NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
VAAL TRIANGLE CAMPUS

BIG TEST 1 ★ GROOT TOETS 1

MODULE CODE/KODE	**ITRW 213**	DURATION/DUUR	**1h 40min**
EXAMINER/EKSAMINATOR	**Imelda Smit**	MARKS/PUNTE	**50**
MODERATOR	**Prof Roelien Goede**	DATE/DATUM	**2015-03-10**
		TIME/TYD	**17:00**

MEMORANDUM

Answer all the questions. ★ Beantwoord al die vrae.

Question 1 | Vraag 1 [Chapter 1| Hoofstuk 1] **[10]**

Make use of **a table** and distinguish between **two categories** of **system users**. Include an **example** of each.

Maak gebruik van '**n tabel** en onderskei tussen **twee stelselgebruikers kategorieë**. Gee 'n **voorbeeld** van elk.

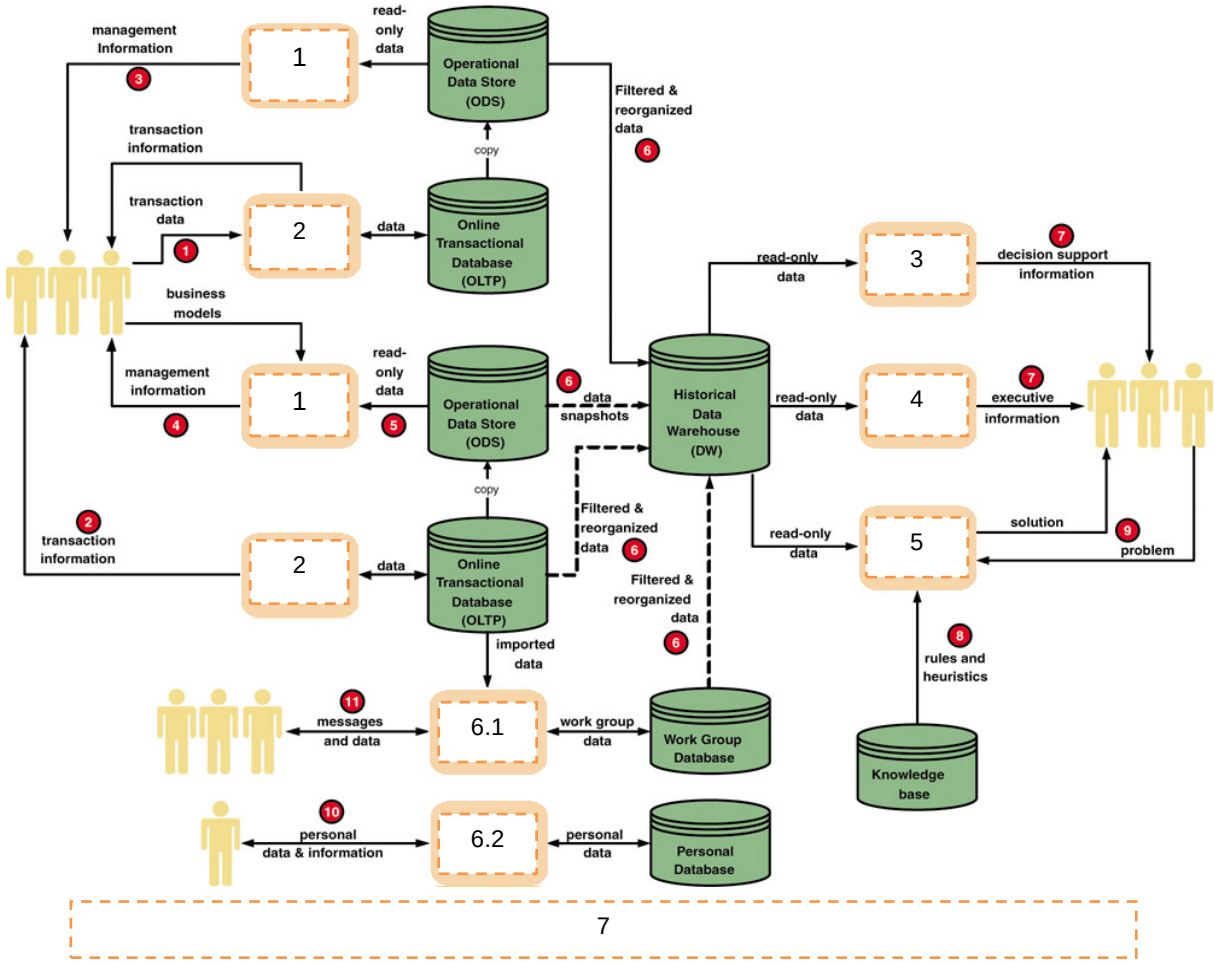
Answer:

