DIPLOMA IN DATA MANAGEMENT AND ANALYTICS (DDMA)

DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINISTRATION (DCNSA)

LEVEL I

COMPUTER INFORMATION SYSTEMS APPLICATIONS

THURSDAY: 4 December 2025. Afternoon Paper.   **Time Allowed: 3 hours.**

This paper has two (2) sections. SECTION I has thirty (30) Multiple Choice Questions of thirty (30) marks. SECTION II has five (5) practical questions of seventy (70) marks. Answer ALL questions. Marks allocated to each question are indicated in the question.

SECTION I (30 MARKS)

1.   A company wants to ensure that confidential files cannot be accessed even if someone obtains the storage device. Compared to basic file password protection, which feature provides stronger security?
      A.   Encryption converts data into an unreadable form
      B.   Encryption hides the file size
      C.   Encryption prevents file deletion
      D.   Encryption makes files smaller   (1 mark)

2.   An employee needs to share a document with clients and ensure that the formatting and layout remain exactly the same on all devices. Which one of the following file formats should be used?
      A.   .txt
      B.   .html
      C.   .pdf
      D.   .rtf   (1 mark)

3.   While editing a document, a user wants to quickly reverse the most recent formatting change. Which one of the following keyboard shortcuts should be used?
      A.   Ctrl + X
      B.   Ctrl + C
      C.   Ctrl + Z
      D.   Ctrl + V   (1 mark)

4.   A user is reviewing a Microsoft Word document and wants to automatically identify spelling mistakes as they type. Which one of the following features should be used?
      A.   Grammar Check
      B.   Spell Check
      C.   Autocorrect
      D.   Track changes   (1 mark)

5.   An organisation wants to send personalised letters to multiple recipients using a single document. Which Microsoft Word feature should be used?
      A.   Macros
      B.   Templates
      C.   Emails
      D.   Mail Merge   (1 mark)

6. A user wants to reduce the size of several files for easier sharing and storage. Which file extension is most commonly associated with compressed files?
   A. .cmp
   B. .txt
   C. .zip
   D. .avi (1 mark)

7. In Microsoft Excel, a user notices a cell reference written as A1. What does the dollar sign ($) in this reference indicate?
   A. It makes the reference absolute
   B. It highlights errors
   C. It's a currency format
   D. It makes the reference relative (1 mark)

8. A presenter wants to display only selected slides from a large PowerPoint presentation to a specific audience. Which one of the following features should be used to achieve this?
   A. To apply global formatting
   B. To run animations in order
   C. To reuse slides from another presentation
   D. To create different versions of a presentation from selected slides (1 mark)

9. A technical trainer presenting to key decision makers wants to change the sequence of slides in a PowerPoint presentation. Which view should be used to easily rearrange the slides?
   A. Slide Show
   B. Slide Sorter
   C. Presenter View
   D. Reading View (1 mark)

10. In a database, a designer wants to create a relationship between two tables to ensure data consistency. Which key is used to link records from one table to another?
    A. A calculated field
    B. The key used to sort records
    C. A unique identifier for the table
    D. A primary key in another table (1 mark)

11. A graphic designer is preparing a document for professional printing and wants to ensure that images or colours extend to the very edge of the page after trimming. Which area of the page layout should be adjusted to achieve this?
    A. Safe zone
    B. Margin
    C. Bleed
    D. Gutter (1 mark)

12. A financial analyst wants to explore how changing certain input values will affect the results in an Excel model. Which one of the following tools should be used to perform this type of "what-if" analysis?
    A. Goal Seek
    B. Flash Fill
    C. Data Validation
    D. Conditional Formatting (1 mark)

13. A user has created a chart in Excel and wants it to update automatically whenever the source data is modified. Which feature enables this functionality?
    A. SmartArt
    B. Static Chart that is indexed
    C. Pivot Table
    D. Dynamic chart with table reference (1 mark)

14. An employee wants quick access to shared files stored on a company server through File Explorer. Which action should be performed to create a shortcut to the shared network location?
    A. Encrypts all files on a drive
    B. Creates a shortcut to a folder located on another computer
    C. Formats a hard disk
    D. Installs new networking hardware (1 mark)

15. In Microsoft Access, a user wants to organise and store raw information such as names, dates and numbers. The primary object that is used to hold this data is _____.
    A. queries
    B. report
    C. forms
    D. tables (1 mark)

16. A finance officer wants to automate repetitive checks using spreadsheets so that formulas and their results can be tested step-by-step without manually re-entering inputs each time. Which one of the following tools should he use?
    A. Macros
    B. Data Validation
    C. Formula Auditing
    D. Goal Seek (1 mark)

17. Mary a designer is creating queries in Microsoft Access to combine data from multiple tables. Which one of the following is not a valid type of join?
    A. Inner join
    B. Right Outer join
    C. Full Outer Join
    D. Left Outer Join (1 mark)

18. Your Colleague wants to combine multiple shapes in a PowerPoint slide to create a custom graphic. This can be achieved by_____.
    A. creating custom shapes by combining two or more
    B. grouping and lock slide elements
    C. applying filters to images
    D. blending image backgrounds (1 mark)

19. An employee wants to protect their organisation from phishing attacks, such as fraudulent emails attempting to steal login credentials. Which measure is **MOST** effective in reducing this risk?
    A. Strong passwords
    B. Firewall
    C. Intrusion detection
    D. Two-factor Authentication (1 mark)

20. A user needs to review two versions of a Microsoft Word document to see what changes have been made. Which feature should be used to compare the documents?
    A. Track Changes
    B. Find and Replace
    C. Index Match
    D. Vlookup (1 mark)

21. A desktop publisher wants to ensure that logos, headers and page numbers appear consistently on every page of a document. Which one of the following features should be used to achieve this?
    A. Slide Master
    B. Template
    C. Master Page
    D. Macro (1 mark)

22. While working in Microsoft Excel, a user wants to see and edit the contents of the currently selected cell. Where is this information displayed?
    A. Name box
    B. Formula bar
    C. Title bar
    D. Status bar (1 mark)

23. A company discovers that some software is being copied and used without proper licensing. What is this illegal activity called?
   A. Counterfeiting
   B. Plagiarism
   C. Backup
   D. Piracy (1 mark)

24. An office worker needs to print documents directly from their computer. Which action should they perform to make the printer ready for use?
   A. Install the printer software and connect it to the computer
   B. Open a spreadsheet application and enter data manually
   C. Run a disk cleanup utility to free up system space
   D. Encrypt the files before attempting to print them (1 mark)

25. A smartphone user notices that the device predicts and suggests words while typing messages. Which technology provides this functionality?
   A. Voice recognition system that converts speech to text
   B. Screen mirroring technology that duplicates the display
   C. Cloud backup service that stores user messages online
   D. Autocomplete software that predicts text input on the device (1 mark)

26. A user wants to send a password-protected file via email. Why is it unsafe to share the file password without using encryption?
   A. Email systems will reject the password
   B. Passwords are automatically blocked in email
   C. Emails can be intercepted, exposing the password to attackers
   D. The file will be locked permanently (1 mark)

27. An organisation wants employees to access shared files, printers and applications efficiently. What is the advantage of using network resources?
   A. To reduce electricity bills
   B. Eliminate the need for regular software updates
   C. Allows computers to work without operating systems
   D. Enables sharing of data, applications and hardware (1 mark)

28. A user wants to insert the same text or content in multiple parts of a document without typing it repeatedly. Which feature should be used to achieve this?
   A. Text Box
   B. Bookmark
   C. SmartArt
   D. Quick Parts (1 mark)

29. A user is creating files on a Windows computer and wants to follow proper naming conventions. Which one of the following is **NOT** a valid rule for naming files?
   A. A file name can include spaces
   B. A file name cannot exceed 255 characters
   C. A file name can include special characters such as * %? |
   D. A file name can have both lower- and upper-case letters (1 mark)

30. A database designer wants to organise data efficiently to reduce redundancy and ensure consistency. This process in a database design entails _____.
   A. structuring a database
   B. copying tables into another database
   C. creating backup copies
   D. applying form styles (1 mark)

31.   Using Desktop Publishing software, design a poster for the event below.

Event organisers:	Men of Valor
Event Name:	Wealth Wisdom: Be a steward of your Wealth
Dress code:	Touch of Gold
Venue:	ABC Resort
Date:	12th December 2025
Time:	9:00 am to 4:00 pm
RSVP to:	+254 723 123 456

Required:
Make it elegant and insert an image of your choice.

