

Explain Computer Architecture Concepts

Unit Standard: 14917

NQF Level: 4

Credits: 7

Name:	
ID Number:	
Employer:	
Name of Assessor:	
Name of Facilitator:	
Date Started:	
Date of Completion & Assessment	

Keep the Dream

PO Box 3540
PAARL
7620
Tel: 082 084 1053
Fax: 086 663 2103
E-Mail: keepthedream285@gmail.com



Learner assessment contract

Learner's Name:	
Assessor's Name:	
Unit Standard:	14917
Date:	
<p>Your rights as a Learner:</p> <ul style="list-style-type: none"> ▪ You have a right to appeal against any judgment given as a result of any assessment. You must have valid reasons for doing this. ▪ You have the right to an interpreter if you need one to perform this function. However if one of the learning assumptions for the standard is that you are competent within the language of assessment, you may not have an interpreter. ▪ You can ask that an impartial observer attend any assessment. This observer may not take any part in the assessment. ▪ If you do not agree with the assessment, you have the right to have your assessment internally moderated. If you still do not agree with the result of the assessment you can ask that the ETQA perform an external moderation on the assessment. If any verification upholds the assessment findings you will be held liable for all costs of the verification. If any verification rules that you have been aggrieved as a result of the assessment, your assessor will be liable for all cost of verification. ▪ If during the assessment you are found 'not yet competent', your assessor will encourage you to master the areas where you have not reached competency, this will be recorded on a development plan. You are required to arrange with the assessor for a new assessment schedule. The assessor can only permit three such re-assessments. If a learner has not reached mastery after three additional attempts, your assessor reserves the right to remove you from the programme. <p>This standard leads to the award of US 14917</p> <p>Once the assessment is complete application will be made to register and certify you for that standard with the MictSeta</p> <ul style="list-style-type: none"> ▪ You may contact the assessor at any time for information that will assist you in learning further. 	
<p>CONFIDENTIALITY</p> <p>Each assessment application, the outcomes, results and reviews will be treated as a confidential matter by learners, assessors and moderators. No references will be made to anyone or any organisation outside the SETA about the status of an application during the assessment process.</p>	
<p>CONSENT</p> <p>I, _____, the Learner, hereby state that I have read the above and understood the contents thereof. I was given the opportunity to clarify any issues relating to the assessment process and my assessment plan. I have requested this assessment in accordance with my own free will and without duress.</p> <p>Learner's signature: _____ Date: _____</p> <p>Assessor's signature: _____ Date: _____</p>	

Assessment guide

Programme title	Keep the Dream 78964 Technical Support
Unit standard title	Explain Computer Architecture Concepts
Unit standard ID	14917

Confirmation of learner preparation for assessment

Signature of learner	
Signature of assessor	
Venue	
Date	

Assessor portfolio checklist

Check each portfolio of evidence to see if the required documentation has been included as per the checklist below.

Act	Portfolio checklist	Assessor ✓ / x	Comments
Candidate			
1.	Candidate information sheet evident.		
2.	Declaration of learner preparation and authenticity evident – signed and dated.		
3.	Candidate copy of ID and CV evident.		
4.	Portfolio of evidence checklist completed.		
Assessor			
3	Assessor has reviewed the unit standards, assessment strategy and instruments.		
4	Assessor has identified the necessary equipment, resources and venues for the assessment.		
Context			
6	All role players required in the assessment have been notified.		
7	The logistical arrangements for practical activities and workplace evidence have been completed.		

Answer the following questions in the spaces provided

SESSION 1

Task	Task 1	Mark
1	Describe the operation and implementation of components of a computer	

Task	Task 2	Mark
2	Explain the concept of firmware. What are the advantages of firmware?	

Task	Task 3	Mark
3	List the parts of a computer.	

--	--	--

Task	Task 4	Mark
4	Describe and explain the functions of any (3) named components of the computer.	

Task	Task 5
5	<p align="center">Briefly describe the following: -</p> <p align="center">I. Data handling and Memory operations</p> <p align="center">II. Control flow operations</p> <p align="center">III. Arithmetic and Logic operations</p>
I. Data handling and Memory operations	
II. Control flow operations	
IV. Arithmetic and Logic operations	

Activity		Mark
6	Briefly describe the Complex Instruction Set Computer (CISC) Pros and Cons	10

Assessment review questionnaire

Programme title	Keep the Dream 78964 Technical Support
Unit standard title	Explain Computer Architecture Concepts
U/std ID number	14917
Learner name and surname	
Learner ID number	

	Review aspect	Yes	No
1.	Assessment tools and strategies are useful	✓	
2.	Assessments conducted in a fair, non-discriminatory manner	✓	
3.	Assessments done in a fashion understood by learners	✓	
4.	Developmental needs addressed where appropriate	✓	
5.	Evidence collection supported all assessment criteria	✓	
6.	Evidence meets VARCS requirements	✓	
7.	Evident that facilitator provided proper learner support	✓	
8.	Feedback provided within the agreed timeframes	✓	
9.	Learners given the opportunity to appeal against assessment decisions	✓	
10.	Learners properly prepared for assessments	✓	
11.	Special needs of learners accommodated, if applicable	✓	

