



LECTURERS PLEASE COMPLETE THIS SECTION:

ACT

AICT 521

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Dear Faculty of Education Student

The NWU Management decided - due to the COVID-19 pandemic - that a **formative assignment** will replace the scheduled summative June 2020 examinations **for all electronic and paper-based first semester programmes**.

Students in the **ACT**: this **formative assessment** opportunity is to keep to the dates as communicated to you on the phasing out of these Programmes in June 2020.

Please answer the formative assignment according to instructions on page 2.

STUDENT INFORMATION

Mr/Ms, Surname & Initials: _____

Student number:

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Cell phone number:

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Learner Support Centre: _____

SUBMISSION DATE: PLEASE RETURN ON Click or tap to enter a date.

SUBMISSION METHOD:

Hard copy		UODL access and submission page	
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FINAL MARK AWARDED: % / 100

LECTURERS PLEASE COMPLETE THIS SECTION: Formative Assignment follows on p 3

STUDENTS PLEASE COMPLETE THIS SECTION:

MY DECLARATION ON PLAGIARISM

AICT 521

I, STUDENT NAME AND SURNAME

STUDENT NUMBER:

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hereby declare that this

*(Please mark with an **X** only **ONE** applicable item in the tick box)*

ASSIGNMENT	
PORTFOLIO	
OTHER (Please explain)	

is **my own**, original work.

I further declare that *(mark applicable block)*:

		YES	NO
1.	No part of it has been copied from another person.		
2.	I did not work with another person on the assignment.		
3.	I referenced all consulted literature sources in the text.		
4.	I added a List of References (NWU Referencing Guide).		
5.	Sections without references are my own ideas, arguments and conclusions		

I understand that I may be reported for academic misconduct and/or plagiarism and that a disciplinary hearing may be brought against me if this declaration is false.

SIGNED: DATE

English instructions to formative assignment:

1. Answer all questions.
2. Write neatly and legibly.
3. Number all questions as indicated.
4. Answer questions in the order as indicated.

QUESTION 1 **[15]**

- 1.1. Discuss the digital gap/divide in the South African context by referring to the following:
 - 1.1.1 Explain what the digital gap/divide is. (2)
 - 1.1.2 What can schools and teachers do to minimise the digital gap/divide?
Give at least three suggestions. (3)
- 1.2. The state president stated that the implementation of ICT in schools should improve.
 - 1.2.1 What does ICT stand for? (1)
 - 1.2.2 How can ICT can be implemented in schools? Give three examples. (3)
 - 1.2.3 Name three challenges for implementing ICT in schools in South Africa. (3)
- 1.3. Give three characteristics of an integrated approach of e-Education in the curriculum. (3)

QUESTION 2 **[40]**

- 2.1. The school governing body wants to implement a new computer lab at the school and you are part of the planning committee.
 - 2.1.1 Compile a SWOT analysis for the implementation of the lab and discuss the strengths, weaknesses, opportunities and threats of the implementing a new computer lab. Each time, discuss at least two aspects. (8)
 - 2.1.2 Make a drawing to show the layout of the computer lab. Clearly indicate all cables, electric sockets and electronic devices that will be used in the computer room. Also show where the windows and entrance to the lab are. (10)
 - 2.1.3 Give five guidelines for the room where the computer lab will be installed. (5)
 - 2.1.4 Compile a budget for operation costs of the computer lab for the next year. Budget for at least five items. Also indicate the total amount that needs to be budgeted for. (8)
 - 2.1.5 You need to make a poster for the computer lab to clearly show the rules of the lab.
 - a) Which software can be used to make the poster? (1)
 - b) Write down five rules for the computer lab that you want to put on the poster. The rules must specifically refer to protecting the equipment and ethical use thereof. (5)

2.1.6 Write down three possible uses for the computer lab. (3)

QUESTION 3 [13]

- 3.1 Explain Copyright, Piracy and Plagiarism in order to distinguish between the three terms. Also give a practical example of each, to show the correct procedures that a teacher should follow in order not to commit these offences. (6)
- 3.2 Explain what a computer virus is, and give one example of a computer virus. (2)
- 3.3 Give three suggestions how computers in a school setup can be safeguarded against computer viruses or other malware. (3)
- 3.4 Discuss two ways on how a teacher can prevent learners in class from accessing unethical or unauthorised web sites in class. (2)