Capture screenshots to demonstrate steps you have taken to design the publication. Save the screenshots in a document called "Question 31 screenshots" and upload.

Save and upload the final image of the poster as "Question 31 image" and upload.   **(Total: 10 marks)**

32.   Create a word processing document called "Question 32" and use it to answer questions below.

Use the information below to answer the questions that follow:

THE LAW OF WEALTH CIRCULATION
Wealth grows as it flows. The more freely you give and receive, the more the river of abundance multiplies in your life.

Understanding the Law of Wealth Circulation
Wealth is not meant to be hoarded; it is meant to flow. Just as blood must circulate in the body for life to thrive, money must circulate in the economy of your life for prosperity to flourish. This is the essence of the Law of Circulation.

When money, resources and opportunities move freely, they multiply. When they are withheld in fear, they stagnate, lose value and block new inflows. The universe operates on rhythm and flow, not on stagnation.

Many live in scarcity because they cling tightly to what little they have. While wise stewardship is necessary, fear-driven hoarding cuts off the very supply they desire. Prosperity begins when you release with trust, give with love and allow circulation to return multiplied.

Principles of Circulation in Wealth Creation
To practice the Law of Circulation, you must engage with wealth in motion. Here are three core principles:

1.   *Giving Opens the Flow*
       Generosity is the engine of circulation. When you give—whether money, resources, time or kindness—you set in motion a spiritual current that ensures something greater comes back to you. Giving is not losing; it is sowing.
2.   *Receiving with Gratitude*
       Circulation is incomplete without receiving. Many repel blessings because they are uncomfortable receiving. Every inflow is a sign of divine favor—whether it comes as a gift, a business deal, or unexpected provision. Receiving gratefully keeps the flow alive.

3.   *Releasing Fear of Loss*
       The fear of losing money creates contraction and contraction stops circulation. Trust is essential. Money is energy, it must move. When you release it with faith, it finds its way back with friends.

Required:
(a)   Type the above text in a Word processing application and save it as "Question 32". Format the title "THE LAW OF WEALTH CIRCULATION" to be font size 14, BOLD and "Centered".   (8 marks)

(b)   Capture a screenshot of the word count statistics for the entire document.   (2 marks)

(c)   Change the numbers in the Principles of Circulation in Wealth Creation from numbers to bullets.   (2 marks)

(d)   Insert a table at the end of the document with the details below: (3 marks)

Summary of Circulation in Wealth Creation	
1. Give	Give generously
2. Receive	Receive comfortably
3. Release	Release with faith it will come back

(e)   Capture a screenshot of how you will find the word "motion" and replace it with "flow" across the entire document.   (2 marks)

(f)   Insert a footer at the end of the document and enter your registration number and the date and time to be updated automatically.   (3 marks)

Save "Question 32" document and upload.   **(Total: 20 marks)**

33.   Create a Blank database and save it as "Question 33".

Required:
(a)   In the database you have created, design a table named "STUDENTS" with the fields below and set an appropriate datatype for each field.   (3 marks)

Field Names
Student ID - **Short text/Autonumber—Primary Key**
Student Name - **Short text**
Course - **Short text**
Year Joined **- Number /Integer**
Fees Paid - **Currency**

(b)   Populate the Students file with the details below.   (2 marks)

STUDENTS				
Student ID	**Student Name**	**Course**	**Year Joined**	**Fees Paid**
S001	John Karanja	CPA	2024	28,000
S002	Janet Njeri	DDMA	2025	32,000
S003	Mohammed Juma	CPA	2023	43,000
S004	May Doe	DDMA	2020	23,000
S005	Anthony Paul	DDMA	2025	34,000

(c)   Create a query named "Outstanding_Fees" to calculate and display a new field called Balance, assuming the Total Fees for every course is 50,000.

Display Student Name, Course, Fees Paid and Balance in the results.   (5 marks)

Save "Question 33" and upload.   **(Total: 10 marks)**

34.   Create a workbook named "Question 34" containing the details in the table below.

Receipt No	Sales Person	Region	Product	Quantity	Unit Price	Total Sales
R001	Jane	Nairobi	Laptops	10		
R002	Peter	Mombasa	Printers	5		
R003	Alice	Kisumu	Laptops	8		
R004	James	Nairobi	Desktops	6		
R005	Grace	Mombasa	Laptops	12		
R006	Brian	Kisumu	Printers	4		

Required:
(a)   Use VLOOKUP function to enter the Unit Price for each product using the price list below: (3 marks)

Product	UnitPrice
Laptops	50,000
Printers	20,000
Desktops	40,000

(b)   Calculate the Total Sales.   (2 marks)

(c)   Use a Pivot table to calculate the Total Sales per region.   (3 marks)

(d)   From the pivot table results, insert a pie chart to compare the Total Sales per region.   (3 marks)

(e)   Use IF statement to calculate the amount of commission given to each employee using the information below: (3 marks)

If Total Sales is Above or Equal to 500,000 = 10%
Above or Equal 400,000 = 5%
Else = 2%

(f)   Write the steps that will be used to restrict the Region column entries such that one can only select from a drop-down list (Nairobi, Mombasa, Kisumu).   (4 marks)

(g)   Format the column titles so that the text is aligned at 45 degrees.   (2 marks)

Save "Question 34" and upload.   **(Total: 20 marks)**

35.   Use a presentation software to create a presentation called "Question 35". Use the information below to create the presentation.

Slide	Content	
1	**The Future of AI in Business**	
2	**Introduction** *Why AI matters in business* - AI is transforming industries - Drives efficiency and innovation - Essential for competitiveness	
3	**Current Uses of AI** - Customer service (chatbots) - Data analysis & insights - Process automation	
4	**Future Trends in AI**	
	• Smarter decision-making • Predictive analytics	• Personalised experiences • AI-driven business models
5	**Conclusion** - AI is shaping the future of work - Businesses must adapt - Thank You	

Required:

(a)   Select an appropriate Slide layout for each slide to create the above presentation.   (5 marks)

(b)   Format the titles on each slide to Calibri light font size 60.   (1 mark)

(c)   Apply a theme of your choice to all the slides.   (1 mark)

(d)   Insert slide numbers on all the slides.   (1 mark)

(e)   Apply zoom animation to the text on the last slide.   (1 mark)

(f)   Insert a footer "Artificial Intelligence" and apply to all slides.   (1 mark)

Save "Question 35" and upload.   **(Total: 10 marks)**

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DIPLOMA IN DATA MANAGEMENT AND ANALYTICS (DDMA)

DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINISTRATION (DCNSA)

LEVEL I

COMPUTER INFORMATION SYSTEMS APPLICATIONS

TUESDAY: 19 August 2025. Afternoon Paper.   **Time Allowed: 3 hours.**

Answer ALL questions. This paper has two (2) sections. SECTION I has thirty (30) Multiple Choice Questions of thirty (30) marks. SECTION II has four (4) practical questions of seventy (70) marks. Marks allocated to each question are indicated in the question.

Required resources:
- **A computer**
- **Ms office suite 2016**

SECTION I (30 MARKS)

1. The following are computer input devices, **EXCEPT** _____.
   A. Joystick
   B. Plotter
   C. Microphone
   D. Keyboard   (1 mark)

2. The non-volatile memory in your computer that cannot be written to is called _____.
   A. ROM
   B. RAM
   C. Cache
   D. Hard disk   (1 mark)

3. A set of programs that provides an interface between the user and the computer hardware and software is called _____,
   A. a CPU
   B. an object code
   C. an operating system
   D. a machine language   (1 mark)

4. The command used when you want to save a file with a different name, format and location is called _____.
   A. save
   B. new
   C. open
   D. save as   (1 mark)

5.   Which one of the following printing options ensures that content extends to the edge of the paper?
    A.   Crop marks
    B.   Page scaling
    C.   Bleed settings
    D.   Print preview   (1 mark)

6.   The function of frames in desktop publishing software is to _____.
    A.   hold text or images
    B.   adjust page margins
    C.   create linked styles
    D.   manage document layers   (1 mark)

7.   Which one of the following shows the formula used to calculate the total sales for a specific product category in a dataset using a pivot table?
    A.   SUM(Category, "Product", Sales)
    B.   DSUM(Category, "Product", Sales)
    C.   SUMIF(Category, "Product", Sales)
    D.   SUMIFS(Category, "Product", Sales)   (1 mark)

