



DEDAN KIMATHI UNIVERSITY OF TECHNOLOGY

University Examinations 2015/2016

THIRD YEAR SEMESTER 1 EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN CIVIL ENGINEERING, GEOSPATIAL INFORMATION SCIENCE & REMOTE SENSING AND GEOMATICS & GEOSPATIAL INFORMATION SYSTEMS

CIT 2108 / SMA 2174: INTRODUCTION TO COMPUTER SCIENCE

DATE: 14TH DECEMBER, 2015

TIME: 1.30PM-3.30PM

Instructions: Answer Question 1 and Any Other Two.

Question 1: (30 Marks)

- a) State at least **FOUR** categories of ROM (2 marks)
- b) Outline **FOUR** Outstanding differences between RAM and ROM (2 marks)
- c) Explain the **FOUR** main functions of a computer (4 marks)
- d) With the aid of suitable examples, explain the difference between the following
 - (i) Operating system and application software (4 marks)
 - (ii) Input devices and Output devices (4 marks)
- e) An operating system is necessary system software in a computer. Explain any **FOUR** functions of an operating system (4 marks)
- e) (i) Distinguish between positional and non – positional numbers systems (4 marks)
- (ii) Change the following binary numbers to decimal numbers: (3 marks)
 - a. 10111010
 - b. 01101101
 - c. 11101011
- ii) Change the following decimal numbers to binary numbers: (3 marks)
 - a. 249
 - b. 82
 - c. 115

Question 2: (20 Marks)

- a) You have been requested by the head of your department to write letters to all the students who failed the exams informing them of the date of the supplementary exams and the subjects they are to re-sit. State at least **FOUR** fields you will include in the letter. (2 marks)
- b) Explain the functions of the following keyboard keys; (3 marks)
- (i) Special
 - (ii) Navigation / Position
 - (iii) Function
- c) Distinguish between Header and Footer (2 marks)
- d) Explain four key features of a word processor (4 marks)
- e) The figure below is an extract from a word processing document. Use it to answer the questions that follow.

Audioconferencing

Also known as conference calling, this is audio-only interaction via telephone. **Why use it?**

While the tool is primary used for ~~conferencing~~, meetings and project updates, training that utilizes audio conferencing can achieve impressive results. Since it is inexpensive and readily available, most organizations can easily implement **synchronous** training this way.

But although it is often overlooked as a limited, low technology option, the form has undergone something of a renaissance recently- driven by easy access for mobile workers (through cell phone) and call MANAGEMENT options, and the lure of quickly repurposing recording calls as downloadable podcast.

- i) Identify **TWO** text formatting features applied in the extract (2 marks)
- ii) Explain **TWO** paragraph formatting features applied in the extract (2 marks)
- iii) Describe the process of creating the heading as shown above (5 marks)

Question 3: (20 Marks)

- a) Outline the functions of the following keyboard short cuts (4 marks)
- i) Ctrl + S
 - ii) Ctrl + Home
 - iii) Ctrl + V

- iv) Ctrl + Alt + Delete
- b) Jeremy, an office administrator at Fair Drycleaners, would like to buy software for their customers care services. Explain **FOUR** factors that he would consider when choosing the software **(4 marks)**
- c) Explain the purpose of the following elements in Ms excel window: **(2 marks)**
- Fill Handle
 - Ribbon
- d) Use the diagram below to answer the question that follows

	A	B	C	D	E	F	G
1	Beds R Us						
2	Data for Orders						
3	Number of Units	Item	Supplier	Unit Price	Total Order	Volume Discount	Discounted Total
4	250	King	Costas Man	\$425.00		\$ 1,000.00	
5	88	Queen	Her Court	\$395.00		\$ 950.00	
6	123	Twin	Her Court	\$300.00		\$ 875.00	
7	25	Deluxe	Carib Furniture	\$505.00		\$ 700.00	
8	10	Full	Costas Man	\$275.00		\$ 300.00	
9	38	Bunk	Carib Furniture	\$250.00		\$ 250.00	
11						Overall Total	
12						Maximum Units	
13						Minimum Units	
14						Mean Units	

