



**Methodist Ladies' College
ATAR course examination, Semester 2, 2020**

Question/Answer Booklet

**MATERIALS
DESIGN AND
TECHNOLOGY
ATAR Year 12
Section Three**

Student Name: _____

Teacher Name: _____

Time recommended for this section

Suggested working time for this section: ninety minutes

Materials required/recommended for this paper

To be provided by the supervisor

This Question/Answer Booklet

Please place a tick (✓)
in one of the following
boxes to indicate your
specialised context

Wood

Metal

Textiles

To be provided by the candidate

Standard items: pens (blue/black preferred), pencils
(including coloured), sharpener,
correction fluid/tape, eraser, ruler, highlighters

Special items: glue, scissors, non-programmable calculators approved for use in this
examination

Number of additional
answer booklets used
(if applicable):

Important note to candidates

No other items may be taken into the examination room. It is **your** responsibility to ensure that you do not have any unauthorised material. If you have any unauthorised material with you, hand it to the supervisor **before** reading any further

Structure of the examination

The Materials Design and Technology ATAR course examination consists of a written component and a practical (portfolio) component.

Structure of this paper

Section	Number of questions available	Number of questions to be answered	Suggested working time (minutes)	Marks available	Percentage of written examination	Your mark
Section One Short answer	4	4	20 mins	21	15%	
Section Two Extended answer	3	3	40 mins	30	25%	
Section Three Candidates to choose one of the following contexts: Wood Metal Textiles	6	6	90 mins	85	60%	
Total					100	

Instructions to candidates

1. The rules for the conduct of ATAR course examinations are detailed in the *Year 12 Information Handbook 2020*. Sitting this examination implies that you agree to abide by these rules.
2. Write your answers in this Question/Answer Booklet.
3. Answer the questions according to the following instructions.

Section Three: Answer all of the questions within your specialised field: Wood, Metal or Textiles.

4. You must be careful to confine your responses to the specific questions asked and to follow any instructions that are specific to a particular question.
5. Supplementary pages for the use of planning/continuing your answer to a question have been provided at the end of this Question/Answer booklet. If you use these pages to continue an answer, indicate at the original answer where the answer is continued i.e. give the page number.

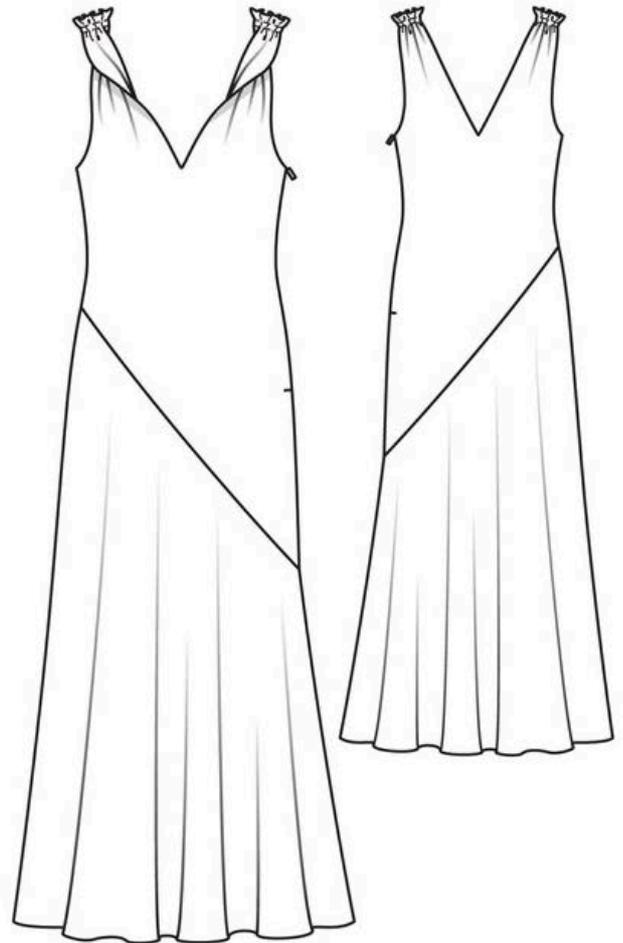
Section Three: Extended answer**60%****75 Marks****Textiles Context**

This section contains **SIX (6) questions**. Attempt **ALL** questions from this section.