Comments:

Assessor name		Signature		Date	
----------------------	--	------------------	--	-------------	--

Learner assessment review questionnaire

Programme title	Keep the Dream 78964 Technical Support
Unit standard title	Explain Computer Architecture Concepts
U/std ID number	14917
Learner name and surname	
Learner ID number	

Review aspect		Yes	No
1.	Was the assessment process clearly explained to you?	✓	
2.	Was all evidence requirements explained to you?	✓	
3.	Were the questions / assignments written in such a way that you knew what was expected of you?	✓	
4.	Did the facilitator or assessor provide you with the required support during the evidence collection process?	✓	
5.	Did your assessor ask you if you had any special or particular needs?	✓	
6.	Was feedback provided within the agreed timeframes?	✓	
7.	Was the assessment feedback clear enough to assist you in understanding your developmental needs?	✓	
8.	Was the assessment conducted in a fair, non-discriminatory manner?	✓	
9.	Was the evidence judged in accordance with the requirements outlined to you?	✓	
10.	Were you given the opportunity to appeal against an assessment decision?	✓	
11.	Do you feel that the assessment process was useful?	✓	

Comments:

Learner name		Signature		Date	
Assessor name		Signature		Date	

Formative assessment

NQF link

- Unit standard ID 14917 – Explain Computer Architecture Concepts.
- Specific outcome 1 –
- Specific outcome 2 –
- Specific Outcome
- Specific Outcome
- Critical crossfield outcomes
- The competency rating is 80%
- Learners who do not achieve the competency rating will be given an opportunity to do a remedial assessment
- It is highly recommended that all formative assessments are done in small groups of up to four people to enhance the learning process.

Name of learner	
Where employed	
Job title	
Contact details	
Reference material	Unit standard; learning material; own research

Formative assessment section - please answer the questions below in the space provided.

Practical Tasks	Task Type	Date Completed	Comments and initials of observer
Task No. 1	Identify and Explain computer architecture elements. OUTCOME RANGE Includes, but is not limited to: Virtual machine, Hardware, Software, Firmware, Functional levels within a computer (at least 3).		

Task 1

Task No. 2

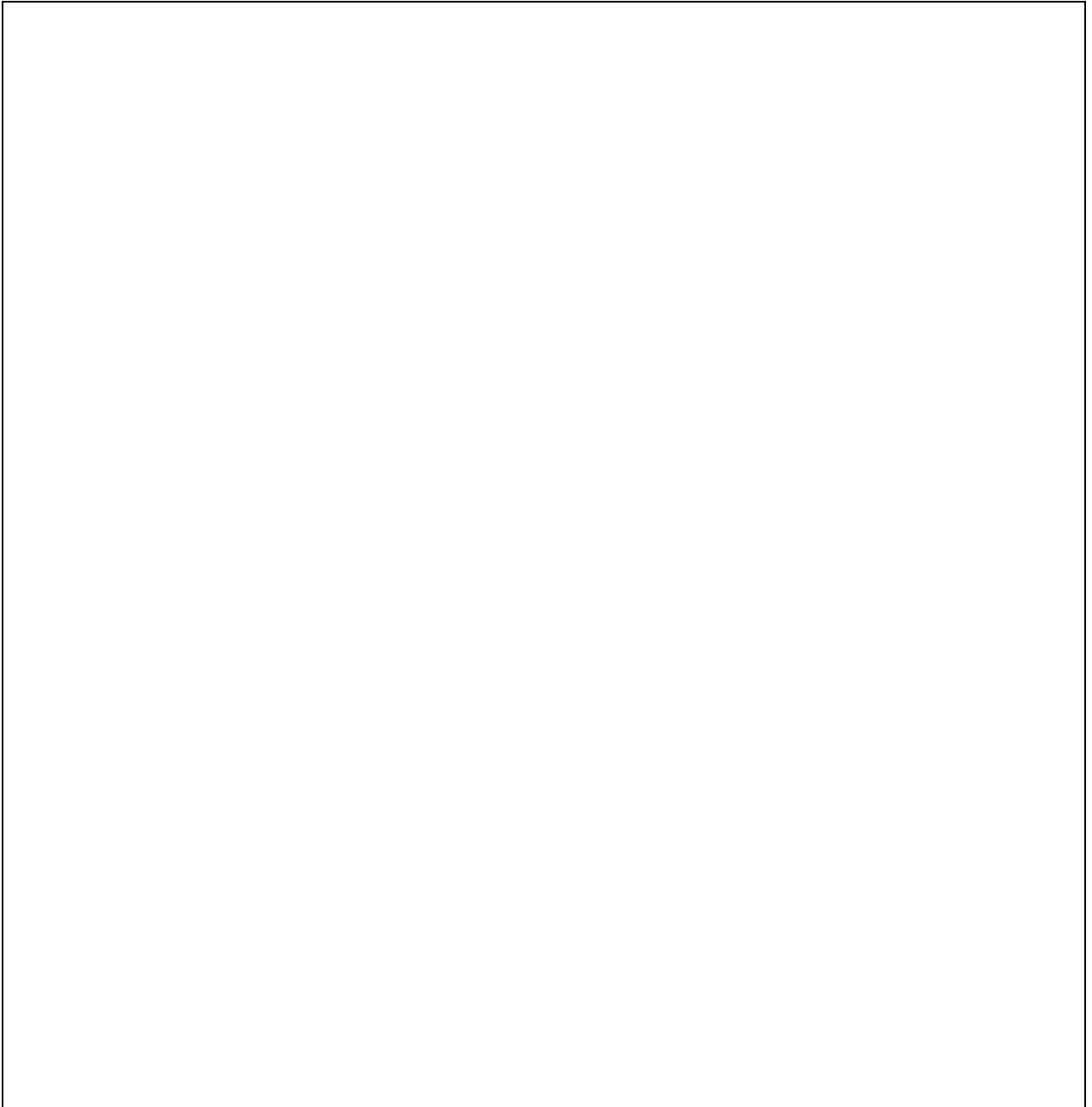
Identify and Explain the organisation of a computer.

