can draw on practical experience to support responses.</p> <p>Candidates are expected to demonstrate understanding of the processes through annotated sketches and/or notes.</p> | <p>Level 4 [13-16 marks] A comprehensive demonstration of how to assemble the new trousers. Comprehensive understanding of the three elements specified in question. Information in RB is used effectively to fully exemplify the points being made. Sketches will be clear and supported with relevant notes. The methods will be technically accurate and clear in the way they are explained. Responses to all bullet points are required to be in the top band of marks.</p> <p>Level 3 [9-12 marks] A good demonstration of how to assemble the new trousers. Good understanding of at least two elements specified in question. Information in RB is used for the most part effectively to exemplify points being made although one or two opportunities are missed. Sketches will for the most part be clear and supported with relevant notes. The methods will be technically accurate and for the most part be clear in the way they are explained.</p> <p>Level 2 [5-8 marks] A sufficient demonstration of how to assemble the new trousers. Sufficient understanding of at least one elements as specified in question. Information in RB is used to exemplify some points being made although much more could have been done to</p> |

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| | | <p>20. Unfolded edge of cuff is stitched to trouser hem; right side of cuff to wrong side of trouser.</p> <p>21. This seam is pressed towards the cuff and the folded edge is placed over the top.</p> <p>22. Folded edge is topstitched close to fold.</p> <p>23. Waistband has interfacing ironed to wrong side on one half.</p> <p>24. One long edge is pressed over 1.5cm towards the wrong side of waistband.</p> <p>25. The 2 short ends are sewn together 1.5cm in and right sides together.</p> <p>26. The long-unfolded edge of the waistband is pinned to the inside waistline of the trousers and machine stitched.</p> <p>27. The waistband is folded over to the right side and top stitched around the waist but keeping a gap on the back to thread the elastic in.</p> <p>28. The elastic is fed into the gap of the waistband and pinned at both side seams.</p> <p>29. The gap is topstitched and elastic is topstitched at the side seams.</p> <p><u>Tools and equipment:</u></p> <ul style="list-style-type: none"> • Flatbed sewing machine • Overlocker • Pins • Scissors • Iron <p><u>Finishing:</u></p> <ul style="list-style-type: none"> • Use of overlocker to finish all raw edges. • Iron to neaten seams during sewing and after completion. • Cutting all loose threads. • <p>Award credit for any other valid suggestion.</p> <p>L4 exemplar:</p> | | | <p>exploit the stimulus material available. Sketches will be adequate and supported with notes. The methods will not always be technically accurate with some knowledge gaps evident.</p> <p>Level 1 [1-4 marks] A limited demonstration of how to assemble the new trousers. Limited knowledge and next to no understanding of the elements specified in question. Use of information from the RB is used in a simplistic way and adds limited value to the points being made. Sketches if used will be unclear with only basic notes to accompany them. The methods may lack technical detail and be basic in nature.</p> <p>0 marks = No response or no response worthy of credit.</p> |
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| | | <p>① The front darts will require tailors chalk, pins, a ruler and a sewing machine to put in place. To start, mark out the front dart on the pattern, drawing 2 vertical lines equidistant from each other, in reference to the centre line of the trousers.</p> <p>② At the top of the vertical line place a horizontal one, the length of this will be the amount of width the dart takes in.</p> <p>③ This leaves you with a triangle which should then be pinned in half and sewn along the edge the two sides meet.</p>  | | | | |
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| | | | <p>① For the piping, fabric, fine rope, pins and a sewing machine will be required. To make the piping, simply fold rope into a rectangle of fabric, concealing it with the desired piping fabric. The rope will stiffen it and seal the edges securely. ✓</p>  <p>② Pin the top to seal the rope inside, then stitch along wire closely to where the rope meets the fabric. ✓</p>  <p>③ Once completed, pin the piping to raw edges such as the collar, cuffs and pocket edges. ✓</p> <p>Pin the piping facing down to the outside of the collar so (for example) so when it is turned and turned out it will be neatly finished - move out it follows the curve of the collar. ✓</p>  <p>④ Repeat this same principle to all other edges finished with piping, ensuring all are sewn facing the opposite way so once they are sewn and turned out they face the correct way. To finish these edges should be <u>pressed</u> or <u>heat set</u>. ✓</p> | | | |
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| | | | <p>① the diagonal pocket has feature a piped edge, as demonstrated on the page before. To sew in a diagonal pocket first create a pattern that fits with the trouser pattern</p>  <p>equipment:</p> <ul style="list-style-type: none"> - scissors - pins - sewing machine - overlocker <p>② cut twice as many pocket pieces so they are lined, along with the piping this finishes them nicely ✓</p> <p>③ before attaching pockets or constructing them overlock all raw edges to give a good finish ✓</p> | | | |
| 5 | (a) | (i) | <p>Total number of feedbacks received: 4325</p> <p>Total number of people who would pay for a presentation box: 3400</p> <p>Number of people who would not pay for presentation box:</p> $4325 - 3400 = 925 \text{ } \boxed{1}$ <p>Percentage of requests for presentation boxes to non-requests:</p> $3400 / 925 = 136 / 37 = 367.567568\% \text{ } \boxed{1}$ <p>To calculate how many more people would pay than those who wouldn't:</p> $367.567568 - 100 = 267.567568\% \text{ } \boxed{1}$ <p>Answer: 267.57% to 2 decimal places</p> <p>If not rounded award, do not penalise.</p> | 3 | <p>Award three marks as follows:</p> <p>1 mark for calculating the number of people who would not pay for the presentation box.</p> <p>1 mark for calculating percentage requests for presentation boxes to non-requests.</p> <p>1 mark for calculating the relative % of requests for the presentation box to those who would not pay. Note: candidates must deduct 100 from the answer to get the relative percentage.</p> <p>If correct answer is given without working out shown award full marks.</p> <p>Where an incorrect answer is given working out should be used to credit appropriate marks.</p> <p>*Allow error carried forward (ECF) where correct working out is shown.</p> | |