Suggested working time: 90 minutes

Question 8**12 marks**

This question refers to the evening dress in **Burda pattern 12/2011#123** shown below.



- a) Name the grainline that has been used in the design of this dress and explain why this grainline has been used in this design. (2 marks)

Name of grainline: _____

See next page

Question 8 continued

Explanation:

b) (i) Name the fabric used to construct the evening dress shown in the image on the previous page.

_____ (1 mark)

(ii) Describe in detail using text and diagrams, the structure of the fabric used to construct this evening dress. (2 marks)

Diagrams:

Question 8 continued

- c) Using text and diagrams, describe in detail ONE (1) suitable hem technique that could be used to sew the hem of this evening dress. (2 marks)

Diagrams:

- d) Using text and diagrams, describe in detail ONE (1) suitable method used to sew the zipper on this evening dress. (3 marks)

See next page

Question 8 continued

Diagrams:

- e) The neckline of this evening dress requires stabilising to prevent stretching and gaping. Describe the best method/s of stabilising this neckline. (2 marks)

Question 9

12 marks

- a) In the context of the fashion and textiles industry, explain the term '**trend forecast**'. (2 marks)

See next page

Question 9 continued

- b) Suggest and explain **THREE (3) types of research** that you can undertake to identify '**trend forecasts**' in the fashion and textiles industry. (6 marks)

Research type 1:

Research type 2:

Research type 3:

Question 10**33 marks**

Refer to **BUTTERICK skirt pattern B6060 View A** below for all parts of Question 10

You have been asked to make a set of skirt samples for Summer 2021 by a local garment retailer in Perth. The retailer has asked for one sample in each size from 6 to 22, using View A from this Butterick pattern.



See next page

Question 10 continued

FABRICS: Designed for medium weight woven fabrics

*With Nap. **Without Nap. Suitable fabric types: Denim, Sateen, Poplin,

NOTIONS: A, B: 18cm zipper, seam binding, Hook & Eye. SIZE COMBINATIONS: (6-8-10-12-14), (14-16-18-20-22)

Fabric widths given in centimetres.										
SIZES	6	8	10	12	14	16	18	20	22	
View A										
115 cm*/**	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	m
152 cm*/**	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	m
View B										
115cm */**	1.5	1.5	1.5	1.9	1.9	1.9	1.9	1.9	2.0	m
150cm*/**	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	m
INTERFACING: 46, 51 cm - 0.8 m	0.3	0.3	0.3	0.4	0.5	0.6	0.6	0.6	0.6	
LINING AB: 115 cm - 0.6 m										
View C: 115,150*/**-0.7m										
LINING C: 115cm-1.30m										
View D: 115 cm*	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	m
150 cm*	0.8	0.8	0.8	0.8	0.8	1.0	1.0	1.0	1.3	m
LINING D - 115 cm – 1.5 m										

See next page

Question 10 continued

a) Using textiles specific terminology, describe the styling used in this skirt design. (2 marks)

b) What is the name given to the shaping technique used to shape the skirt to fit the waistline? (1 mark)

c) Suggest the most appropriate type of joining and finishing technique to use when sewing the front and back seams of the skirt. Justify your answer. (3 marks)

Name of joining technique: _____

Name of finishing technique: _____

Justification of techniques:

Question 10 continued

- d) Use the materials data table below. Suggest a **suitable fabric and fibre content** for the sample skirts. This fabric and fibre content would also be used for the final collection of skirts. **Justify the reason/s for your choice** of fabric and fibre for the skirts.