List the correct formulas for cells:

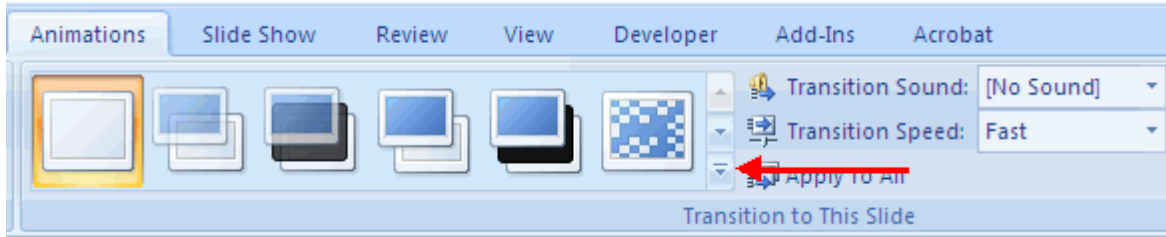
(4 marks)

- G11
 - G12
 - G13
 - G14
- e) Describe **THREE** ways used in creating a new presentation outlining the steps used in each **(6 marks)**

Question 4: (20 Marks)

- a) Explain the functions of the following parts of windows XP desktop **(3 marks)**
- Notification area
 - Drive
 - Desktop

- b) Outline the **FOUR** options for printing a presentation (4 marks)
- c) Name the slide effect indicated by the arrow in the figure below and outline steps in creating the effect (2 marks)



- d) Explain the importance of a primary key in a database (2 marks)
- e) Explain the functions of the following data types used in a database (5 marks)
- i) Text
 - ii) Memo
 - iii) Number
 - iv) Date/Time
 - v) Currency
- f) Differentiate between Slide Animation and Slide Transition as used in Microsoft PowerPoint outlining the steps in creating each. (4 marks)

Question 5: (20 Marks)

- a) Define the following terms as used in databases (4 marks)
- i) Field
 - ii) Table
 - iii) Record
 - iv) Database
- b) Differentiate between a query and a report. (2 marks)
- c) The Table below shows student details in a database. Use it to answer the questions that follow:

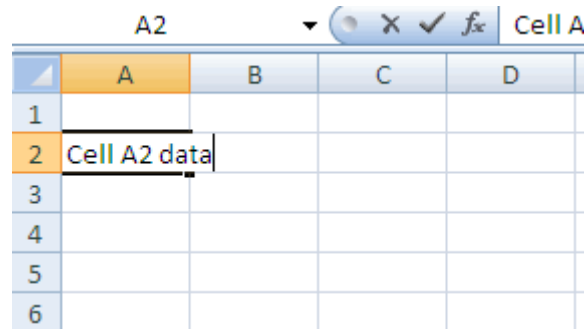
Admno	Name	Sex	Course	Balance(kshs)
C20/234	JAMES	Male	Diploma In ICT	2500
E23/056	MARY	Female	Diploma in Electronics	5500
H12/125	JOHN	Male	Diploma in Hospitality	2300
H12/278	JAMES	Male	Diploma in Hospitality	3200
C20/239	JUDY	Female	Diploma in ICT	8500

Students Table

Outline steps that would be used to carry out the following:

- i) Create a form for the table above (2 marks)

- ii) Create a query in Design View of all students whose balance range from 3,000 and 5,000 (4 marks)
- d) Identify and explain each type of cell reference used below:
- i) \$A\$11 (2 marks)
 - ii) A11 (2 marks)
 - iii) A\$11 (2 marks)
- e) The figure below shows a cell containing data.



The image shows a screenshot of an Excel spreadsheet. The active cell is A2, which contains the text "Cell A2 data". The spreadsheet has columns A, B, C, and D, and rows 1 through 6. The cell A2 is highlighted with a blue border. The formula bar at the top shows "Cell A2 data".

	A	B	C	D
1				
2	Cell A2 data			
3				
4				
5				
6				

Explain the **TWO** ways that can be used to enter data in an Excel spreadsheet as shown above (2 marks)