**VCE Product Design and Technology. (Timber).**

**Comprehensive work**

You are required to complete a minimum of 2 chapters per week (over 7 weeks). December 1 – January 29

You will need your VCE PDT handbook.

**Chapter 1**

**Question to answer p1 - 7**

Describe what design is and what makes a design “good”?

Describe the types of people who design, and the context within which they apply their design skills?

Describe the Characteristics of designers and their approaches to design.

Describe the methods particular designers use to create and develop their ideas.

**Chapter 2**

**Question from p8-49**

List the 4 stages of the product design process and describe what each stage consists of.

Draw a diagram or flow chart of the product design process, indicating where extra research might be requires and the steps at which be required.
How would you identify a “need”? List 5.

What is the difference between a “Constraint” and a “Consideration”?

What is an inclusive design? What else is it called?

List some type of primary research.

List some type of secondary research.

Give examples used when “Annotating” of research.

List a few ways to display research.

Pick a product and list its primary function and secondary function. List the features of the product that add up to or support the primary function.

What is a decision matrix?

What are visualisations?

What is a GANTT chart?

Why are “risk management processes” taken?

When are Quality measure taken. List.

What are presentation drawings and when are they expected in this study?

What does “weighting” the evaluation criteria mean?

Chapter 3

Question from p53-94
List three different drawing techniques that could be used to draw your product. Explain why they are used and who refers to them, (client, manufacturer/designer) and what they show.

What are “design elements” and “design principles”? What would you be looking for in each category?

What is a “Moodboard”? What type of information would you include?

Chapter 4

Question from p98-124

What are “Product Design Factors”?

What is a “Human-Centred design? Give 7 examples.

Choose an item that you own and write a sentence or two to explain how each design factor that may have been considered by the designer or manufacturer.

Draw a picture of your bed and write down its primary function. Annotate your drawing to explain all secondary functions that make this bed suitable,(or Not) for you.

Briefly describe the following: Ergonomics, Visual/ Aesthetics /Tactile, Sustainability, Environmental, Economics, Legal, Australian Standards, Occupational Health and Safety

Research the supply chain of a product you like. How far along the chain did you get?
Chapter 5

Question from p96 – 156

What are the critical issues related to sustainability in social, ethical and environmental terms?

Outline the impact of a product at every stage of the product’s life cycle.

Describe what LCA is and when it is appropriately performed.

Give examples of a wide range of sustainable design concepts and movements.

Chapter 6

Question from p158 -172

Describe how and why materials are classified?

List the characteristics and properties necessary for the material in the following products: Camping tent. Bicycle helmet. School desk.

Why is it important to test material?

Chapter 7

Question from p174 – 217

Describe the health and safety issues related to wood.

Describe the environmental issues associated with logging and forests.

List 3 common timber joints.
Name 2 hand tools and describe their uses.

Name 2 machines and describe their uses.

**Chapter 8**  Read ONLY.

**Chapter 9**

**Question from p246-262**

What are the “product design factors” List and explain 8 types.

What is meant by “unsustainable product?”

What is meant by “intellectual property?”

**Chapter 10**

**Question from p266 -293**

Collaborative design. (Read ONLY)

**Chapter 11**

**Question from p296 -326**

What is meant by Styles and Fashion?
List down 5 periods of style and fashion.

**Chapter 12**

**Question from p329 – 363**

Describe the role / responsibility of:

(a) the designer  
(b) the client  
(c) end user

Explain the relationship of the designer and the client / end-user during the design process.

What is meant by “establishing a need and requirement?”

How is Market research defined?

What are the steps for initial research for determining product features?

What is included in a design brief?

List down 2 Primary sources and 1 secondary source for research

What is research and development?

List down at least 5 types of R&D and explain.

Describe a few types of new and emerging technologies

What is a “standard”?

What is Quality management?

Describe the 5 stages of the product development process.

What does Obsolescence mean?

Describe the types of obsolescence.
What is Occupational Health and Safety?
Describe the scales of manufacturing.

**Chapter 13**

**Question from p366-375**

How do we choose products in life?
What are some of the defining features we look for? List and describe 8 types.

**Design Section**

This section is worth 1/3 of your over exam score. IT IS VERY IMPORTANT!!!!!!!!

Complete this design process and remember to include information in the following areas:

It MUST also relate to the design brief!!!!!!!

**THE NEED:**

An educational company that deals with overseas exchange students and their parents requires a multi sided, display board for their upcoming conference in September. The board must include areas for digital interactive screens, a variety of displays as well as compartments for storing information booklets and brochures.
It needs to represent an international modern theme, be mobile and easy to transport.

1. Function of product
2. Theme and aesthetics
3. Innovation and creativity
4. (2) practical processes used to make this product.
5. Tools and Equipment needed
6. Finishes
7. Materials
8. Specifications.
9. End user information and how it’s suitability
10. Other requirements

Use grey lead pencils, Coloured pencils/markers to assist in showing finishes, grain direction and other details needed to depict your idea and design.

REMEMBER! During the Exam:

Use your time well.
Don’t spend too much time on one area/question.
Go back if you have time.
Include as much info as you can, even if you think you may not need it.
Look at question scores and answer more than you need. For example 3 marks = more than 3 point answers.
Elaborate your answers
Annotate with words and diagrams where you can.

The time you give will be the best spent especially if you make the effort.

You can do it!!!!!