8.   Which one of the following statements **BEST** describes hibernation in a computer?
    A.   Saves the current state of the computer to the Hard drive then powers down the computer
    B.   Completely powers down the computer
    C.   Keeps the computers current state in memory
    D.   The process of restoring a computer from a low power mode   (1 mark)

9.   "Slide Master" view in PowerPoint is used to _____.
    A.   continuously display selected images on the computer either sequentially or at random
    B.   control the overall appearance such as formatting and design of each slide layout
    C.   display all slides as thumb nails making it easy to see the order and arrangement of your presentation
    D.   create and edit the content of each slide   (1 mark)

10. Which one of the following statements **BEST** describes the purpose of grouping objects in a presentation slide?
    A.   To apply animations to individual objects
    B.   To move or format them as a single unit
    C.   To insert charts and graphs into slides
    D.   To enable real-time collaboration features   (1 mark)

11. Which **ONE** of the following features allows a user to add interactivity by clicking buttons or shapes to jump to specific slides?
    A. SmartArt
    B. Hyperlinks
    C. Action Buttons
    D. Check boxes   (1 mark)

12. When reviewing a document, a user noticed the word "**Confidential**" marked on every page. Which one of the following **BEST** explains the purpose of this marking?
    A. To legally enforce copyright protection measures
    B. To prevent all unauthorised use of the document
    C. To indicate authenticity of ownership of a document
    D. To enhance the aesthetics and design of the document   (1 mark)

13. The following is a description of a Foreign Key, **EXCEPT** _____ .
    A. A field in one table that uniquely identifies each row in that same table
    B. A field in one table that refers to the primary key in another table
    C. A constraint used to maintain referential integrity between two tables
    D. A key that creates a relationship between two tables   (1 mark)

14. Which one of the following desktop publishing features is used to adjust the spacing between columns in a layout?
    A. Margin settings
    B. Gutter settings
    C. Padding settings
    D. Alignment tools   (1 mark)

15. Which one of the following database concepts ensures that data integrity is maintained during transactions?
    A. ACID properties
    B. Normalisation rules
    C. Indexing techniques
    D. Data redundancy   (1 mark)

16. Which one of the following tools in Ms Excel is used to break data in a single column into multiple columns using delimiters such as commas, tabs or spaces?

A. Text Wrap
B. Shrink Text to Fit
C. Text to Column
D. Conditional Formatting (1 mark)

17. Which one of the following features allows the user to view a presentation as it will appear during delivery?
A. Slide show mode
B. Slide sorter view
C. Master slide editor
D. Slide animation pane (1 mark)

18. The vertical distance between lines of text in Desktop Publishing is called _____.
A. kerning
B. leading
C. tracking
D. spacing (1 mark)

19. The first step in installing a software is _____.
A. restarting the computer
B. running the installer file
C. downloading the setup file
D. accepting the license agreement (1 mark)

20. Which one of the following features allows the user to restrict the type of data entered into a cell?
A. Cell shielding
B. Data filtering
C. Data validation
D. Cell protection (1 mark)

21. The maintenance and assurance of data accuracy, completeness and consistency throughout its life cycle ensuring it remains reliable and free from corruption or unauthorised alteration is called _____.
A. data privacy
B. data backup
C. data integrity
D. data security (1 mark)

22. The following are examples of Numeric Data types, **EXCEPT** _____.
A. varchar
B. integer
C. float
D. double (1 mark)

23. Which one of the following is **NOT** an example of an action query in a database?
    A. DELETE
    B. UPDATE
    C. SELECT
    D. APPEND   (1 mark)

24. The basic function of a network folder is to _____.
    A. store files locally
    B. backup system files
    C. share files across devices
    D. encrypt sensitive data   (1 mark)

25. Which one of the following actions is **NOT** performed by the track changes feature in Microsoft Word.
    A. Highlight deletions in the document
    B. Prevent unauthorised access to the document
    C. Display any formatting changes in the document
    D. Highlight insertions in the document   (1 mark)

26. What is the name of a field type in Microsoft Access that allows you to store and embed data from other applications like Word, Excel or Sound/Video file within your database?
    A. Hyperlink
    B. Hypertext
    C. OLE Object
    D. Mail merge   (1 mark)

27. Which one of the following features allows text to flow automatically across multiple frames?
    A. Text threading
    B. Text wrapping
    C. Frame linking
    D. Content scaling   (1 mark)

28. Which one of the following options shows the correct way to reference a call in another worksheet within the same workbook?
    A. SheetName:CellAddress
    B. SheetName!CellAddress
    C. SheetName/CellAddress
    D. SheetName.CellAddress   (1 mark)

29. What is data Synchronisation in the context of internet-based services?
    A. The process of manually transferring data between two computers
    B. Automatically updating data across multiple devices to ensure its consistency
    C. Creating a backup file on an external hard drive
    D. The process of compressing data to reduce its size   (1 mark)

30. Elasticity in cloud storage refers to the ability to _____.
    A. adjust resources based on demand
    B. encrypt data automatically and securely
    C. provide an extra layer of data protection offline
    D. handle increasing workloads by adding resources   (1 mark)

SECTION II (70 MARKS)

31. Create a spreadsheet workbook called "Question 31" to answer questions (a) to (e).

    (a) Populate the workbook with worksheets data shown below.   (6 marks)

    Sheet 1:

	A	B	C	D	E
1			BARAKA FARM		
2	Produce	Quantity	Price per kg (KSh.)	Harvest date	Supplier name
3	Tomatoes	250	139	15.8.25	
4	Potatoes	500	150	12.8.25	
5	Carrots	300	90	18.8.25	
6	Cabbages	200	100	10.8.25	
7	Bananas	400	140	20.8.25	
8					

    Sheet 2:

	A	B	C	D	E
1	Produce supplied	Supplier name	Contact person	Mobile number	Location
2	Tomatoes	Evergreen Traders	Aisha	721900900	Kajiado
3	Potatoes	Akiba supplies	John	751900900	Eldoret
4	Bananas	Bakari Ltd.	Noah	723900900	Mombasa
5	Carrots	Zahra Co.	Amon	753900900	Siaya
6	Cabbages	Nala Traders	Ada	101900900	Busia

    (b) Rename sheet 1 to "Farm produce'".   (2 marks)

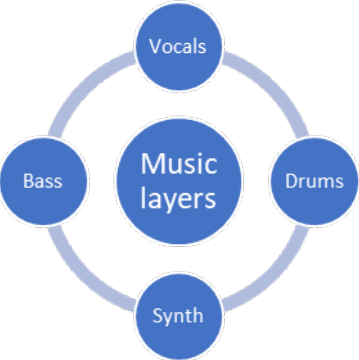   (c) Rename sheet 2 to "Suppliers".   (2 marks)

(d)   Use an appropriate formula in column E on the 'Farm produce' worksheet to find the supplier name. The formula should reference the 'Suppliers' worksheet and match the produce name in 'Farm produce' worksheet.   (5 marks)

(e)   Create a clustered column chart to visualise farm produce per price per kg. The chart should include the following:

   (i)   Axis titles. The X-axis should be labelled "Produce name" and the Y-axis labelled "Price per kg".   (3 marks)

   (ii)   Data labels on the inside end.   (1 mark)

   (iii)   Chart title – BARAKA FARM.   (1 mark)

Save "Question 31" and upload.   **(Total: 20 marks)**

32.   Use presentation software to create a blank presentation called "Question 32" and use it to answer questions (a) to (d).

