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

SEMESTER TEST / SEMESTERTOETS 2

MODULE CODE/KODE	**ITRW 213**	DURATION/DUUR	**70 min**
EXAMINER/EKSAMINATOR	**Imelda Koen**	MARKS/PUNTE	**40**
MODERATOR	**Dr Roelien Goede**	DATE/DATUM	**28-03-2012**
		TIME/TYD	**9:30**

MEMORANDUM

Beantwoord al die vrae.
Answer all the questions.

Vraag 1 / Question 1 **[20]**

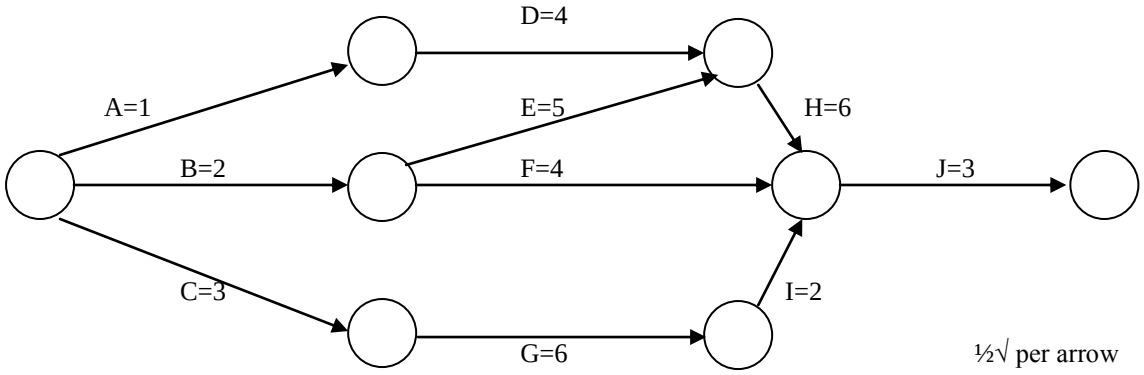
Study project X, with the following tasks (activities), its predecessors and lengths:
Bestudeer projek X, met die volgende take (aktiwiteite), hul voorgangers en lengtes:

Tasks ***Take***	**Duration (day)** ***Duur (dag)***	**Predecessors** ***Voorgangers***
A	1	None / *Geen*
B	2	None / *Geen*
C	3	None / *Geen*
D	4	A
E	5	B
F	4	B
G	6	C
H	6	D, E
I	2	G
J	3	F, H, I

1.1 Draw an activity-on-arrow network diagram for project X. / *Teken 'n aktiwiteit-op-pyl netwerk diagram vir projek X.* (5)
1.2 Indicate all the paths on the network diagram. / *Dui al die paaie op die netwerkdiagram aan.* (4)
1.3 Which one is the critical path? Why? / *Watter een is die kritiese pad? Hoekom?* (2)
1.4 Which tasks have slack time? How much slack? / *Watter take het speling? Hoeveel speling?* (4)
1.5 Draw a Gantt chart of project X. Use forward scheduling and start on 1 April 2012. / *Teken 'n Gantt-kaart van projek X. Gebruik voorwaardse skedulering en begin op 1 April 2012.* (5)