Internal System Users √	External System Users √
• Clerical and Service Workers √	• Customers √
• Technical and professional staff √	• Suppliers √
• Supervisors, middle & executive managers √	• Partners √
Table format - √	• Employers √

Mark Allocation: See allocated marks

Question 2 | Vraag 2 [Chapter 2 | Hoofstuk 2] [10]

Study the following diagram: **Bestudeer die volgende diagram:**



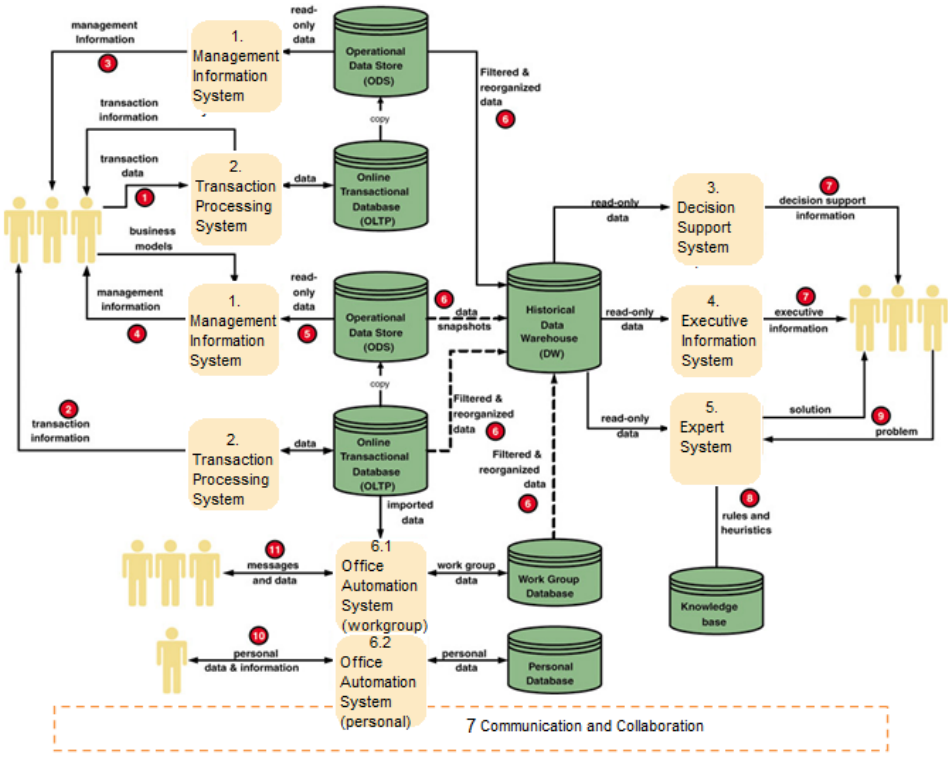
(2.1) You studied 7 types of **Information Systems**, indicate and **name them** on the diagram given.
(2.2) Explain the **difference** between **Front-office** information systems and **Back-office** information systems.

7	(2.1) Jy het 7 tipes **Inligtingstelsels** bestudeer, identifiseer en **dui hulle aan** op die gegewe diagram.
3	(2.2) Verduidelik die **verskil** tussen **Voorkant** inligtingstelsels en **Agterkant** inligtingstelsels.

