BIG TEST ★ GROOT TOETS 1

MODULE CODE/KODE	**ITRW 213**	DURATION/DUUR	**80 min**
EXAMINER/EKSAMINATOR	**Imelda Smit**	MARKS/PUNTE	**40**
MODERATOR	**Prof Roelien Goede**	DATE/DATUM	**2016-03-03**
		TIME/TYD	**17:00**

MEMORANDUM

Answer all the questions. ★ Beantwoord al die vrae.

Question	Vraag 1 [Chapter	Hoofstuk 1]	[8]

Draw a **mindmap** of Chapter 1 (The value of SA&D). You need to include as much information as possible – in a compact way. Make sure your mindmap is complete, visual, colourful and logical. Also display the acronyms you created.

Teken 'n **breinkaart** van Hoofstuk 1 (Die waarde van SO&O). Sluit soveel inligting as moontlik in – op 'n kompakte wyse. Maak seker jou breinkaart is volledig, visueel, kleurvol en logies. Vertoon ook die akronieme wat jy geskep het.

Answer (refer to Chapter 1)
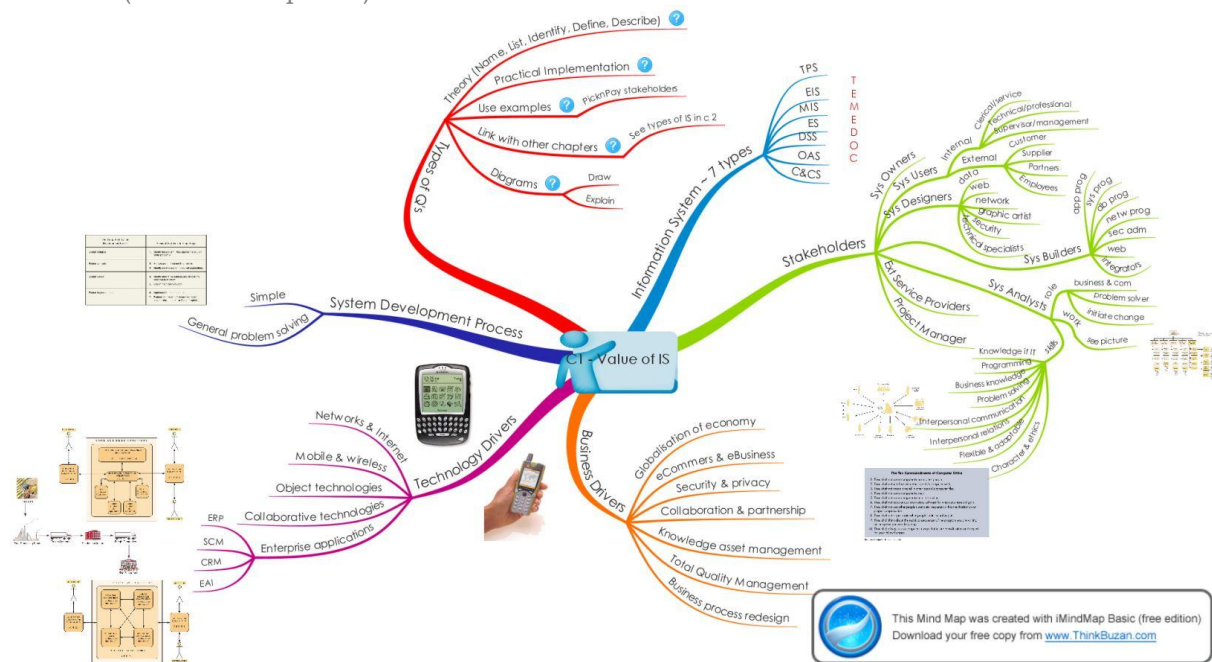
Mark Allocation   List 5 main topics ✓✓✓ | 4 main topics ✓✓ | 3 main topics ✓
Lots of detail ✓✓ | Not much detail ✓
Visual and/or colourful presentation ✓
Logical representation ✓
Acronyms included ✓