   (a)   Use the details provided in the following table to create an appealing presentation.   (10 marks)

Slide	Layout	Other details	Font type and size
1	Blank	Insert an oval callout and a textbox with the following text: "Every great idea starts with imagination. Are you ready to innovate?"	Font "impact". Font size 40
2	Blank	Insert the text "INNOVATION MEETS IMAGINATION"	Font "impact". Font size 60.
3	Title and content layout	Title: THE POWER OF CREATIVITY Content: • Creativity drives industries like gaming, film, music, and digital content creation. • Social media influencers and content creators shape the entertainment landscape.	Title: Font "impact". Font size 40 Content: Font "Comic sans MS" Font size 32
4	Title and content layout	Title: BUSINESS OPPORTUNITIES IN THE SECTOR Content: • Rise of user-generated content in entertainment. • Monetising creativity through virtual and augmented reality.	Title: Font "impact". Font size 40 Content: Font "Comic sans MS" Font size 32
5	Blank	Title: The core of sound Content: Insert the following SmartArt: 	Title: Font "impact". Font size 40

(b) Insert a hyperlink to the text "music" in slide 3 to link it to Slide 5. (2 marks)

(c) Apply zoom animation to the text on Slide 1 and 2. (4 marks)

(d) Format the background for all slides to Gradient fill. (4 marks)

Save "Question 32" and upload. **(Total: 20 marks)**

33. Create a database called "Question 33" and use it to answer questions (a) to (d).

(a) Create "**Products**" and "**Orders**" tables design and populate with the details below. (8 marks)

ProductID	Name	Category	Size	Color	Price	StockQuanti
1	Classic Tshirt	Tshirts	M	Black	1200	50
2	Hoodie Jacket	Jackets	XL	Grey	4500	20
3	Sneakers	Footwear	36	White	6000	15
4	Polo Shirt	Tshirts	S	Red	2200	40
(New)						0

Products Table

OderID	ProductID	OrderDate	TotalAmoun	PaymentSta
1001	2	8/25/2028	6700	Pending
1002	3	8/25/2022	1200	Paid
1003	1	8/25/2025	4500	Paid
1004	3	8/23/2025	3500	Refunded
1005	2	8/20/2025	2200	Paid
0	0		0	

Orders Table

(b) Create a "one to many" relationship to link ProductID in both tables. (3 marks)

(c) Create a query to display all products with fewer than 20 items left in stock. Run the query and capture a screenshot showing the result. Save the query as "Low stock. (3 marks)

(d) Create a query to display all the fields in the Orders table.

    (i) Filter the query by using the Payment status column to ensure that only **completed orders** are included. Save the query as "completed orders". (3 marks)

    (ii) Use the TotalAmount column to sum up all completed orders. Add a **Total** row to your query to display the sum of totals in the TotalAmount column. Save the query as "Total revenue". (3 marks)

Save "Question 33" and upload. **(Total: 20 marks)**

34. Create a word processing document called "Question 34"and use it to answer questions (a) to (d).

HUMAN-COMPUTER INTERACTION

Human-Computer Interaction (HCI) is a field that studies how people interact with computer systems, focusing on designing and evaluating interfaces and technologies to make them more user-friendly, efficient and enjoyable.

Topics in human–computer interaction include the following:

Virtual reality

Virtual reality creates a fully immersive digital environment, allowing users to interact with computer-generated worlds through sensory input devices. Research focuses on user presence, interaction techniques and cognitive effects of immersion. A key area of study is the impact of Virtual Reality on cognitive load and user adaptability, influencing how users process information in virtual spaces.

Mixed reality

Mixed reality blends elements of both augmented reality and virtual reality. It enables real-time interaction with both physical and digital objects. HCI research in MR concentrates on spatial computing, real-world object interaction, and context-aware adaptive interfaces. MR technologies are increasingly applied in education, training simulations, and healthcare, enhancing learning outcomes and user engagement.

Extended reality

Extended reality is an umbrella term encompassing Augmented Reality, Virtual Reality and Mixed Reality, offering a continuum between real and virtual environments. Research investigates user adaptability, interaction paradigms, and ethical implications of immersive technologies.

Human- Computer Interaction Accessibility

Accessibility in human–computer interaction focuses on designing inclusive digital experiences, ensuring usability for people with diverse abilities. Studies indicate that accessible design benefits not only people with disabilities but also enhances usability for all users.

(a)   Create the above text and format the title "HUMAN-COMPUTER INTERRACTION" to be font size 14 and "Centered".   (3 marks)

(b) Add a Drop Cap to the first letter in the paragraph by 2 lines.   (2 marks)

(c) Format the document from the second paragraph to have 2 columns separated by a line in the middle.   (2 marks)

(d)   Insert a footer at the end of the document with the Page number and the date and time to be updated automatically.   (3 marks)

Save "Question 34" and upload.   **(Total: 10 marks)**

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DIPLOMA IN DATA MANAGEMENT AND ANALYTICS (DDMA)

DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINISTRATION (DCNSA)

LEVEL I

COMPUTER INFORMATION SYSTEMS APPLICATIONS

WEDNESDAY: 23 April 2025. Afternoon Paper.   **Time Allowed: 3 hours.**

Answer ALL questions. This paper has two (2) sections. SECTION I has thirty (30) Multiple Choice Questions of thirty (30) marks. SECTION II has four (4) practical questions of seventy (70) marks. Marks allocated to each question are indicated in the question.

Required resources:
- **A computer**
- **Ms office suite 2016**

SECTION I (30 MARKS)

1. Which one of the following shortcut keys can be used to cut selected text?
    A.   CTRL + A
    B.   CTRL + Z
    C.   CTRL + V
    D.   CTRL + X   (1 mark)

2. Which one of the following is a command bar that arranges a program's features in a series of tabs at the top of a window?
    A.   Desktop
    B.   Favorites
    C.   Ribbon
    D.   Trust center   (1 mark)

3. Which one of the following tools lets you copy formatting from one portion of a document to another?
    A.   Format painter
    B.   Paste Special
    C.   Copy paste
    D.   Typeahead   (1 mark)

4. Which one of the following can be used to adjust the level of magnification in the lower-right corner of the program window?
    A.   Status bar
    B.   Zoom slider
    C.   Title bar
    D.   Web layout   (1 mark)

5. Which type of cell reference allows either the row or the column to remain fixed while the other changes?
   A. Relative Cell Reference
   B. Absolute Cell Reference
   C. Mixed Cell Reference
   D. Bottom Cell Reference   (1 mark)

6. Which one of the following is **NOT** a file compression tool?
   A. 7-Zip
   B. 5-Zip
   C. WinRAR
   D. WinZIP   (1 mark)

7. Which one of the following **BEST** describes a baseline when managing a publication project?
   A. The initial set of plans and detailed schedules against which the project's progress is measured
   B. A point of reference or standard against which progress and performance can be measured
   C. Significant points or events in a project timeline that mark the completion of major phases
   D. Quantifiable measures used to track and assess the progress of various aspects of the project   (1 mark)

8. Which one of the following functions when used in word will add the numbers in the column above the cell you are now in?
   A. =SUM(LEFT)
   B. =SUM(RIGHT)
   C. =ADD(ABOVE)
   D. =SUM(ABOVE)   (1 mark)

9. Which Ms Excel feature allows you to divide a single cell into multiple cells, while keeping the original structure intact?
   A. Merge Cell
   B. Split cell
   C. Freeze pane
   D. Hide window   (1 mark)

10. Which one of the following refers to a set of colours used in an image or artwork?
   A. Color code
   B. Color depth
   C. Color palette
   D. Color wheel   (1 mark)

11. Which one of the following can be used in a spreadsheet to check data against a list of rules in order to limit the type of data that can be entered into a cell?
   A. Data cleaning
   B. Data munging
   C. Data wrangling
   D. Data validation   (1 mark)

12. A feature in Microsoft Office Word that allows a user to quickly search through the document they are working on is known as _____.
    A. navigation pane
    B. headings
    C. margins
    D. immersive reader   (1 mark)

13. Molly Kandie was preparing for a presentation and wanted his notes to be visible on his monitor, but not to the audience. Which one of the following options **BEST** shows where to store the talking points to refer to during the presentation?
    A. Master slide
    B. Slide notes
    C. Notes master
    D. Slide sorter   (1 mark)

14. A predefined set of colours, fonts and visual effects that is applied to your slides for a unified look professional look is referred to as _____.
    A. screensaver
    B. wallpaper
    C. theme
    D. home screen   (1 mark)

15. Which one of the following functions will automatically display current date in a cell?
    A. HOUR
    B. EDATE
    C. MONTH()
    D. TODAY()   (1 mark)

16. Which type of chart in Microsoft Excel allows you to display two different types of data series, such as both a column chart and a line chart, on the same graph?
    A. Scatter chart
    B. Radar chart
    C. Combo chart
    D. Column chart   (1 mark)

17. Which one of the following should be considered when making a presentation?
    A. Maximise written text and details to ensure that all information is thoroughly conveyed
    B. The slides should be designed to complement and enhance your spoken presentation
    C. Read all the content on your slides word-for-word and expand details as you present
    D. Avoid making eye contact and audience participation when making your presentation   (1 mark)

18. The solver tool in Spreadsheets is used to _____.
    A. find the optimal value for a formula in one cell
    B. apply formatting based on cell values
    C. set visualised geographic data on a 3D map
    D. add a mathematical equation to a document   (1 mark)