Answer: (2.1)

1. MIS – Management Information System √
2. TPS – Transaction Processing System √
3. DSS – Decision Support System √
4. EIS – Executive Information System √
5. ES – Expert System √
6. OAS – Office Automation System - 6.1 Work group½√, 6.2 Personal½√
7. Communication and Collaboration √

Must be indicated on diagram (see below).



Mark Allocation: √ **1 mark per correct indication on diagram**

Answer: (2.2)

Front-Office = an information system ½√ that supports business functions ½√ that extend out to the organizations customers ½√

Back-Office = an information system ½√ that supports internal business operations ½√ of an organization, as well as reaches out to suppliers ½√

Mark Allocation: See marks allocated

Question 3 | Vraag 3 [Chapter 3 | Hoofstuk 3] **[10]**

(3.1) Make a drawing that illustrates the lifetime of a system clearly. **5**

(3.2) Discuss the **PIECES** framework **3**

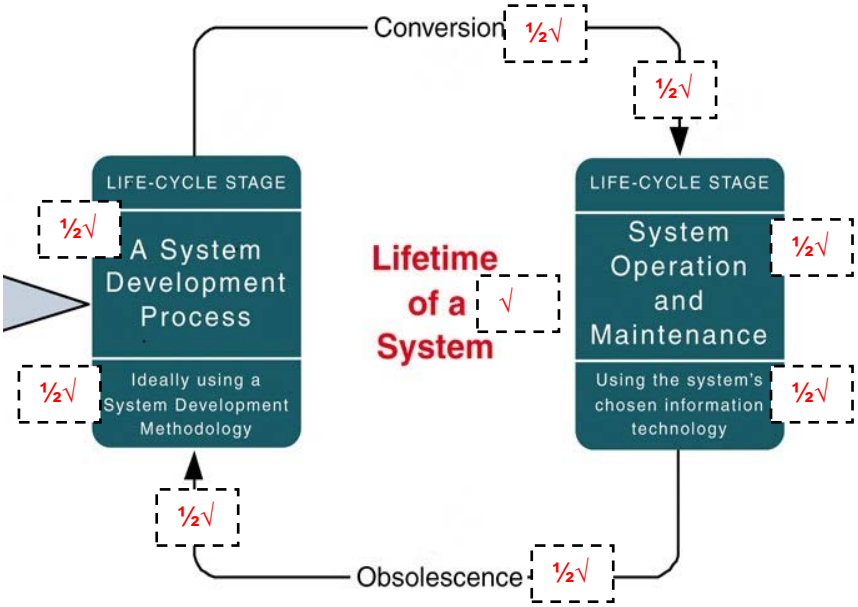
(3.3) Explain what you understand **CASE-tools** te be. Give an **example** of a CASE-tool. **2**

(3.1) Teken n diagram wat die leeftyd van 'n stelsel duidelik illustreer.

(3.2) Bespreek die **PIECES** Raamwerk.

(3.3) Verduidelik wat jy verstaan onder **CASE – hulpmiddels**. Gee n **voorbeeld van 'n CASE-hulpmiddel**.

Answer: (3.1)



Mark Allocation: See marks allocated

Answer: (3.2)

P – need to correct/improve performance / werksverigting ½√
I – need to correct/improve information / inligting ½√
E – need to correct/improve economics / ekonomie ½√
C – need to correct/improve control or security / sekuriteit of beheer ½√
E – need to correct/improve efficiency of people and processes / Effektiwiteit ½√
S – need to correct/improve services to customers / Dienste ½√
Mark allocation: See marks allocated

Answer: (3.3)
Use of automated software tools that supports the drawing and analysis of system models and associated specifications √ + example (UML design tool, Visual Paradigm, IDE, Method-Specific, Rational) √

Mark allocation: See marks allocated

Question 4 | Vraag 4 [Chapter 4 | Hoofstuk 4] [15]