(5 marks)

Information about materials – fabrics and fibres			
	Fabric / fibre type	Cost per metre / unit	Care instructions
A	Gabardine 80% Cotton / 20% Polyester blend	\$16	<ul style="list-style-type: none"> • Machine washable • Line or tumble dry • Moderate steam iron • Do not bleach • Drycleanable
B	Sateen 90% Cotton / 10% Lycra blend	\$18	<ul style="list-style-type: none"> • Machine washable • Warm water • Line dry - do not tumble dry • Moderate steam iron • Do not bleach • Drycleanable
C	Lightweight Poplin 55% Cotton / 45% Polyester	\$14	<ul style="list-style-type: none"> • Machine washable • Moderate to hot steam iron • Wash in moderately warm to hot water • Line or tumble dry • Do not bleach • Do not wash with whites
D	Bemsilk lining 100% polyester	\$7	<ul style="list-style-type: none"> • Machine washable • Line or tumble dry • Do not bleach • Moderate iron • Drycleanable
E	Interfacing	\$10	<ul style="list-style-type: none"> • Machine washable • Wash in warm water • Drycleanable • Line or tumble dry on low • Medium iron
F	Zipper	\$2	
G	Thread	\$4.20	
H	Hook and eye	15 cents	

Fabric name: _____

Fibre Content: _____

See next page

Question 10 continued

Justification:

e) Use the data tables provided above to calculate the cost of the sample collection of skirts.

(7 marks)

Size	6	8	10	12	14	16	18	20	22	Quantity Required	\$ cost per Unit	Total \$ Cost
Fabric												
Lining												
Interfacing												
Thread												
Zipper												
Hook and eye												
Total \$ Cost for Collection Samples												

Total \$ Cost for Collection Samples: _____

See next page

Question 10 continued

f) Where and why will the interfacing be used in the skirt? (2 marks)

g) Suggest an ideal interfacing fabric for this purpose? (1 mark)

h) Describe the method used to finish the raw edge at the waistline of this skirt. (2 marks)

Question 10 continued

i) Use the drawing templates provided at the back of the exam paper and the space provided below to illustrate the front and back **2D working drawings** for the View A skirt. Include annotations to describe the features of the skirt. (6 marks)

Skirt front & back view

A large empty rectangular box with a thin black border, intended for the student to draw the 2D working drawings of the skirt's front and back views. The box is currently blank.

Question 10 continued

j) In the space below, **rapid concept sketch the front and back view for a suitable top to complement the View A skirt**. Annotate the sketches indicating key design features and explaining how the design of the top complements the skirt design. (4 marks)

Front and back rapid concept sketches for top

See next page

Question 11

8 marks

Many Australian based manufacturers of products such as clothing, car parts and furniture are relocating some or all of their business overseas. This is due to a number of factors, including lower labour costs and an increasingly efficient and educated overseas workforce using advanced technologies. However, working conditions and the implementation of occupational health and safety standards still remains a real challenge for some overseas countries.

Using Australian occupational health and safety guidelines to improve working conditions in these countries, develop a **TWO (2) point risk management plan** for each of the hazards identified in the table below.

Hazard	Risk management plan
Inexperienced workers	<hr/> <hr/> <hr/> <hr/> <hr/>
Dangerous substances	<hr/> <hr/> <hr/> <hr/> <hr/>
Fire hazards	<hr/> <hr/> <hr/> <hr/> <hr/>
Industrial machinery	<hr/> <hr/> <hr/> <hr/> <hr/>

See next page

Question 12

10 marks

A teenager is going to buy the following hooded top to wear at a sports event.



a) Name **ONE (1) synthetic fibre** that would be suitable for the hooded top. Give **TWO (2) reasons why the fibre is suitable**.

Synthetic fibre _____

(3 marks)

Reason 1:

Reason 2:

See next page

Question 12 continued

- b) The hooded top is made using a **knitted fabric**. Evaluate the suitability of **THREE (3) key features of knitted fabrics**. Evaluative comments must include reference to the hooded top. (3 marks)

Evaluation 1:

Evaluation 2:

Evaluation 3:

- c) Describe **TWO (2) advantages** and **TWO (2) disadvantages** of buying the hooded top online. (4 marks)

Advantage 1:

See next page

Question 12 continued

Advantage 2:

Disadvantage 1:

Disadvantage 2:

Question 13

10 marks

Global trends and movements in consumption are affected by fashion, consumer choice and marketing. These factors affect the mass production of products at the local, national and international levels. In addition, information available via media forums and social networking is increasingly playing an important part in the choices that we as consumers make when considering which products to buy.

With reference to the following points, **discuss how consumer feedback and online review forums influence** the:

- **style of products available**
- **materials used to make the products**
- **mass production of products**

See next page