19.   What is the name given to the visual display of table data or query results?
      A.   Table view
      B.   Materialised view
      C.   Normal view
      D.   Datasheet view   (1 mark)

20.   Which one of the following is **NOT** a benefit of using thumbnail pages in publications?
      A.   Quick navigation
      B.   Content overview
      C.   Improved print quality
      D.   Streamlined workflow   (1 mark)

21.   Printing a document may not always be necessary, as you may want to print only a specific section or range of
      pages. Which of the following options allows you to print only specific pages of a document?
      A.   Caption print
      B.   Custom print
      C.   Content print
      D.   Design print   (1 mark)

22.   Which one of the following describes a connection between two database tables in which one table has a foreign
      key that references the primary key of the other?
      A.   Relationship
      B.   Objects
      C.   Entities
      D.   Wizard   (1 mark)

23.   A visual representation of images, data, or knowledge intended to present complex information quickly and
      clearly is referred to as _____.
      A.   animation
      B.   live code
      C.   transition
      D.   infographic   (1 mark)

24.   Which one of the following helps you maintain the alignment of objects, such as pictures, text boxes, and tables?
      A.   Layout guides
      B.   Preserves formatting
      C.   Unlimited interactivity
      D.   Professional appearance   (1 mark)

25.   Which one of the following **BEST** describes the use of frames in desktop publishing?
      A.   To change publication designs, color schemes and design options
      B.   To provide a temporary space for content that will be added later
      C.   To permanently replace content with a default image or text
      D.   To ensure that the document presented is visually appealing   (1 mark)

26.   Which one of the following can be used by the designer in publisher to precisely align text lines across multiple columns?
A.   Graphics manager
B.   Scratch area
C.   Baseline guides
D.   Page Navigation   (1 mark)

27.   Mail merge lets you create a batch of documents that are personalised for each recipient. Which one of the following is a type of document required for Mail merge?
A.   Template
B.   Data source
C.   Letterhead
D.   Signature block   (1 mark)

28.   Which one of the following spreadsheet features can be used to filter dates interactively?
A.   Timebox
B.   Gridlines
C.   Captions
D.   Timelines   (1 mark)

29.   Which of the following features in presentation software allows users to add feedback and monitor modifications made by others?
A.   Slide Transitions
B.   Review
C.   Templates
D.   Animations   (1 mark)

30.   Which one of the following word processing features can be used to automate repetitive tasks and save time?
A.   Macros
B.   Tables
C.   Styles
D.   Objects   (1 mark)

31. Create a word processing document called "Question 31" and use the information provided below to save your solutions from (a) to (f).

INTEGRATION OF AI INTO COMPUTING
Artificial Intelligence (AI) has significantly transformed computing by automating tasks, enhancing decision-making, and optimising performance. AI integration in computing spans various fields, including cybersecurity, software development, cloud computing, and user experience enhancement.

AI in Cybersecurity
AI plays a crucial role in modern cybersecurity by identifying threats, analysing vast amounts of data, and responding to cyberattacks in real time. AI-powered security tools help detect anomalies, prevent phishing attacks, and enhance network security by predicting vulnerabilities before exploitation.

AI in Software Development
Developers integrate AI-driven tools such as code generators, automated debugging systems, and predictive analytics to enhance efficiency and reduce errors. AI-powered assistants like ChatGPT help programmers write and optimise code, making software development faster and more reliable.

AI in Cloud Computing
Cloud computing leverages AI for intelligent resource management, predictive maintenance, and cost optimisation. AI enhances cloud security by monitoring user activity and detecting suspicious behavior. Additionally, AI-driven automation streamlines cloud operations, ensuring efficient data management and workload distribution.

AI in User Experience (UX) Enhancement
AI improves user experience by personalising recommendations, enabling voice recognition, and automating customer support through chatbots. Smart assistants like Siri, Alexa, and Google Assistant use AI to provide seamless interactions and predictive suggestions based on user behaviour.

The integration of AI in computing continues to evolve, making systems smarter, more secure and efficient in handling complex tasks.

(a) Type the information provided above and format the title "INTEGRATION OF AI INTO COMPUTING" to be center-aligned, bold, 16-point size and in the Garamond font. (4 marks)

(b) Apply the Heading 1 style to the following as subheadings:

    (i) AI in Cybersecurity. (1 mark)

    (ii) AI in Software Development. (1 mark)

    (iii) AI in Cloud Computing. (1 mark)

    (iv) AI in User Experience (UX) Enhancement. (1 mark)

(c) Set the body text to justified alignment and change the font to Garamond with a size of 12. (2 marks)

(d) Below the last paragraph, insert a table with two columns and four rows. The first column should list the **FOUR** AI applications mentioned in the document: Cybersecurity, Software Development, Cloud Computing and User Experience. The second column should provide a brief summary of AI's role in each application. (6 marks)

(e) Insert a relevant AI-related image above the first paragraph, resize it to 3 inches in height and 2 inches in width and center-align it. (5 marks)

(f) Add a single-line page border to the document and insert a footer containing your name and page number. (4 marks)

Save "Question 31" and upload.

(Total: 25 marks)

32. Create a spreadsheet workbook called "Question 32" and use the information provided below to save your solutions from (a) to (e).

   (a) Using a spreadsheet application create a work sheet named "CONRAD GAS LTD" containing the data as shown below: (4 marks)

1	CONRAD GAS LTD - Employee Details							
2								
3	Last Name	First Name	Hire Date	Hire Month	Department	Division	Salary	Bonus
4	Wekesa	Alex	4/2/2011	Apr	Sales	5	$35,000	$2,917
5	Juma	John	3/8/2010	Mar	Administration	2	$33,000	$2,750
6	Wemba	Albert	11/18/1998	Nov	Support	2	$32,000	$2,667
7	Wanjiru	Sherissa	1/2/2004	Jan	New Tech	5	$72,000	$6,000
8	Atieno	Amy	9/7/1997	Sep	Support	4	$29,000	$2,417
9	Nafula	Christine	10/4/2002	Oct	Administration	4	$60,000	$5,000
10	Kimani	Ronald	1/6/2001	Jan	New Tech	2	$34,000	$2,833
11	Kamau	Terry	6/12/2000	Jun	Sales	2	$35,000	$2,917
12	Katana	Wayne	8/18/2001	Aug	Sales	2	$35,000	$2,917
13	Sulubu	Henry	1/4/1999	Jan	Support	2	$38,000	$3,167
14	Adisa	Laura	9/13/2001	Sep	Support	2	$40,000	$3,333
15	Metwa	Carl	3/24/2003	Mar	New Tech	2	$51,000	$4,250

   (b) Create an average subtotal list using the department column for salary and bonus of each employee. (6 marks)

   (c) Capture a screenshot displaying collapse of the outline details for each department. (3 marks)

   (d) Sort data by multiple levels as follows: (6 marks)

Column	Sort on	Order
Department	Cell values	A to Z
Division	Cell values	Largest to Smallest
Salary	Cell values	Smallest to Largest

   (e) Display the month in the order of January, February and March by using the Custom sort feature. (6 marks)

Save "Question 32" and upload. **(Total: 25 marks)**

33. Create a word processing document called "Question 33" and use the information provided below to save your solutions from (a) to (e)

   (a) Use presentation software to create a plain presentation using the details provided in the following table. (8 marks)

Slide	Layout	Title	Subtitle
1	Title only	ANNUAL CHARITY WALK	
2	Title slide	HELLS GATE NATIONAL PARK	April 19th, 2025 from 6-8am
3	Title slide	PURPOSE	This event brings together compassionate individuals and organisations to support educational causes.
4	Title slide	EDUCATIONAL CAUSES	❖ School supplies ❖ Technology access ❖ Educational programs ❖ Infrastructure development
5	Blank slide	Insert a text box to display the following: This year, we celebrate the spirit of giving and the impact we can make when we come together.	Insert an information action button to navigate to Slide 3 when clicked.
6	Blank slide	Insert a text box to display the following: VENUE, DATE AND TIME	Insert an action button to navigate to Slide 2 when clicked. Ensure the action button is clearly labelled "VENUE".

(b) Apply appropriate theme to the entire presentation to ensure consistency and enhance the visual appeal.