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| | (a) | (ii) | Yes: the % relative demand is more than 200% 11 | 1 | Award 1 mark for stating that the presentation box idea could be implemented with a justification. | |
| | (b) | | <p>To calculate the width to line the inside of the box:</p> $30+15+15 = 60 \text{ cms}$ 11 | 2 | <p>Award two marks as follows:</p> <p>Award 1 mark for calculating of length of inside of the box.</p> <p>Award 1 mark for calculating the total length in cm.</p> <p>If correct answer is given without working out shown award full marks.</p> <p>Where an incorrect answer is given working out should be used to credit appropriate marks.</p> | |
| | | | <p>To cover top of pyjamas and overlap by 8cm:</p> $30 + 8 = 38 \text{ cms}$ | | | |
| | | | <p>Total length required:</p> $60 + 38 = 98 \text{ cms}$ 11 | | | |
| | | | <p>OR</p> $30+15+15+30+8$ 11 = 98 cm 11 | | | |
| | | | | | Content | Levels of response |
| 6 | | | <p>Indicative content:</p> <p>Project management techniques will either come from the three listed in the RB or could come from a candidate's own understanding. Either approach must be credited accordingly.</p> <p><u>How project management techniques identified improve efficiency:</u></p> <ul style="list-style-type: none"> Scrum project management could improve efficiency through appointing one person to lead and they co-ordinate the different areas of development. This might improve efficiency as one person will be able to oversee all activity and anticipate problems and keep the whole process running. Production management techniques include: - Critical path analysis to examine and list all activities in the production of the product. In the fashion industry, the critical path is a production plan that contains a list of all of the necessary activities that are required to be done within a particular time frame. This ensures that production orders are | 8 | <p>Candidates may extract information from the Resource Booklet. Any such lifted information can be used in support of the explanation but no marks should be awarded simply for duplicating text.</p> <p>The answer should be given must focus on the use of project management techniques in support of a launch event.</p> <p>There is no analysis or evaluation in Level 1.</p> | <p>Level 4 [7-8 marks] A comprehensive critical examination of the ways in which the design team could apply project management techniques to create and prepare the design for the launch event. Analysis of techniques is consistently and appropriately aligned with improving efficiency and reducing costs. Well-constructed narrative in relation to question with clear and supported evaluative comments.</p> <p>Level 3 [5-6 marks] A good critical examination of the ways in which the design team could apply project</p> |

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| | | <p>shipped successfully within the estimated time of delivery. The intention behind following these steps is to initiate the following outcomes:</p> <ol style="list-style-type: none"> 1. Define the shortest time possible to complete the project. 2. Define the longest path of planned activities to the end of the project. 3. Define the earliest and latest that each activity can start and finish without making the project longer. 4. Define which activities are “critical” (i.e. on the longest path) and which have “total float” (i.e. can be delayed without making the project longer). Once all the data is collected the most efficient route through production is finalised. <ul style="list-style-type: none"> • Effective production depends upon the people. To make best use of available human resources and skills. To have a good balance between people and job which may lead to job satisfaction. • Use of sub-assemblies to put together separate parts of the pyjamas before finally assembling the product. This allows for the workers to be more skilled and efficient at different stages of production and less errors are made. • JIT Just in time management of resources, materials and movement of parts along production lines to reduce the time taken to make the product and increase efficiency <p><u>How project management techniques identified reduce costs.</u></p> <ul style="list-style-type: none"> • Implementation of six sigma to reduce the garment cost, wastage during production and get higher production and good quality of the garment. This should eliminate faults in the product by improving processes at the source; checking fabrics, stitching inspection, packing and distribution. This would reduce cost through ensuring the final product is more reliable and higher quality. • Lean thinking by focusing on crucial activities during whole of the production and eliminating any additional costs that do not add any value to the product. This means transforming the factory’s environment and work practices to zero waste by focussing on the product, not the process. • JIT Just in time will help to reduce costs by materials and components arriving as they are required this would reduce storage costs and wastage through no sales because of production delays. • Scrum can move ideas quickly as only key people are involved in decision making in their designated area. This might save money on development time as there can be less delays and wasted meeting time. | | <p>management techniques to create and prepare the design for the launch event. Analysis of techniques is appropriately aligned with improving efficiency and reducing costs but one or two opportunities are missed to make connections. Well-constructed narrative in relation to question although one or two opportunities missed to develop response. Evaluative comments are clear but not always supported.</p> <p>Level 2 [3-4 marks] A sufficient critical examination of the ways in which the design team could apply project management techniques to create and prepare the design for the launch event. Analysis of techniques is reasonably aligned with improving efficiency and/or reducing costs but there are significant opportunities missed to make connections. Reasonable narrative in relation to the question although response at times lacks depth and cohesion. Evaluative comments lack clarity and are unsupported.</p> <p>Level 1 [1-2 marks] A limited examination of the ways in which the design team could apply project management techniques to create and prepare the design for the launch event. No analysis of techniques resulting in only weak alignment with focus of question. Limited narrative in relation to question. Response is</p> |
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| | | | <ul style="list-style-type: none">CPA will reduce the development time through its analysis of each required stage. This should make the process more streamlined and therefore reduce cost. | | | <p>basic and unstructured with no evaluative comments.</p> <p>0 marks = No response or no response worthy of credit.</p> |
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