2.1> In an information system, the **process building blocks** represent *the work* that occurs in a system, which may be performed by people or by computers and machinery. Stakeholders tend to have different views or perspectives of these building blocks. What are these different stakeholder perspectives regarding processes and how do they differ from each other?	2.1> In 'n inligtingstelsel verteenwoording die **prosesboublokke** *die werk* wat in 'n stelsel gebeur, of dit nou deur mense of rekenaars en masjiene gedoen word. Potbewaarders is geneig om verskillende sienings of perspektiewe van die boublokke te hê. Wat is die verskillende potbewaarder perspektiewe in terme van prosesse en hoe verskil hulle van mekaar?

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2.2> Assume that you are designing an **order management system** that will integrate all business functions triggered by the submission of a sales order. What typical business functions would be included in a cross-functional information system? Read the section below before answering the question.	2.2> Gee voor dat jy 'n **bestellingbestuurstelsel** ontwerp wat alle besigheidsfunksies wat gesneller word deur die skep van 'n verkoopsbestelling, integreer. Watter tipiese besigheidsfunksies sal ingesluit word in 'n kruis-funksionele inligtingstelsel? Lees die afdeling hieronder voor jy die vraag antwoord.

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As business technology becomes more powerful and sophisticated, many businesses are redesigning their single-function information systems, such as sales, into **cross-functional** information systems that provide integrated support for separate, but related, business functions.

Answer 2.1 (refer to p. 51-55)

System owners, system users, system designers, and system builders each tend to have a different perspective of the system processes. Their typical views are shown below:
 a. System Owners are concerned with *high-level* processes or *business functions* from a **strategic viewpoint**. ✓
 b. System Users are concerned with the processes or '*work' that must be performed to provide the appropriate responses to business events* from an **operational viewpoint**. ✓
 c. System Designers are concerned with the business processes from a **technical viewpoint** of which to automate and *how best to automate them*. ✓
 d. System Builders are concerned with the business processes from the **technical viewpoint** of the *programming logic to be used*. ✓

Mark Allocation   See allocated marks.

Answer 2.2 (refer to p. 51-53)

- Sales order processing ✓
- Order fulfillment ✓
- Shipping ✓
- Billing ✓
- Post-sales service and support (as applicable) ✓

Mark Allocation   See allocated marks.

The PIECES framework was developed as a means to classify problems.

3.1> Identify the **PIECES categories**.

3.2> **Categorise** the following problems using the PIECES framework:

    a. Duplicate data is stored throughout the system.
    b. Quarterly sales reports need to be generated automatically.
    c. Employees can gain access to confidential portions of the personnel system.
    d. User interfaces for the inventory system are difficult and confusing, resulting in a high frequency of incorrect orders.

Die PIECES raamwerk is ontwikkel om te help met die klassifisering van probleme.

3.1> Identifiseer die **PIECES kategorieë**.

3.2> **Kategoriseer** die volgende probleme deur die PIECES raamwerk te gebruik:

    a. Duplikaatdata word regdeur die stelsel geberg.
    b. Kwartaallikse verkoopsverslae moet outomaties gegenereer word.
    c. Werknemers kan toegang tot konfidensiële gedeeltes van die personeelstelsel verkry.
    d. Gebruikerskoppelvlakke vir die voorraadstelsel is moeilik en verwarrend, wat lei tot 'n hoë frekwensie van foutiewe bestellings.

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Answer 3.1 (refer to p. 77-78)

The categories of problems are:
- performance, ½✓
- information and data, ½✓
- economics (costs and profits), ½✓
- control or security, ½✓
- efficiency of people and processes, ½✓ and
- service to stakeholders. ½✓

Answer 3.2 (refer to p. 77-78)

a. Information, Efficiency or Control ½✓
b. Efficiency ½✓
c. Control ½✓
d. d. Efficiency, Information, Service and possibly Control ½✓

Mark Allocation   See allocated marks.

