



UNIVERSITY OF JOHANNESBURG
FACULTY OF EDUCATION
MAY / JUNE
EXAMINATION 2016

PROGRAMME: B Ed
MODULE: Methodology and Practicum: Support Role School ICT 3A
CODE: MOFPIA3
TIME: 2 hours
MARKS: 100
EXAMINER: Prof G Lautenbach
MODERATOR: Dr. R Diseko

(This paper consists of 4 pages)

INSTRUCTIONS

Read the following instructions carefully before answering the questions:

1. This examination is taken in a computer venue. All questions are to be completed using the indicated computer software tools. No handwritten answers may be submitted.
2. Answer all the questions.
3. You are strongly advised to save the files that you are working on at regular intervals as to minimise the effect of computer malfunctions. For this purpose, you may access an online file repository system (for example *Drop Box* or *Google Drive*) and temporarily store your files there.
4. Attach all completed files using the link "Submit Exam Files" in the ULink online environment.
5. Answer Questions 1 and 2 in an MS-Word document and Question 3 in an MSExcel document.
6. You may use the Internet but be aware of time constraints please.

QUESTION 1 (Save Question 1 and 2 together as one file)

Visual information can be presented in a multitude of ways using digital media. Two popular forms are *Infographics* and *Word Clouds*.

- 1.1 Tabulate the main differences between *Infographics* and *Word Clouds*. (8)
 - 1.2 List seven possible ways to use *Word Clouds* as a teaching and learning aid in the classroom. Make use of suitable examples to illustrate the appropriateness of use. (14)
 - 1.3 Create a *Word Cloud* with a suitable online application using the contents of this examination paper. Insert an image of the created *Word Cloud* in a text box in the correct space provided. (7)
 - 1.4 Provide a brief summary of the history of *Infographics* in the classroom. (3)
 - 1.5 Identify one free online tool that can be used to create an *Infographic* and write a short review this particular tool. (6)
 - 1.6 Name two other popular ways to present information as visual data. (2)
- (40)**

QUESTION 2 (Save Question 1 and 2 together as one file)

- 2.1 What is the difference between learning activities and learning design? (6)
 - 2.2 Clarify the concept "Connectivism" by providing the following:
 - 2.2.1 A short description
 - 2.2.2 Big trees (well-known figures/theorists in the field)
 - 2.2.3 An appropriate image (6)
 - 2.3 What is the value proposition of using Open Educational Resources (OER's) in the South African context? (4)
- (16)**

QUESTION 3

Scenario: At some stage in your career as an educator you will have to create a document to organize and order your class and their marks for a variety of assessment items or you may have to help another teacher in your role as ICT Support specialist.

- 3.1 Copy and paste the following data in the table below (next page) into a blank MSExcel worksheet. (Use the electronic exam copy provided - If you cannot do this you will have to re-type all of the data.) (2)

Surname	Name	Gender	age	Test1/100	Test2/100	Test3/100	Ass1/50	Ass2/50
Diseko	Bruce	M	15	75	72	52	43	23
Fourie	Hano	M	15	63	61	77	35	45
Khumalo	Gideon	M	14	82	85	35	26	46
Best	Geoff	M	14	57	42	74	45	43
Mandela	Simphiwe	M	15	62	67	71	34	36
Maseko	Sbo	F	15	47	69	53	25	37
Mbeki	Vincent	F	13	35	70	57	36	38
Shangu	Thabile	F	16	55	62	75	39	34
Sithole	David	M	14	62	74	65	41	22
Sithole	Lindiwe	F	15	71	83	76	34	50

- 3.2 Insert a new column (use column A) and number the existing students (1-10). (2)
- 3.3 Make all the headings of the columns *italics* and then make them **bold**.
Now center the headings in the columns. (3)
- 3.4 Format the column headings so that they are almost vertical at 85°. Now you can re-size the columns to save a bit of space and fit all columns onto one page. Format the column widths so that all of the columns with marks are the same width. (3)
- 3.5 Calculate the average mark out of 100 for the three tests for each students using a formula (first insert a new column after test 3). Insert a new column after assignment 2, add the title "Ass ave" in the new column and calculate the *assignment mark* for each learner out of 100. (4)
- 3.6 Calculate a final mark out of 100 in a new column using the test average and the assignment average. (2)
- 3.7 Place borders around all the cells containing data. (2)
- 3.8 Calculate (in one row at the bottom of the sheet) the *average age of the learners* **and** the *class averages for each assessment item*. (2)
- 3.9 Use a formula to calculate how many learners have a final mark above 50%. Remember to add the words "final mark above 50%" next to your answer to show where it is. (2)
- 3.10 Use the max and min formulas to calculate the highest and lowest final mark. (2)
- 3.11 Colour the cells of the test average column light pink. (1)

- 3.12 Make the marks in the final mark column red (not the cells). (1)
- 3.13 Now sort the students alphabetically according to surname. Make sure that you can sort all data for each learner and not only the names. Re-name the tab at the bottom of the screen "**alphabetical**". (3)
- 3.14 Copy the whole spreadsheet onto a new sheet (new tab). Re-name the new tab "**Sort**". (3)
- On the sheet named "Sort", do the following:*
- 3.15 In "Sort", use Data-Sort to *separate the boys from the girls*. The boys and the girls must then be sorted from *lowest to highest average* (Boys on top please). (4)
- 3.16 Insert two blank rows between the boys' marks and the girls' marks. (1)
- 3.17 Sometimes it is easier to see relationships and trends better using visual tools like charts... Use the chart wizard to make a line graph/chart to compare all test marks (test 1,2, and 3) for the **boys only**. Format your graph to include title and labels for axes. Save the graph as a new sheet called "Tests". (6)
- 3.18 Save the file as Your_surname.xls (eg. Tshabalala.xls). (1)

(44)

TOTAL: 100

Now upload all saved questions to the correct place in ULink