



Kasarani Campus

Off Thika Road  
Tel. 2042692 / 3

P.

O. Box 49274, 00100

NAIROBI

Westlands Campus  
Pamstech House  
Woodvale Grove  
Tel. 4442212  
Fax: 4444175

**KIRIRI WOMEN'S UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**UNIVERSITY EXAMINATION, 2023/2024 ACADEMIC YEAR**  
**FIRST YEAR, SECOND SEMESTER EXAMINATION**  
**FOR THE DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY**  
**DIT 1008 – COMPUTER APPLICATIONS II**

Date: 10<sup>TH</sup> AUGUST 2023  
Time: 2:30PM – 4:30PM

**INSTRUCTIONS TO CANDIDATES**

**ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS**

**QUESTION ONE (30 MARKS)**

- a) Baraka architectural firm is considering implementing Computer Aided (CAD) software for their design process.
- Analyze and discuss Four advantages of using CAD in architectural design. (4 Marks)
  - Discuss Three challenges that Baraka Architectural firm is likely to encounter in the process of using the CAD software. (3 Marks)
  - Using relevant examples explain any Four uses of the CAD software. (4 Marks)
- b) You are the cost accountant of Meghan Enterprises. Explain how you would ensure that the company logo is included on the annual financial report. (6 Marks)
- c) "If" is a logical function that returns a specified value of a condition if evaluated and found to be true and another value if evaluated otherwise. As an accountant after analyzing your sales in four branches in the first quarter of a given year illustrate how you can use the "if" function to generate appropriate remarks for each branch given the following conditions. (5 Marks)

Average monthly sales	Remark
Below 10,000	Poor
10,001 - 20,000	Average
20,001 - 30,000	Good
40,001 - 50,000	V Good
Above 50,001	Excellent

- d) Pemba is a natural resource management agency that wants to leverage Geographical Information System technology for environmental conservation.
- Investigate the application of Geographical Information System (GIS) in natural resource management, such as mapping ecosystems, analyzing habitat suitability, and monitoring changes in land cover. (4 Marks)
  - Discuss the benefits of using Geographical Information System (GIS) for sustainable resource

planning, conservation strategies, and environmental impact assessment.  
(4 Marks)

### **QUESTION TWO (20 MARKS)**

- a) Akiba customer Service Company is interested in deploying Artificial Intelligence powered Chabot's for customer support.
- i) Discuss Five advantages of Artificial Intelligence in customer service support. (5 Marks)
  - ii) Explain Five disadvantages that Akiba customer Service Company is likely to encounter. (5 Marks)
- b) Mr Kosgey is the human resource manager for Manpower group of companies. He would want to analyze the employee's data using Microsoft Excel.
- i) Using 5 examples, explain the capabilities of Excel for organizing and analyzing employee information, such as payroll data, attendance records, and performance metrics. (5 Marks)
  - ii) Using 5 relevant examples, discuss how Microsoft Excel's data manipulation features, such as sorting, filtering, and pivot tables, can be used to extract insights and make informed HR decisions. (5 Marks)

### **QUESTION THREE (20 MARKS)**

- a) Mr Menja is a project manager of Mercer corporations. He intends to needs to create a project schedule using Microsoft Excel.
- i) Discuss Five methods and tools available in Excel for creating Gantt charts and for tracking project timelines. (5 Marks)
  - ii) Using Five examples, explain how Microsoft Excel can be used to allocate resources, calculate project durations, and monitor progress. Provide recommendations on utilizing Excel effectively for project management purposes (5 Marks)
- b) Maple Brook Limited is a company that specializes in real estate. It has been using manual accounting processes for several years. They are considering transitioning to a computerized accounting system.
- i) Identify and discuss 5 uses of a computerized accounting for the company. (5 Marks)
- c) When entering data in an excel worksheet a first year student at Kiriri Women's University of Science and Technology observed the error ##### in a cell.
- i) Identify the error and suggest how it can be corrected. (5 Marks)

### **QUESTION FOUR (20 MARKS)**

- a) A manufacturing company wants to optimize their product development process. Assess the application of CAD in product design and engineering.
- i) Discuss how CAD software can facilitate 3D modeling, prototyping, simulation, and documentation. (5 Marks)
  - ii) Illustrate the advantages of CAD in terms of cost reduction, time savings, design iteration, and product innovation. (5 Marks)
- b) Muungano financial institution wants to explore the application of Artificial Intelligence in fraud

detection and risk assessment.

- i) Investigate the purpose and advantages of Artificial Intelligence in the financial industry, such as automated fraud detection algorithms, predictive analytics, and algorithmic trading. (5 Marks)
- ii) Discuss the potential benefits of Artificial Intelligence in minimizing financial losses, enhancing customer security, and optimizing investment strategies. (5 Marks)

**QUESTION FIVE (20 MARKS)**

- a) Jenga architectural firm wants to modify the floor plan of a building design.
  - i) Discuss Five factors of the modeling transformations that can be applied using Computer Aided Design software to achieve this modification. (5 Marks)
  - ii) Explain Five instructions on how to perform the modeling transformations using Computer Aided Design software and illustrate the impact of each transformation on the floor plan. (5 Marks)
  
- b) Using the Spreadsheet below, answer the following questions;

	A	B	C	D	E	F
1	<b>Names</b>	<b>Business Adm</b>	<b>Ict 2</b>	<b>Accounts</b>	<b>Total</b>	<b>Average</b>
2	Christine Kamau	44	45	35		
3	Anne Nekesa	70	55	85		
4	Edwin Namasaka	27	34	45		
5	Abdi Rotich	67	80	65		
6	Sylvia Anyango	80	25	34		

- i) Describe how to enter the following in a Spread sheet and save as Students marks. (2 Marks)
- ii) Describe how to make the first row to have a text orientation of 45°. (3 Marks)
- iii) Using a formula find the total and average of each student- (3 Marks)
- iv) Describe how to draw a bar chart, with appropriate titles for the above. (2 Marks)