



**BIG TEST ★ 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    | 11-03-2014 |
|                      |                    | TIME/TYD      | 17:00      |

**MEMORANDUM**

**Answer all the questions. ★ Beantwoord al die vrae.**

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

**[5]**

The following are examples of **stakeholders** of **Pick n Pay's system**. Can you identify which **role category** each belongs to? Be specific in your answer.

- |                               |    |                                 |
|-------------------------------|----|---------------------------------|
| Buyers                        | a) | Kopers                          |
| Security company              | b) | Sekuriteitsmaatskappy           |
| Web master                    | c) | Web-meester                     |
| Chief Executive Officer (CEO) | d) | Hoof-Uitvoerende Beampste (HUB) |
| Admin staff                   | e) | Administratiewe personeel       |

Die volgende is voorbeelde van **Pick n Pay se stelsel se belanghebbendes**. Kan jy identifiseer aan watter **rolkategorie** elkeen behoort? Wees spesifiek in jou antwoord.

**Answer:** p7-16 Applied to an example

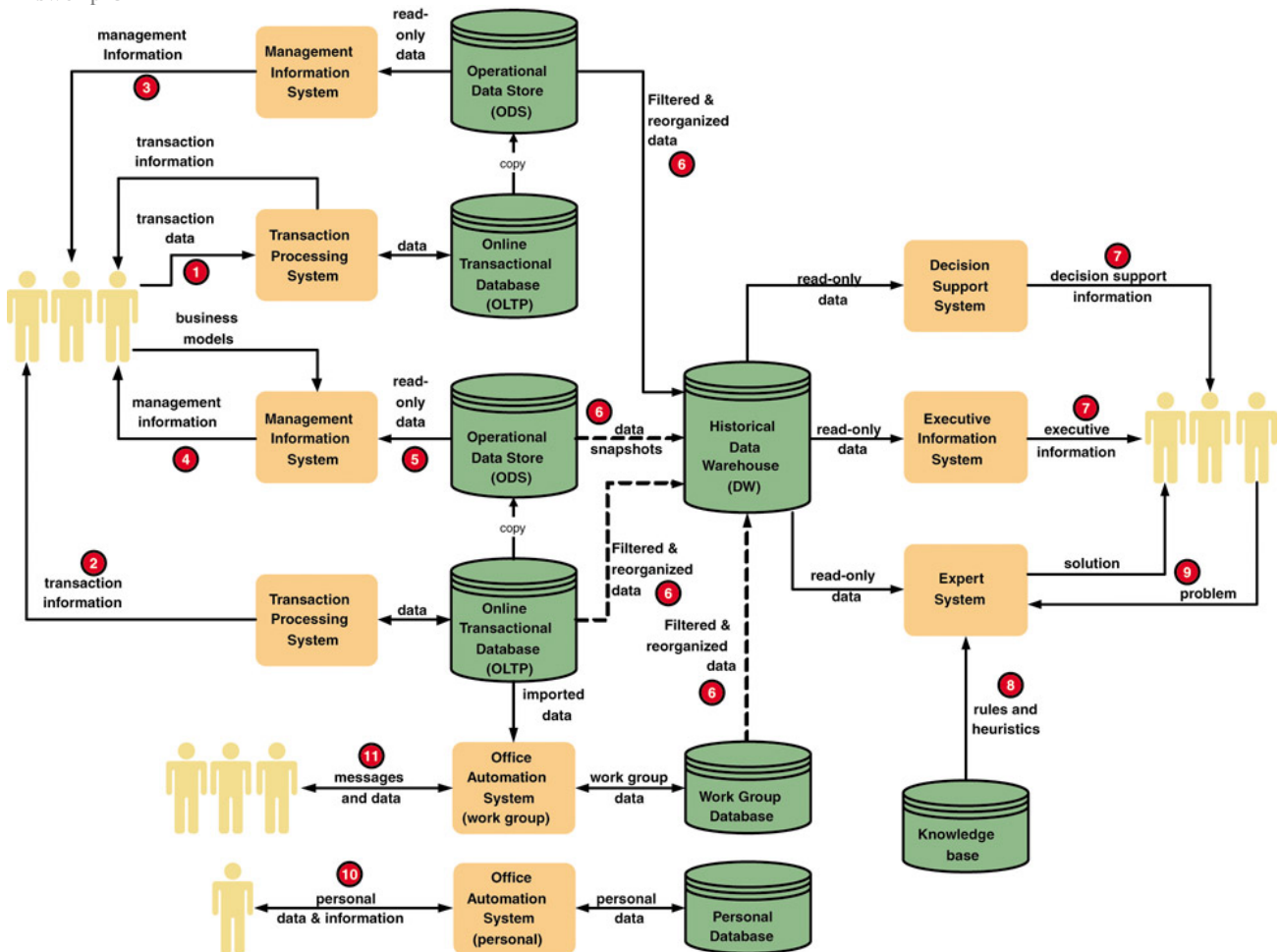
- a) Buyers ~ External system users  $\frac{1}{2}\checkmark$  (customers)  $\frac{1}{2}\checkmark$
- b) Security company ~ System designer  $\frac{1}{2}\checkmark$  (security expert)  $\frac{1}{2}\checkmark$  | System builders  $\frac{1}{2}\checkmark$  (security administrators)  $\frac{1}{2}\checkmark$  (any one)
- c) Web master ~ Systems builder  $\frac{1}{2}\checkmark$  (code and maintain web)  $\frac{1}{2}\checkmark$
- d) Chief Executive Officer ~ System owner  $\checkmark$
- e) Admin staff ~ Internal system users  $\frac{1}{2}\checkmark$  (clerical and service workers)  $\frac{1}{2}\checkmark$