(4 marks)

(c) Apply Fly In animation to the text of 'ANNUAL CHARITY WALK' on the title slide to start on a mouse click. (4 marks)

(d) Apply the Flip transition to all the slides, ensuring they transition with the appropriate sound. (4 marks)

Save "Question 33" document and upload. **(Total: 20 marks)**

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DIPLOMA IN DATA MANAGEMENT AND ANALYTICS (DDMA)

DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINISTRATION (DCNSA)

LEVEL I

COMPUTER INFORMATION SYSTEMS APPLICATIONS

TUESDAY: 3 December 2024. Afternoon Paper.   **Time Allowed: 3 hours.**

Answer ALL questions. This paper has two (2) sections. SECTION I has thirty (30) Multiple Choice Questions of thirty (30) marks. SECTION II has four (4) practical questions of seventy (70) marks. Marks allocated to each question are indicated in the question.

Required resources:
- **A computer**
- **Ms office suite 2016**

SECTION I (30 MARKS)

1. Which function in Excel is used to find data in a table vertically to return either an exact or an appropriate match?
    A. Logic
    B. Find
    C. Hlookup
    D. Vlookup   (1 mark)

2. Which one of the following file formats is best suited for web graphics with transparent backgrounds?
    A. PNG
    B. TIF
    C. JPG
    D. PDF   (1 mark)

3. Which one of the following printers is set as the primary choice for printing tasks on a computer?
    A. Digital printer
    B. Default printer
    C. Laser printer
    D. All in one printer   (1 mark)

4. A large capital letter used as a decorative element at the beginning of a paragraph or a section is called_____.
    A. word art
    B. caps
    C. bold text
    D. drop cap   (1 mark)

5. Which one of the following statements **BEST** describes a hyperlink?
   A. The address of a specific webpage or file on the internet
   B. A clickable element that directs you to a webpage
   C. Text which contains links to the server
   D. Information exchange between clients and servers (1 mark)

6. Which one of the following features in spreadsheet allows text to automatically move to the next line when it reaches the edge of a cell?
   A. Text wrap
   B. Text overflow
   C. Text split
   D. Text overrun (1 mark)

7. What is the primary purpose of the Pen tool in vector graphics software?
   A. To create graphics using drag and drop designs
   B. To create precise paths and anchor points
   C. To drag and zoom in on a picture's details
   D. For photo manipulation in detailed paintings (1 mark)

8. Which one of the following is **NOT** a data type in databases?
   A. Boolean
   B. String
   C. Float
   D. Size (1 mark)

9. Which one of the following features is **NOT** found on the data ribbon in Excel?
   A. Text to columns
   B. Data validation
   C. Pivot Tables
   D. What-if Analysis (1 mark)

10. When using presentation software, Mary came across the following mark on Slide 3. Which one of the following does the mark indicate?

    A. A reset slide
    B. A hidden slide
    C. A reset layout
    D. A deleted slide (1 mark)

11. In designing a database, it was established that a customer can place more than one order. What kind of relationship is existing between a customer and order tables?
    A. One to One relationship
    B. Symbiotic relationship
    C. One to Many relationship
    D. Many to Many relationship (1 mark)

12. The adjustment of spaces between two individual letters or characters in Desktop Publishing is known as _____.
    A.   kerning
    B.   leading
    C.   tracking
    D.   typesetting   (1 mark)

13. Which one of the following types of memory stores data that you are currently working on temporarily as long as the power is on but lost if the power goes off?
    A.   Cache memory
    B.   Read only memory
    C.   Virtual memory
    D.   Random access memory   (1 mark)

14. Which one of the following methods can be used to select the entire line in a word processing software?
    A.   Double-click inside the line
    B.   Triple-click inside the line
    C.   Right-click inside the line
    D.   Left-click inside the line   (1 mark)

15. Which one of the following statements **BEST** describes computer ergonomics?
    A.   The study of computer evolution
    B.   Use of computers to solve complex economic problems
    C.   Practice of protecting systems, networks and programs from digital attacks
    D.   Ways to optimise your workstation to reduce specific computer risks   (1 mark)

16. Which one of the following statements **BEST** describes a slideshow in presentation software?
    A.   A visual effect featuring various animations, that takes place when transitioning from one slide to the next
    B.   A template designed using distinct colours and fonts, used at the starting point for designing a presentation
    C.   A sequence of still images arranged in a specific order, usually shown on a screen or projection surface
    D.   A thumbnail of all the slides in the presentation to allow the user to move from one slide to another
                                                                                                       (1 mark)

17. Which one of the following features is used by WhatsApp to ensure that only you and the person in communication with can read or listen to what is sent?
    A.   End-to-End Encryption
    B.   Firewall
    C.   Antivirus
    D.   End-point security   (1 mark)

18. Which one of the following formulas, is used to display the contents of cell B1 located in an Excel worksheet called "Sheet2" to cell A1 in a worksheet called "Sheet1" as used in Excel spreadsheets?
    A.   =Sheet2!B1
    B.   =Sheet2!A1
    C.   =Sheet1!B2
    D.   =Sheet1!A1   (1 mark)
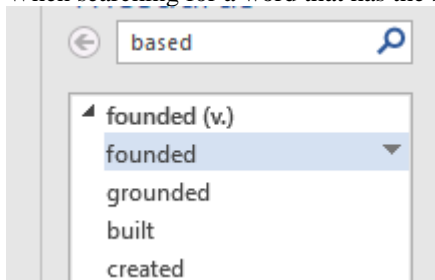
19. Which one of the following actions can be used to make selected objects to be treated as a single unit in a document?
    A. Markup
    B. Lookup
    C. Grouping
    D. Clustering (1 mark)

20. The unique number assigned to each device connected to the internet to enable access to the internet is known as
    _____.
    A. domain
    B. IP Address
    C. path
    D. World Wide Web (1 mark)

21. Which one of the following desktop publishing features is essential for managing large documents to maintain a consistent layout?
    A. Text wrapping
    B. Image filters
    C. Spell checker
    D. Master pages (1 mark)

22. The following are parts of designing a magazine cover, **EXCEPT**_____.
    A. Layout
    B. Imagery
    C. Articles
    D. Masthead (1 mark)

23. In a student entity, the "student registration" number is an example of _____.
    A. surrogate key
    B. composite key
    C. foreign key
    D. primary key (1 mark)

24. Which one of the following functions is used in Excel to tally the number of non-blank records in a single-column table?
    A. COUNT
    B. COUNTA
    C. COUNTB
    D. COUNTIF (1 mark)

25. The additional space incorporated into the inner margin of a document for binding purposes is referred to as
    _____.
    A. gutter margin
    B. mirror margin
    C. indent margin
    D. binder margin (1 mark)

26. Which one of the following is a type of method used for sending audio conversations through the internet?
    A. Voice over internet protocol
    B. Trivial file transfer protocol
    C. Transmission control protocol
    D. Simple mail transfer protocol   (1 mark)

27. The process of restricting the type of data that can be entered into a spreadsheet cell is known as _____.
    A. data encryption
    B. password protection
    C. data validation
    D. data type   (1 mark)

28. Which one of the following actions is **NOT** an advantage of partitioning a hard drive as used in computer maintenance?
    A. Apply multiple file systems and partition styles
    B. To protect important files
    C. It is easy and fast to access the files
    D. Allows installation of more than one Operating System   (1 mark)

29. When searching for a word that has the same meaning as "based", a student came across the terms listed below:

    Identify the word processing tool used to display these terms.
    A. Thesaurus
    B. Grammar
    C. Dictionary
    D. Pictionary   (1 mark)

30. Which one of the following cyber-attacks is described as the fraudulent practice of sending emails or other messages purporting to be from reputable companies to tempt individuals to reveal personal information such as passwords or credit card numbers?
    A. Spamming
    B. Spoofing
    C. Phishing
    D. Denial of service   (1 mark)

31. Create a word processing document called Question 31 and use it to save your solution from (a) to (d).

   (a)   Use a presentation software to create a presentation using the details provided in the following table.