QUESTION 4 / VRAAG 4 [10]

- 4.1 Give a critical discussion on the use of mobile devices in the class and the value thereof for teaching and learning. Take the following statement into account: “Do not plan for technology, plan for learning to take place”. (4)
- 4.2 Give two examples of mobile devices that can be used for teaching and learning. (2)
- 4.3 Design a lesson plan where mobile devices are integrated to facilitate teaching and learning. The following should be included in the lesson plan:
- 4.3.1 Mention the grade and the theme of the lesson. (1)
- 4.3.2 You need to plan a creative introduction to the lesson. Give an example of how you can use ICT to make the introduction interesting for the learners. (1)
- 4.3.3 Explain how the learners are going to use mobile devices during the lesson. (2)

QUESTION 5 / VRAAG 5 [22]

- 5.1 Which software will you use to do the following?
- 5.1.1 Make a presentation for a lesson. (1)
- 5.1.2 Compile a budget for the computer lab. (1)
- 5.1.3 Type tests and lesson plans. (1)
- 5.1.4 Find additional Internet resources for your lesson. (1)
- 5.1.5 Communicate electronically with the department of education. (1)
- 5.1.6 Manage files on the computer and maintain the computer. (1)
- 5.2 Which hardware component of a computer is used to do the following?
- 5.2.1 Display the output of software. (1)

- 5.2.2 Save tests and lesson plans. (1)
- 5.2.3 Provide input to the computer. (Name two components) (2)
- 5.2.4 Processes all commands. (1)
- 5.2.5 Temporarily keeps data, files and instructions until the computer is switched off. (1)
- 5.3 Discuss four aspects that need to be taken into account when evaluating web sites. (4)
- 5.4 Name two types of printers that can be used for educational purposes. Also give one characteristic of each printer that distinguishes it from the other printer. (4)
- 5.5 Explain the difference between a WAN and a LAN. (2)

TOTAL: [100]

Please page over for Afrikaans assignment.

Blaai asseblief om vir Afrikaanse opdrag.

Afrikaans instruksies vir formatiewe assessering:

- 1. Beantwoord alle vrae**
- 2. Skryf netjies en duidelik.**
- 3. Nommer alle vrae soos aangetoon.**
- 4. Beantwoord die vrae in die volgorde soos aangedui.**

VRAAG 1 [15]

- 1.1. Bespreek die digitale gaping in die Suid-Afrikaanse konteks, deur na die volgende te verwys:
 - 1.1.1 Verduidelik wat die digitale gaping is. (2)
 - 1.1.2 Wat kan skole en onderwysers doen om die digitale gaping te verklein?
Gee ten minste drie voorstelle. (3)
- 1.2 Die staatspresident het genoem dat die implementering van IKT by skole moet verbeter.
 - 1.2.1 Waarvoor staan IKT? (1)
 - 1.2.2 Hoe kan IKT by skole geïmplementeer word? Gee drie voorbeelde. (3)
 - 1.2.3 Noem drie uitdagings om IKT in skole te implementeer in Suid-Afrika. (3)
- 1.3. Gee drie kenmerke van 'n geïntegreerde benadering van e-Onderwys in die kurrikulum. (3)

VRAAG 2 [40]

- 2.1. Die skool se beheerliggaam wil 'n nuwe rekenaarsentrum by die skool implementeer en jy is deel van die beplanningskomitee.
 - 2.1.1 Stel 'n SWOT-analise saam vir implementering van die sentrum en bespreek die sterkpunte, swakpunte, geleenthede en bedreigings daarvan. Jy moet telkens ten minste twee aspekte bespreek. (8)
 - 2.1.2 Maak 'n skets om aan te toon hoe die rekenaarsentrum uitgelê kan word. Dui alle kables, kragpunte en elektroniese toestelle wat in die lokaal benodig gaan word, duidelik aan. Dui ook aan waar die vensters en ingang na die lokaal is. (10)
 - 2.1.3 Gee vyf riglyne vir die lokaal wat as rekenaarsentrum ingerig gaan word. (5)
 - 2.1.4 Stel 'n begroting op vir die bedryf van die rekenaarsentrum, vir die volgende jaar. Begroot ten minste vir vyf items. Toon ook die totale bedrag waarvoor begroot moet word. (8)
 - 2.1.5 Jy moet 'n plakkaat vir die rekenaarsentrum maak wat die reëls van die sentrum duidelik aantoon.
 - a) Watter sagteware kan gebruik word om die plakkaat te maak? (1)
 - b) Skryf vyf reëls vir die rekenaarsentrum neer wat jy op die plakkaat wil sit. Die reëls moet spesifiek verwys na beskerming van die toerusting en die etiese gebruik daarvan. (5)