**Mark allocation:** See allocated marks.  
Example: Only half a mark if only customer (and not external system user) is mentioned – and visa versa.

Draw a representation of the seven different types of information systems in the Pick n Pay system case study.

Teken 'n voorstelling van die sewe verskillende tipes inligtingstelsels in die Pick n Pay stelsel se gevallestudie.

Answer p45



① Transaction Processing System ½✓ with live ½✓ transaction information to users ② ½✓

⑤ Read-only ½✓ ③ Management Information ½✓ from the ④ Management Information System ½✓ taking data snapshots ½✓ ⑥ filtered from ½✓ the data warehouse ½✓

⑦ Decision Support System ½✓, Executive Information System ½✓ supplying read only information to users and ⑧ Expert System ½✓ supplying knowledge via rules and heuristics ½✓ from a knowledge base ½✓ regarding specific problems ⑨ – all read only ½✓

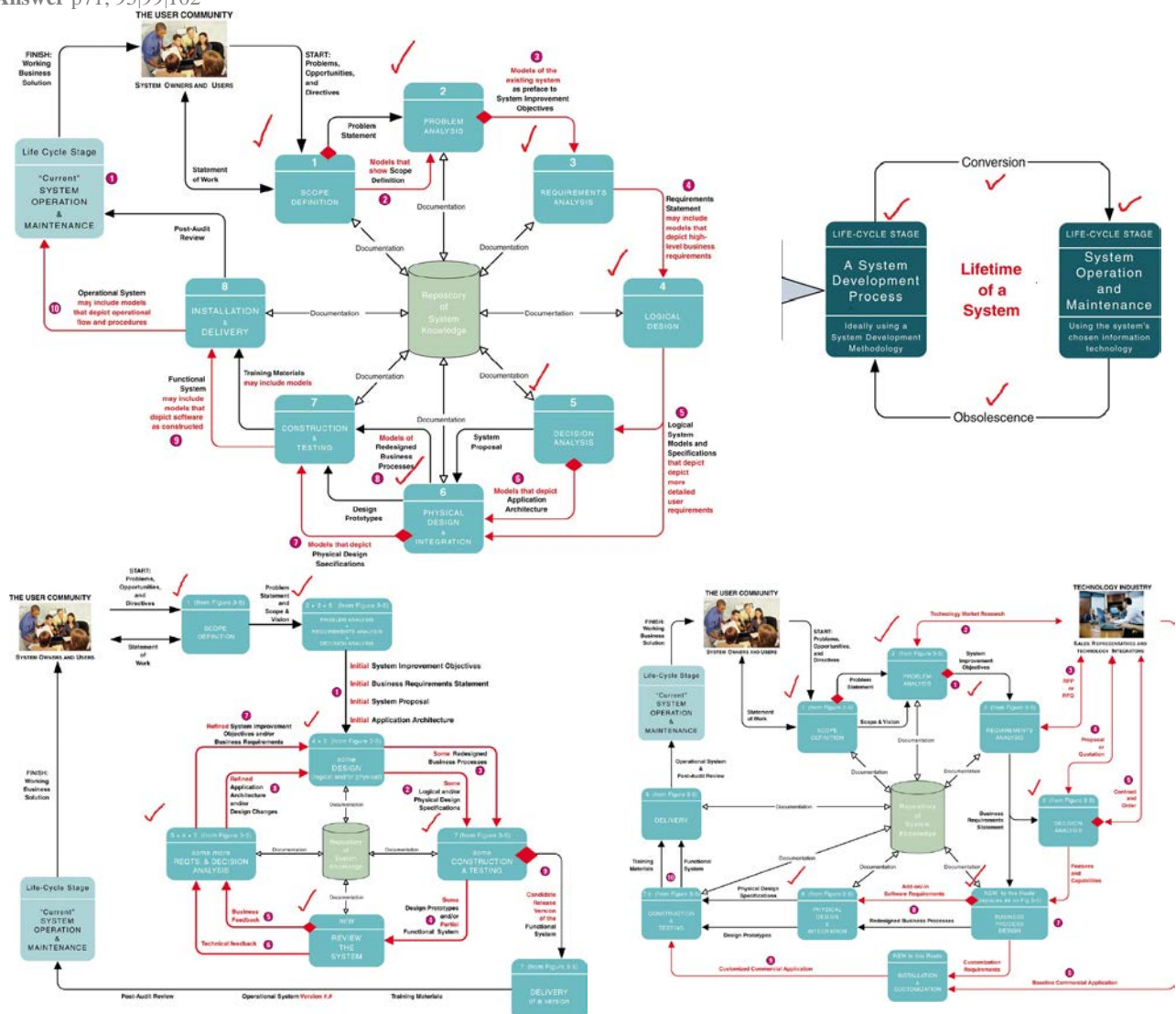