   (12 marks)

Slide 1	**FINANCES** The Roadmap to your financial freedom
Slide 2	**TOPICS TO DISCUSS** • Budgeting • Emergency Fund • Debt Management • Retirement Planning • How to come up with a unique Business Idea • Financial Freedom
Slide 3	**HOW TO MANAGE YOUR FINANCES** **1. Budgeting** • Plan for your money before you get it • Write down all your sources of income, the amount and your expenditure weekly, monthly or annually **2. Emergency Fund** • Calculate your monthly expenditure and save 3-6 months spending in an **accessible investment plan.** • Do your research to know where you will invest your money
Slide 4	**3. Debt Management** • Write down a list of all the debts you have including for mama mboga • Start by paying the debts with the highest interest rates • Make plans to clear all the other debts **4. Retirement Planning** • Have a clear picture of the life you want after retirement and invest towards it • Determine the amount you need to be saving monthly to achieve your target • Alternatively, you can invest in a **cash flowing asset** such as (farming, poultry, livestock) that will be bringing in money
Slide 5	FINANCIAL FREEDOM!THE END

   (b)   Apply a theme of your choice to all the slides.   (1 mark)

   (c)   Insert a date on all the slides.   (1 mark)

   (d)   Apply "wipe" transition to all the slides.   (1 mark)

Save "Question 31" and upload.

(Total: 15 marks)

32. Create a word processing document called "Question 32" and use it to save your solution to questions (a) to (d).

(a) Use a spreadsheet software to create a workbook called "Question 32" and populate it with the data shown below: (4 marks)

	A	B	C	D	E	F
1			TARAJI LIMITED			
2	Date	Product id.	Product name	Units sold	Unit price (Ksh.)	Total sales (Ksh.)
3	1.4.2024	P001	Device A	200	1300	
4	2.4.2024	P002	Device B	150	1900	
5	3.4.2024	P003	Device C	100	2500	
6	4.4.2024	P004	Device A	250	1000	
7	5.4.2024	P005	Device B	150	1500	
8	6.4.2024	P006	Device C	100	900	
9	7.4.2024	P007	Device A	150	1600	
10	8.4.2024	P008	Device B	50	2000	
11	9.4.2024	P009	Device C	200	2400	
12	10.4.2024	P010	Device A	150	1200	
13	11.4.2024	P011	Device B	80	1900	
14	12.4.2024	P012	Device C	110	1000	

(b) Calculate the Total sales for each product. (2 marks)

(c) Summarise the total sales for each product using a Pivot table that shows the Product name and Total sale sort the PivotTable in descending order of Total sales. Save the Pivot table in a new worksheet named "Pivot table". (6 marks)

(d) The following table shows the population reported in 5 countries in the year 2023.

	A	B	C
1	Country	Population (millions) in 2023	
2	Kenya	55.3	
3	Japan	124.3	
4	Nigeria	223.8	
5	Germany	84.7	
6	Ethiopia	128.6	
7			

(i) Insert the data in a new worksheet named "Population. (2 marks)

(ii) Create a pie chart in the same worksheet to visualize the population distribution among the listed countries. Add data labels to show the population for each country. (2 marks)

(iii) Edit the chart title to display the text "Population per country (millions) in 2023". (1 mark)

(iv) Use a formula to transfer the data from cells A1 to B6 to cells A11 to F12. (3 marks)

Save "Question 32" and upload.

(Total: 20 marks)

33.   Create a document called "Question 33" and use it to save your answers for questions (a) to (d).

    (a)   Create the document shown below using a word processor software.   (10 marks)

    (b)   Insert the page numbering aligned at the center of the page, bold it, and set the font size to 14.   (3 marks)

    (c)   Change the bulleted list into a numbered list setting the numbering value to start at number 5.   (2 marks)

    (d)   Create the table shown below using a word processor.   (5 marks)

	A	B	C	D	E
1	AʙC Construction Company				
2	Building Construction Material				
3	Item Name	Quantity	Cost per Item	Total Cost	Remark
4	Cement	100	750		
5	Nails	40	120		
6	Timber	1000	15		
7					

Save "Question 33" and upload.

(Total: 20 marks)

34.   Create a document called "Question 34" and use it to save your answers for questions (a) to (c).

    (a)   Use a scenario of your choice to illustrate the following types of relationships in Ms Access:
-    One to one
-    One to many
-    Many to many

Capture and save screenshots to show the above types of relationships in Ms Access.   (6 marks)

    (b)   Using Ms Access, create a table with the data as shown below: (2 marks)

StudentReg	StudentName	StudentDateofBirth	TotalMarks
1	Mary	22 Oct 1990	50
2	Jane	15 Oct 1991	35
3	John	8 Oct 1992	80

    (c)   Create a query called Remark using "Students" table created in question (b) above. Insert a field called "Remark".

On the Remark field, use a function to automatically indicate a comment. If Students' Total marks is greater than or equal to 50, indicate a comment "Good" else "Retry" as shown below.

StudentReg	StudentName	TotalMarks	Remark
1	Mary	50	Good
2	Jane	35	Retry
3	John	80	Good

Capture and save a screenshot showing the function you have used.   (7 marks)

Save Question 34 document and upload.

(Total: 15 marks)

....

DIPLOMA IN DATA MANAGEMENT AND ANALYTICS (DDMA)

DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINISTRATION (DCNSA)

LEVEL I

COMPUTER INFORMATION SYSTEMS APPLICATIONS

TUESDAY: 20 August 2024. Afternoon Paper.   **Time Allowed: 3 hours.**

Answer ALL questions. This paper has two (2) sections. SECTION I has thirty (30) Multiple Choice Questions of thirty (30) marks. SECTION II has four (4) practical questions of seventy (70) marks. Marks allocated to each question are indicated in the question.

Required resources:
- **A computer**
- **Ms office suite 2016**

SECTION I (30 MARKS)

1.   Which one of the following charts compares values in categories over time?
      A.   Radar
      B.   Combo
      C.   Bar chart
      D.   Line chart   (1 mark)

2.   Which one of the following refers to a universal file format and can be opened in any system?
      A.   .gif
      B.   .pdf
      C.   .tiff
      D.   .docx   (1 mark)

3.   Which one of the following terms can be used in a presentation to store information about the theme and slide layouts?
      A.   Master
      B.   Content
      C.   Roadmaps
      D.   Timelines   (1 mark)

4.   Which one of the following is **NOT** a component of an expert system?
      A.   Inference engine
      B.   User interface
      C.   Knowledge base
      D.   Language execution   (1 mark)

5.   In a database software, the function IsNull is used to_____.
      A.   find all records where no entry has been made in the field
      B.   find all records are available
      C.   ensure that a column will not accept null values
      D.   ensure that undefined entries are not stored   (1 mark)

6.   Which one of the following is **NOT** an example of shared resource?

A. Data
B. Storage device
C. Printer
D. Keyboard (1 mark)

7. An application software that acts as a super calculator that performs computations on data that is in rows and columns is known as_____.
A. calculation
B. spreadsheet
C. function
D. summation (1 mark)

8. What is the name of the mouse action involving quickly pressing and releasing the left mouse button once?
A. Drag
B. Point
C. Click
D. Drop (1 mark)

9. In database management software, which one of the following languages is used to create, modify and remove database objects such as tables, indexes and users?
A. Data Query Language
B. Data Definition Language
C. Data Manipulation Language
D. Transaction Control Language (1 mark)

10. Which one of the following spreadsheet features can be used to adjust a column to accommodate the widest entry?
A. Autofit
B. Resize
C. Width
D. Alter (1 mark)

11. Which one of the following is **NOT** a valid view of a document in a word processing software?
A. Outline
B. Draft
C. Zoom
D. Web Layout (1 mark)

12. Which one of the following features allows a user to insert a text that is suggested by the screen tip?
A. Autoconnect
B. Autocorrect
C. Autodidact
D. Autocomplete (1 mark)

13. Which one of the following errors is usually displayed when a spreadsheet doesn't recognise the name of the function you entered?
A. #NULL!
B. #NUM!
C. #NAME?
D. #VALUE! (1 mark)

14. Which one of the following devices can be used to measure quantities such as temperature, pressure and amount of light and then transfer the signals to be analysed by a computer?
A. Sensor
B. Quantum
C. Multimeter
D. Barometer (1 mark)

15. Which one of the following technologies allows a user to obtain directions, maps and recommendations for points of interest based on their current location?
    A.   Wi-Fi
    B.   GRPS
    C.   GIS
    D.   GPS   (1 mark)

16. Which one of the following refers to the ratio of the width to the height of an image?
    A.   Pixel ratio
    B.   Activity ratio
    C.   Aspect ratio
    D.   RGB ratio   (1 mark)

17. Which one of the following statements **BEST** describes Add-ins in a word processing software?
    A.   Additional features or tools that you can install to extend the functionality of the application.
    B.   Software tools that provide synonyms for selected words.
    C.   Text modifying features which include effects such as shadows, outlines, colors, gradients and 3D effects that can be added to a word or phrase.
    D.   Graphics that are used to represent information and ideas visually   (1 mark)