Study Project A, with the following tasks (activities), it's predecessors and duration:

Bestudeer Projek A, met die volgende take, hul voorgangers en die tydsduur:

Task / Taak	Duration / Tydsduur	Predecessors / Voorgangers
A	4	-
B	8	-
C	5	A
D	11	B
E	7	A, B
F	10	C, E
G	16	D
H	6	F

(4.1) Draw an **Activity-on-Arrow** network for Project A.

(4.2) **Indicate** all **paths** on the network diagram.

(4.3) Identify the **Critical Path** and explain.

(4.4) Which tasks have **slack time**? How much slack?

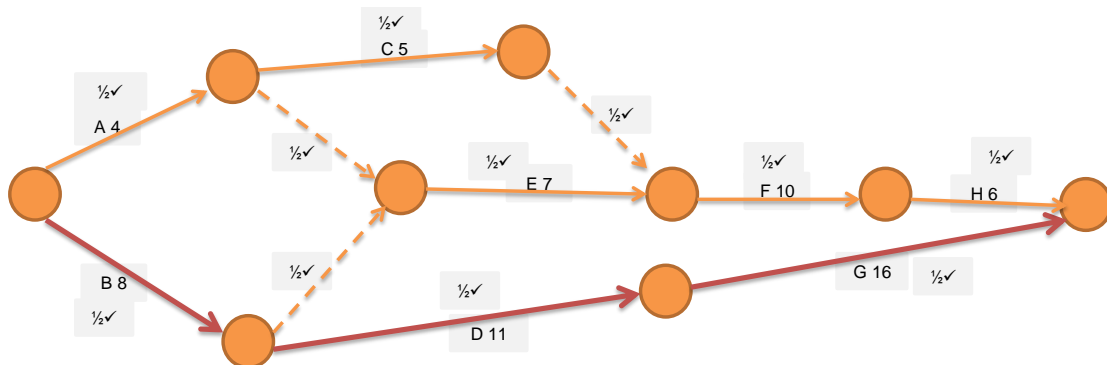|	
5	(4.1) Teken 'n **Aktiwiteit-op-Pyl** netwerk vir Projek A.
2	(4.2) **Dui al die paaie** op die netwerk diagram.
1	(4.3) Watter een is die **Kritiese Pad**? Verduidelik.
4	(4.4) Watter take het **tydspeling**? Hoeveel speling?

Answer 4.1 (refer to p. 125-128)

Mark Allocation   See allocated marks

Answer 4.2 (refer to p. 125-128, 148-149)
A-C-F-H = 25 days ½✓
A-E-F-H = 27 days ½✓
B-E-F-H = 31 days ½✓
B-D-G = 35 days ½✓; *"days" --> assumption*

Mark Allocation   See allocated marks.

Answer 4.3 (refer to p. 148-149)
Critical Path = B-D-G ½✓ = 35 days ½✓ *"days" --> assumption*

Mark Allocation   See allocated marks.
Answer 4.4 (refer to p. 148-149)
Between ½✓A-C-F-H = 10 days ✓
Between ½✓ A-E-F-H = 8 days ✓
Between ½✓ E-F-H = 4 days ✓ *"days" --> assumption*

Mark Allocation   See allocated marks.

Why should **acceptance test cases** be defined during the logical design phase? After all, the technical design has not been done yet, let alone building the system. Should testing activities not at least wait until construction is underway?	Hoekom behoort **aanvaardingtoetsgevalle** gedurende die logiese ontwerpfase gedefinieer te word? Die tegniese ontwerp is tog nog nie gedoen nie, wat nog te sê van die bou van die stelsel. Moet toetsaktiwiteite nie ten minste wag tot konstruksie beging nie?

Answer (refer to p. 191-192)

It is never too early to start working on system testing. ✓ The system models and prototypes lend themselves very well to defining and developing test cases, since they contain the data and business rules, as well as the processing requirements, against which you are ultimately going to test. ✓ In fact, developing test cases at this point is actually an excellent way to validate the **functional requirements** ✓. If a functional requirement is incorrect or missing, the earlier you find it, the easier and cheaper it is to fix! ✓

Mark Allocation   See allocated marks.