⑩<sup>+</sup> Office Automation System support personal work ½✓ (data & information gets sent ½✓) and group work ½✓ by using a communication and Collaboration System ½✓ in the form of messages ½✓ – live data ½✓

More marks may be given for relevant answers.

**Mark allocation:** A max of 10 marks may be allocated.

Teken 'n prentjie om die verskil tussen die stelsellewensiklus en 'n stelselonwikkelingsmetodologie te illustreer. Dit behoort ook die lewenstyd van 'n stelsel voor te stel. Jy mag enige metodologie in jou antwoord gebruik.

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See allocated marks. A maximum of 6 marks can be earned for the selected systems development life cycle. A more simplified version of the systems life cycle (eg as shown in chapter 1) may also be used.

Study project X, with the following tasks (activities), its predecessors and duration:

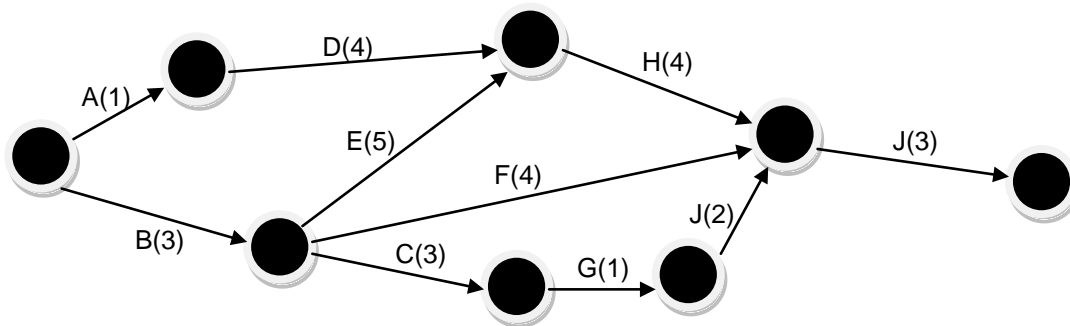
Bestudeer projek X, met die volgende take (aktiwiteite), hul voorgangers en duur:

| Tasks/Take | Duration (day)/Duur (dag) | Predecessors/Voorgangers |
|------------|---------------------------|--------------------------|
| A          | 1                         | None / Geen              |
| B          | 3                         | None / Geen              |
| C          | 3                         | B                        |
| D          | 4                         | A                        |
| E          | 5                         | B                        |
| F          | 4                         | B                        |
| G          | 1                         | C                        |
| H          | 4                         | D, E                     |
| I          | 2                         | G                        |
| J          | 3                         | F, H, I                  |

- 1.1 Draw an **activity-on-arrow** network diagram for project X.  
 1.2 Indicate **all the paths** on the network diagram.  
 1.3 Which one is the **critical path**? Why?  
 1.4 Which tasks have **slack time**? How much slack?

- 5 1.1 Teken 'n **aktiwiteit-op-pyl** netwerk diagram vir projek X.  
 4 1.2 Dui **al die paaie** op die netwerkdiagram aan.  
 2 1.3 Watter een is die **kritiese pad**? Hoekom?  
 4 1.4 Watter take het **tydspeling**? Hoeveel speling?

**Answer: Refer p125-128, 143-149**



- 1.1  $\frac{1}{2}\checkmark$  per arrow, max 5  
 1.2 A-D-H-J --> 12 days  $\checkmark$   
 B-E-H-J --> 15 days  $\checkmark$   
 B-F-J --> 10 days  $\checkmark$   
 B-C-G-I-J --> 12 days  $\checkmark$   
 1.3 B-E-H-J --> 15 days  $\checkmark$  the longest path  $\checkmark$   
 1.4 Between  $\frac{1}{2}\checkmark$  A, D --> 3 days  $\checkmark$  Between  $\frac{1}{2}\checkmark$  C, G, I --> 3 days  $\checkmark$  F --> 5 days  $\checkmark$

**Mark allocation:** See allocated marks.

Supply the **systems analysis phases** and indicate in **which phases of systems analysis** the following **cross life cycle activities** will be used: Fact-finding, Documentation and Presentation, Feasibility Analysis, Process and Project Management. Use a table to present your answer.

Verskaf die **stelselontledingfases** en dui aan in **watter fases van stelselontleding** die volgende **kruislewensiklusaktiwiteite** gebruik sal word: Feite-vind, Dokumentasie en Voorstelling, Lewensvatbaarheidsontleding, Proses- en Projekbestuur. Gebruik 'n tabel om jou antwoord voor te stel.

**Answer: Refer chapter 5 p160-205**

| SA Phase ➡<br>Cross Life Cycle Activity ⬅ | Scope<br>definition ✓ | Problem<br>Analysis ✓ | Requirement<br>analysis ✓ | Logical<br>design ✓ | Decision<br>analysis ✓ |
|---|-----------------------|-----------------------|---------------------------|---------------------|------------------------|
| Fact-finding                              | X ½✓                  | (-½✓)                 | (-½✓)                     | (-½✓)               | X ½✓                   |
| Documentation and Presentation            | X ½✓                  | X ½✓                  | X ½✓                      | X ½✓                | X ½✓                   |
| Feasibility Analysis                      | X ½✓                  | X ½✓                  | X ½✓                      | X ½✓                | X ½✓                   |
| Process and Project Management            | X ½✓                  | X ½✓                  | X ½✓                      | X ½✓                | X ½✓                   |

**Mark allocation:** See allocated marks.  
SA Phases 5 marks; X's a max of 5 marks.