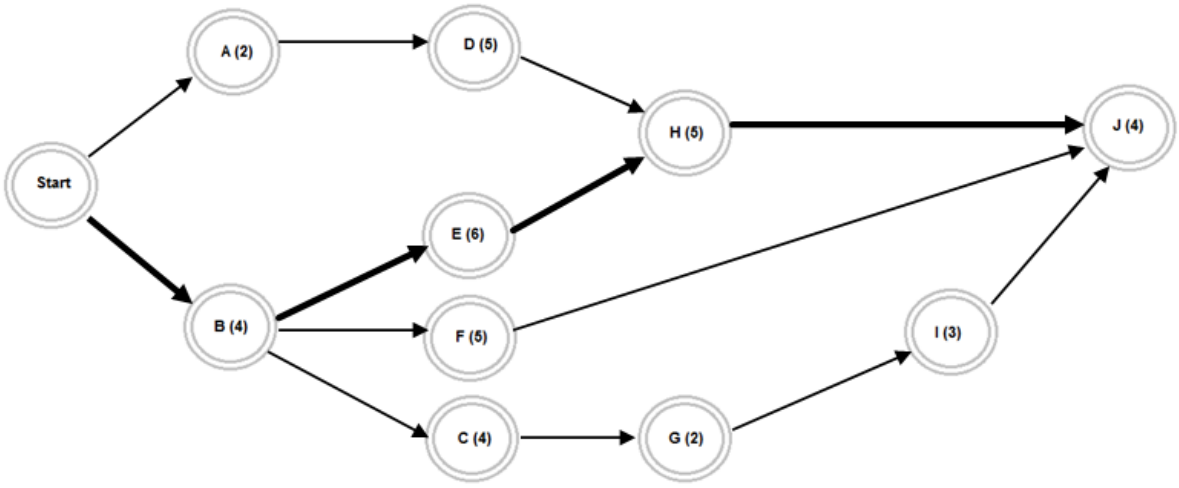
Study Project A, with the following tasks (activities), it's predecessors and duration:

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

Task / Taak	Duration / Tydsduur	Predecessors / Voorgangers
A	2	None / Geen
B	4	None / Geen
C	4	B
D	5	A
E	6	B
F	5	B
G	2	C
H	5	D,E
I	3	G
J	4	F, H, I

	(4.1) Draw an **Activity-on-Node** network for Project A. (4.2) **Indicate** all **paths** on the network diagram.	(4.1) Teken 'n **Aktiwiteit-op-Node** netwerk vir Projek A. (4.2) **Dui al die paaie** op die netwerk diagram.
5		
4	(4.3) Identify the **Critical Path** and explain.	(4.3) Watter een is die **Kritiese Pad**? Verduidelik.
2		
4	(4.4) Which tasks have **slack time**? How much slack?	(4.4) Watter take het **tydspeling**? Hoeveel speling?

Answer: (4.1)



Mark Allocation: ½√ per node, excluding 'start'

Answer: (4.2)
- **A-D-H-J = 16 days √**
- **B-E-H-J = 19 days √**
- **B-F-J = 13 days √**
- **B-C-G-I-J = 17 days √**

Mark Allocation: See marks allocated

Answer: (4.3)
Critical Path = B-E-H-J √ = 19 days √
Marks Allocation: See marks allocated

Answer: (4.4)
Between ½√ A,D = 3 days √
F = 6 days √

Between ½√ C, G, I = 2 days √

Mark Allocation = See allocated marks

Question 5 | Vraag 5 [Chapter 5 | Hoofstuk 5] [5]

List and shortly explain the **steps/phases** of system analysis.

Lys en beskryf die **stappe/fases** van stelselontleding kortliks.

Answer:

1. **Scope Definition ½√ – answers the question "Is the project worth looking at?" ½√**
2. **Problem Analysis ½√– provides analysts with thorough understanding of the problems, opportunities and directives ½√**
3. **Requirements Analysis ½√ – defines business requirements for the new system ½√**
4. **Logical Design ½√– further documents business requirements using system modelling½√**
5. **Decision Analysis ½√– identify candidate solutions, analyze those solutions and recommend a target system½√**

Mark Allocation: See allocated marks