OUTCOME RANGE

Includes, but is not limited to:
Motherboard, Power supply, Storage devices, CPU, Memory, PC Cards, BIOS, Battery, Cables and leads (at least 3).



Task No. 3	Identify and Describe the design constraints in the design of instruction sets for computers. OUTCOME RANGE Includes, but is not limited to: Instruction length, Memory transfer, Word length, Instruction format, Instruction fetch, Operand specification.		
------------	---	--	--



Score	%	Score	%	Score	%	Score	%
50	100%	48	96%	46	92%	44	88%
42	84%	40	80%	<40	Rem		

Result of formative assessment

Result of assessment	Meets criteria	Does not meet criteria
Venue		
Date		
Signature of learner		
Signature of facilitator		
Signature of assessor		
Remarks		

Result of summative assessment – Knowledge component

Result of assessment	Competent		Not yet competent	
Venue				
Date				
Signature of learner				
Signature of facilitator				
Signature of assessor				
Remarks				

Summative assessment - Job-related application

1. Title of learning programme: Keep the Dream basic computer usage skills
2. Unit standard ID 116932: Operate a personal computer system
3. All specific outcome and critical crossfield outcomes
4. The competency rating is 100%
5. Learners who do not achieve the competency rating will be given an opportunity to do a remedial assessment
6. Please complete the job-related assignments below for inclusion in the portfolio of evidence.
7. **Note:** The completed assignments must please be accompanied by the declaration of authenticity.

Percentage calculation to determine level of competency

Score	%	Score	%	Score	%	Score	%
50	100%	48	96%	46	92%	44	88%
42	84%	40	80%	<40	Rem		

Declaration of authenticity

I, [full names] _____

ID number: _____

Do hereby solemnly declare that this assignment is my own work. The following person was consulted for his/her input only:

Name:	
Capacity:	
Contact numbers	
Date:	
Witness Signature:	
Learner Signature:	

Witness testimony

Learner name	
Witness name	
Job title of witness	
Contact number of witness	
Witness relationship to learner	Colleague Other:

Learner instructions

1. Ask the person in your workplace environment to fill in this witness testimony and give it back to you.
2. Make sure the relevant names and signatures are filled in the spaces provided.
3. Insert page numbers on the witness testimony and include it in your portfolio of evidence.

Note to the witness

You have been requested to act as witness for the learner mentioned above. The learner has recently completed a training programme and would appreciate it if you could read through the report and provide honest feedback:

Witness testimony (continued)

Critical crossfield outcomes - Does the learner:	Y	N	Feedback
IDENTIFYING - Identify and solve problems in which responses display that decisions using critical and creative thinking have been made by identifying simple operating problems when operating a personal computer.			
ORGANISING - Organise and manage oneself and one's activities responsibly and effectively by understanding the personal computer operating system functions.			
COLLECTING - Collect, analyse, organise, and critically evaluate information by ensuring that personal computer configurations are operated and maintained in accordance with manufacturers' instructions.			
SCIENCE - Use science and technology effectively and critically, showing responsibility towards the environment and health of others by acting responsibly when operating and maintaining personal computer system.			

Signature		Date	
Witness name			

Signature		Date	
Learner name			

Signature		Date	
Assessor name			
COMPETENT		NOT YET COMPETENT	
MODERATOR			