2.1.6 Skryf drie moontlike gebruike van die rekenaarsentrum neer. (3)

VRAAG 3 **[13]**

- 3.1 Verduidelik wat Kopiereg, Programmatuurroof en Plagiaat is, om tussen die terme te onderskei. Geen dan 'n praktiese voorbeeld van elk, om die korrekte prosedures aan te toon wat 'n onderwyser moet volg om nie die oortredings te begaan nie. (6)
- 3.2 Verduidelik wat 'n rekenaarvirus is en gee een voorbeeld van 'n rekenaarvirus. (2)
- 3.3 Gee drie voorstelle van hoe rekenaars in 'n skoolomgewing beveilig kan word teen rekenaarvirusse of ander skadelike programmatuur. (3)
- 3.4 Bespreek twee maniere hoe onderwysers leerders kan verhoed om onetiese of ongemagtigde webtuistes in klas te besoek. (2)

VRAAG 4 **[10]**

- 4.1 Gee 'n kritiese bespreking van die gebruik van mobiele toestelle in die klas en die waarde daarvan vir onderrig en leer. Neem die volgende stelling in ag: "Moenie vir tegnologie beplan nie, beplan vir leer om plaas te vind". (4)
- 4.2 Gee twee voorbeelde van mobiele toestelle wat gebruik kan word vir onderrig en leer. (2)
- 4.3 Ontwerp 'n lesplan waar mobiele toestelle vir die fasilitering van onderrig en leer geïntegreer word. Die volgende moet in die lesplan ingesluit word:
- 4.3.1 Noem die graad en die tema van die les. (1)
- 4.3.2 Jy moet 'n kreatiewe inleiding vir die les beplan. Gee 'n voorbeeld van hoe jy IKT kan gebruik om die inleiding interessant te maak vir leerders. (1)
- 4.3.3 Verduidelik hoe die leerders mobiele toestelle gedurende die lesfase gaan gebruik om die lesdoelwitte te bevredig. (2)

VRAAG 5 **[22]**

- 5.1 Watter sagteware gaan jy vir elk van die volgende gebruik:
- 5.1.1 Maak 'n voorlegging vir 'n les. (1)
- 5.1.2 Stel 'n begroting vir die rekenaarsentrum op. (1)
- 5.1.3 Tik toetse en lesplanne. (1)
- 5.1.4 Vind addisionele bronne op die Internet vir jou les. (1)
- 5.1.5 Kommunikeer elektronies met die departement van onderwys. (1)
- 5.1.6 Bestuur die rekenaar en lêers op die rekenaar en hou die rekenaar in stand. (1)
- 5.2 Watter hardeware komponent word gebruik vir elk van die volgende:

- 5.2.1 Vertoon die afvoer van sagteware. (1)
- 5.2.2 Stoor toetse en lesplanne. (1)
- 5.2.3 Gee toevoer aan die rekenaar. (Noem twee komponente.) (2)
- 5.2.4 Verwerk alle instruksies. (1)
- 5.2.5 Hou data, lêers en instruksies tydelik tot die rekenaar afgeskakel word. (1)
- 5.3 Noem vier aspekte wat in ag geneem moet word wanneer webtuistes evalueer word. (4)
- 5.4 Noem twee tipes drukkers wat vir onderwys doeleindes gebruik kan word. Noem ook een eienskap van elke drukker wat dit van die ander drukker onderskei. (4)
- 5.5 Verduidelik wat die verskil tussen 'n LAN en 'n WAN is. (2)

TOTAAL: [100]