Answer: Refer p125-128, 143-149

1.1



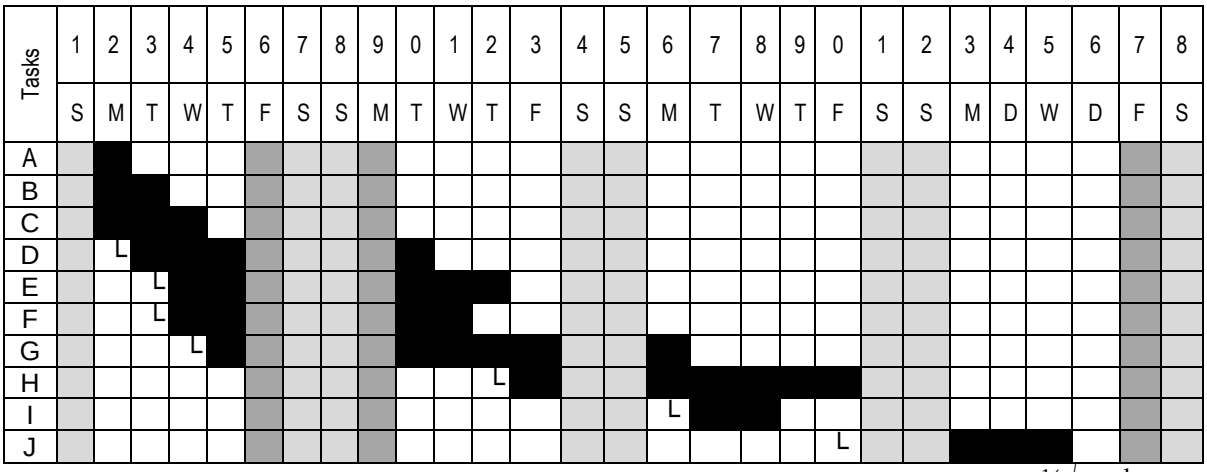
½√ per arrow

1.2 A-D-H-J --> 14 days √
B-E-H-J --> 16 days √
B-F-J --> 9 days √
C-G-I-J --> 14 days √

1.3 B-E-H-J --> 16 days √ the longest path √

1.4 Between ½√ A, D --> 2 days √ Between ½√ C, G, I --> 2 days √ F --> 7 days √

1.5



½√ per bar

Mark allocation:

See allocated marks.

Vraag 2 / Question 2 **[5]**

List the five steps/phases of systems analysis. / *Lys die vyf stappe/fases van stelselontleding.*

Answer: Refer p161

Scope definition √ Problem analysis √ Requirements analysis √ Logical design √ Decision analysis √

Mark allocation:

See allocated marks.

Vraag 3 / Question 3 **[5]**

State your suggested fact-finding strategy for your project. / *Stel jou voorgestelde feite-insamelingstrategie vir jul projek.*

Answer: Refer p 235

Possible steps:

1. Learn from: existing documents, forms, reports, files. √
2. Observe the system in action – if possible. √
3. Compile questionnaire to clear up questions. √
4. Conduct interviews to verify and clarify difficult issues/problems. √
5. Build a discovery prototype. √
6. Follow up if necessary; interviews and/or observation.

Mark allocation:

See allocated marks.

Vraag 4 / Question 4 **[10]**

Study the following case study:

Bestudeer die volgende gevallestudie:

Kunsan Hanvit Inc. is a small custom manufacturing firm located in Kunsan South Korea. When Chung-Hee Ko, the owner, first brought computers into the business office, the firm was very small and simple. He was able to use an inexpensive PC-based accounting system to handle the basic information-processing needs of the firm. As time went on, the firm grew and the work has become much more complex. The firm's business contracts are as complex as the custom products it manufactures. The simple accounting software is no longer able to keep track of many of the company's sophisticated contracts with its customers.

Mr Ko has a staff of four in the business office who are familiar with the intricacies of the company's record-keeping requirements. He recently discussed with his staff his plan to hire an information system (IS) consultancy to evaluate Kunsan Hanvit's IS needs and proposes an upgrading of its computer system. The staff is excited about the prospect of a new system, because the current system has caused much aggravation. However, they are wary of the consultants who will be conducting the project.

Assume that you are a systems analyst on the consulting team assigned to the Kunsan Hanvit Inc. project. At your first meeting with the staff, you want to be sure that they understand the work that your team will be

performing and how they will participate in that work.

