

PRIFYSGOL CYMRU

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UNIVERSITY OF WALES

Trinity Saint David

Examination Answer Book

24 Pages

Instructions to candidates

1. Please give the information requested in the boxes below.
2. Enter your name in the space provided to the right and seal to hide your name.
3. The answers must be **legibly** written. The Examiners can either ignore illegible script or have it typed and the expense of typing charged to the candidate.
4. Write your answers in ink.
5. Begin each answer on a fresh page. Do all rough work in the answer book and cross it through.
6. No part of this book is to be torn out; it must be handed in complete.
7. If more books than one are used, fasten them together using the tags available from the invigilator(s).
8. **Every book must be handed in. In no circumstances may answer books, used or unused, be taken out of the examination venue.**

1	Student Number	P144280
2	Title of Examination Paper	System Engineering
3	Module Code	M6X00947
4	Date and Time of Examination	30/6/17
5	Examination Venue	
6	Seat Number	

7	Number of Answer Books handed in	
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[illegible]

Please complete this section and SEAL before the examination starts.

STEPHEN

(Block Capitals) Forename(s)

2025

Surname

2) Define - Map - Make - Pull - Work

~~Define~~
Define - This is the process of defining what the process or output of a project is, with the customer or ~~stakeholder~~ stakeholder input.

Map - ~~Are~~ This is where the Value Stream is mapped ~~out~~ out, where the Value and Non Value is within the project.

Make - This is ~~where~~ where the project is made, from start to finish. Taking into account the production process, components required, personnel requirements, etc.

Pull, This is the demand from the customer. When they have a demand then a service or product is ~~given~~ manufactured or given, rather than stock piling, much like a made to order system.

Work - The review part of the process where ~~the~~ it monitoring and improvement is conducted, ~~to~~ aiming for perfection.

b) Value adding activity is considered to be work conducted that benefits the customer.

Non Value activity is the work or process that needs to be done that does not give any value to the customer. This could be maintenance of the equipment that needs to be carried out. Supervision requirements that although needs to be done does not give value to the customer directly.

c) There are eight wastes that can affect a project, ~~that could be~~ that if identified could improve performance and reduce cost within a project.

Talent - Under utilising the work force to their potential. Using a person to conduct a task that could be done by someone else. Freeing up the experience + knowledge for the first person to be able to do.

Motion - This is where a person may ~~need to complete~~ be completing a task in a complex way where by the task could be altered in a way to make the process more fluid. Increasing the apt or reducing the energy going into the task.

Wait - Having employees waiting in between tasks, or waiting for supplies or parts ~~is~~ ~~could be~~ is a loss of time. ~~the~~ Utilising people between downtime or improving the system to reduce waiting will benefit the process.

3

Defects - Having to remanufacture parts or having to conduct repairs on returned items can affect the overall value from the project. ~~reducing~~

2

Transportation - reducing the amount of transportation of goods being delivered from suppliers, or the amount of distance between process can in plant will reduce transportation wastes

3

Inventory - Stock piling parts, or final products is a waste, using resources to have a backpile could be reduced by having a system that has enough in stock to cover the demand.

2

Over production - manufacturing more than the requirement is the worst waste. To over produce affects all other parts of the process, forcing them to waste time and effort for having products that there is no requirement for.

3

Over processing. - To much processing
is a waste. Making an item
that ~~is~~ in a high quality manner,
costs. ~~IF the quality of item is~~
~~lower than what~~

IF the quality demanded is lower
than what is produced then this
causes a waste that could be
removed.

3c) Conducting an ~~FMEA~~ FMEA
exercise can ~~highlight~~ highlight
several areas.

The likelihood of a failure to happen
the severity of a failure if it was to
happen.

It can also highlight what may have been
the process of or part that is the weak
point in the process. Also showing what
parts ~~to~~ ~~might be~~ may need attention
first.