4.1 Explain to the client, in clear, nontechnical terms, how use-cases and a use-case diagram will be used by the project team. Also explain what these models are and what they represent in the system.
Verduidelik in duidelike, nie-tegniese terme aan die kliënt hoe gebruiksgevalle en gebruiksgevallediagramme deur die projekspan gebruik sal word. Verduidelik ook wat hierdie modelle is en wat hulle in die stelsel verteenwoordig. (4)

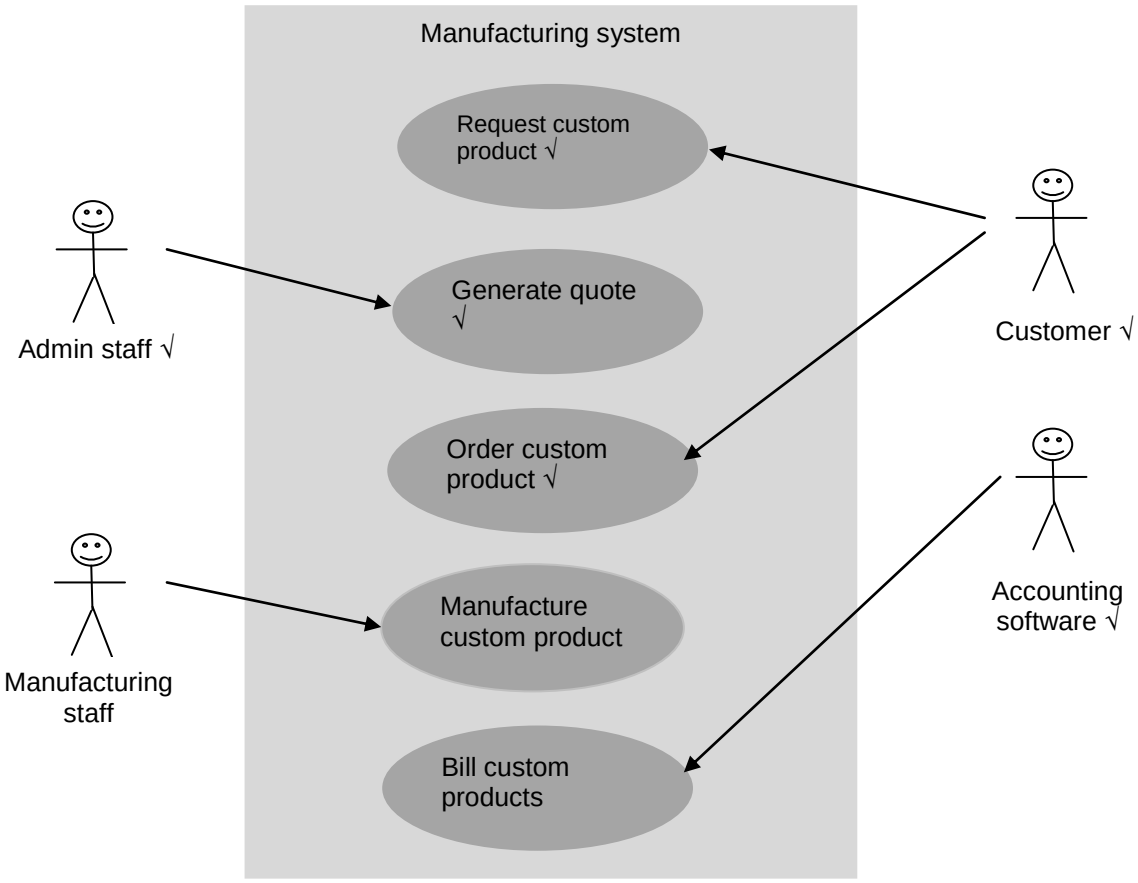
4.2 Draw a system use-case diagram with only the basic use-cases (3-4 functions/systems) and actors (3-4 roles).
Teken 'n stelsel gebruiksgevallediagram met slegs die basiese gebruiksgevalle (3-4 funksies/stelsels en akteurs (3-4 rolle). (6)

Answer: Refer p 232

4.1 ***Refer p 246-250***

Use-cases represent business processes √ in the system, it is a pictorial representation of the system √ to enable the user to comment and give useful feedback, √ also to form a picture of the systems' functionality. Use-case diagrams also link the requirements to the models used by the designers/developers to build the final system. √

4.2 ***Refer p 251-260 (example)***



Mark allocation:

See allocated marks.

You may use the following grid to answer your question / Jy mag die volgende rooster gebruik om die vraag te beantwoord.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5
	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	D	W	D	F	S	S	M	D	W	D	F	S