18. In desktop publishing, which term is **BEST** explained as the space placed between columns in a design to add breath and is needed to accommodate the binding of a publication?
    A.   Creep
    B.   White space
    C.   Frame
    D.   Gutter   (1 mark)

19. Which one of the following types of storage devices is generally used in digital cameras, printers and game consoles?
    A.   Pen Drive
    B.   Solid State Drive
    C.   Memory Card
    D.   Hard disk   (1 mark)

20. In word processing software, the type of indent that sets off the first line of a paragraph by positioning it at the margin, and then indenting each subsequent line of the paragraph is known as?
    A.   Hanging indent
    B.   First line indent
    C.   Right indent
    D.   Left indent   (1 mark)

21. In a spreadsheet, the type of cell referencing used when one needs a formula to always refer to particular cell no matter where it is moved is known as_____.
    A.   mixed
    B.   relative
    C.   absolute
    D.   cross   (1 mark)

22. Which one of the following database terms is **BEST** defined as an object or thing in real world which information should be stored?
    A.   Record
    B.   Entity
    C.   Field
    D.   Schema   (1 mark)

23. Which one of the following software is **NOT** an example of a desktop publishing software?
    A.   Photoshop
    B.   InDesign
    C.   Scribus
    D.   FrameMaker   (1 mark)

24. Which one of the following keyboard keys are used to quickly navigate to the last data-containing cell in a worksheet?
    A.   Ctrl + Home
    B.   Ctrl + End
    C.   Shift + Enter
    D.   Ctrl + Shift + L   (1 mark)

25. The first page that appears on a website is referred to as_____.
    A.   landing page
    B.   storefront
    C.   cover page
    D.   homepage   (1 mark)

26. Which one of the following type of a slide is **NOT** part of a presentation software?
    A.   Section heading slide
    B.   Introduction slide
    C.   Picture with caption slide
    D.   Content slide   (1 mark)

27. Which one of the following statements is **NOT TRUE** of name box in a spreadsheet?
    A.   It is a small input box located to the left of the formula bar
    B.   Displays the address of the active cell or range of cells
    C.   Can be used to input a formula or function
    D.   Allows a user to navigate to any range in a worksheet by typing in the name or reference   (1 mark)

28. Which one of the following tasks is **NOT** a use of desktop publishing software?
    A.   Creating marketing collaterals
    B.   Book and magazine publishing
    C.   Creating website contents
    D.   Creating presentation   (1 mark)

29. Which one of the following statements **BEST** describes a legend as used in chart tools in a spreadsheet software?
    A.   A key that explains the meaning of the data in a chart or graph
    B.   Provides additional information about a data marker
    C.   Whole area covered by a chart
    D.   A grid in a chart that contains the numeric data used to create the chart   (1 mark)

30. The following are types of a relationship among tables in a database **EXCEPT,**_____.
    A.   self-referential
    B.   one to one
    C.   one to two
    D.   one to many   (1 mark)

SECTION II (70 MARKS)

31. Create a word processing document named "Question 31" and use the document to save solution to questions (a) to (b) below.

    (a)   Use a word processor to perform the following:

           (i)   Create the following document.   (3 marks)

    Mafanikio mini mart – Elevate customer service

    Mafanikio mini mart seeks to elevate its customer service and operations by implementing an enterprise resource planning system. The system will improve interactions and connectivity with both internal staff and its suppliers, ensuring efficiency in its operations, as well as a

reliable supply chain. Despite challenges like inaccuracies in financial records and operational inefficiencies, the mini mart is tackling online hurdles such as billing errors, order authentication and delivery delays. With a strong offline retail presence, the mini mart's strategy is to leverage social media for brand promotion, customer engagement and order fulfillment.

      (ii)   Add a drop cap to drop the first letter in the paragraph by 3 lines. (2 marks)

      (iii)   Add a footnote to reference the words "social media". The footnote should contain the following: Instagram, X, YouTube (2 marks)

      (iv)   Add a center-aligned header with the following information: info@mafanikio.com. (1 mark)

      (v)   Insert a diagonal watermark labelled "MAFANIKIO". (2 marks)

(b)   In a month, Mafanikio mini mart purchase goods from various suppliers.

      (i)   On new page, create the table as shown below. (3 marks)

No.	Supplier Name	Item Name	Unit	Quantity	Cost per unit	Total Cost (Sh.)
implied	**Mafanikio Minimart Monthly Supply Details**					
10100	Mala Dairies	Dairy goods	Cartons	2,455	125	
10104	Jamii Butcheries	Beef	KG	368	600	
10109	Fahali Refineries	Edible Oils	Litres	1,750	300	
10114	Freshy Fruits	Assorted Fruits	Boxes	72	1,250	
10125	Kiam Packers	Beverages	Cartons	25	2,355	
					Total	

      (ii)   Add the record below in its correct sequence on the table above. (2 marks)

      (iii)   Using your Word processor, calculate the total cost. (3 marks)

      (iv)   Calculate the total cost of purchases for the month. (2 marks)

Save "Question 31" document and upload.

(Total: 20 marks)

32.   Create a word processing document named "Question 32" and use the document to save solution to questions (a) to (h) below.

Use a spreadsheet software to perform the following:

(a)   Create a workbook named "Hazelar College" containing a worksheet with the following details. (2 marks)

	A	B	C	D	E	F	G
1	HAZELAR COLLEGE						
2	Student ID	First Name	Last Name	Date of enrollment	Unit Code	Test Name	Grade (Marks)
3	HZ001	Lynn	Baraka	4/9/2023	SAT511	Scholastic Assessment Test	1000
4	HZ002	Nelson	Wema	11/9/2023	GMAT210	Graduate Management Admission Test	700
5	HZ003	Rose	Neema	4/9/2023	GMAT210	Graduate Management Admission Test	600
6	HZ004	Hawi	Jamala	8/9/2023	SAT511	Scholastic Assessment Test	900
7	HZ005	Ruth	Pendo	4/9/2023	GRE101	Graduate Record Examinations	310
8	HZ006	Joseph	Chiku	6/9/2023	GRE101	Graduate Record Examinations	320
9	HZ007	Paul	Jabali	4/9/2023	SAT511	Scholastic Assessment Test	1100
10	HZ008	Nadia	Konde	5/9/2023	GMAT210	Graduate Management Admission Test	550
11	HZ009	Laura	Ahadi	4/9/2023	SAT511	Scholastic Assessment Test	950
12	HZ010	Lewis	Jasiri	11/9/2023	SAT511	Scholastic Assessment Test	1000

(b)   Filter the records to display only students who sat for the GRE 101 test. Capture a screenshot to display your answer.   (2 marks)

(c)   Display all the records.   (2 marks)

(d)   Insert a column between Last Name and Date of enrollment. Add "Student Name" as the heading for the new column. Use a formula to combine the First Name and Last Name. Take a screenshot to display your answer.   (2 marks)

(e)   Remove the formulas from the "Student Name" column in order to display the Student Names as values. Delete the "First Name" and "Last Name" columns.   (2 marks)

(f)   Use a pivot table to display the details of all the students who sat for Graduate Management Admission Test. Save the pivot table in a new sheet named "Graduate Management Admissions".   (3 marks)

(g)   Use a pivot table to display the details of all the students who sat for the Scholastic Assessment Test. Sort by Grades in descending. Save the pivot table in a new sheet named "Scholastic Assessment Test".   (3 marks)

(h)   Create a pie chart to show the total grades for each test. Add data labels. Add the chart title "HAZELAR COLLEGE SEM1 2024". Save the pivot table in a new sheet named "Pivot table".   (4 marks)

Save "Question 32" document and upload.

(Total: 20 marks)

33.   Create a document named "Question 33" and use the document to save solution to questions (a) to (f) below.

(a)   Use a presentation software to create a presentation using the data given below: (10 marks)

Slide	Layout	Title	Subtitle
1	Title slide	BAHATI MICROFINANCE	A LEADING LENDER
2	Title slide	VISION	To be a leading microfinance institution that offers ready-made and tailored solutions
3	Title slide	MISSION STATEMENT	To offer financial freedom to our clients through our product offering
4	Title slide	OUR PRODUCTS	We offer: • Asset loans • Consumer loans • Education loans • Agribusiness loans
5	Blank	ORGANOGRAM	Draw the organisation chart below

ORGANOGRAM
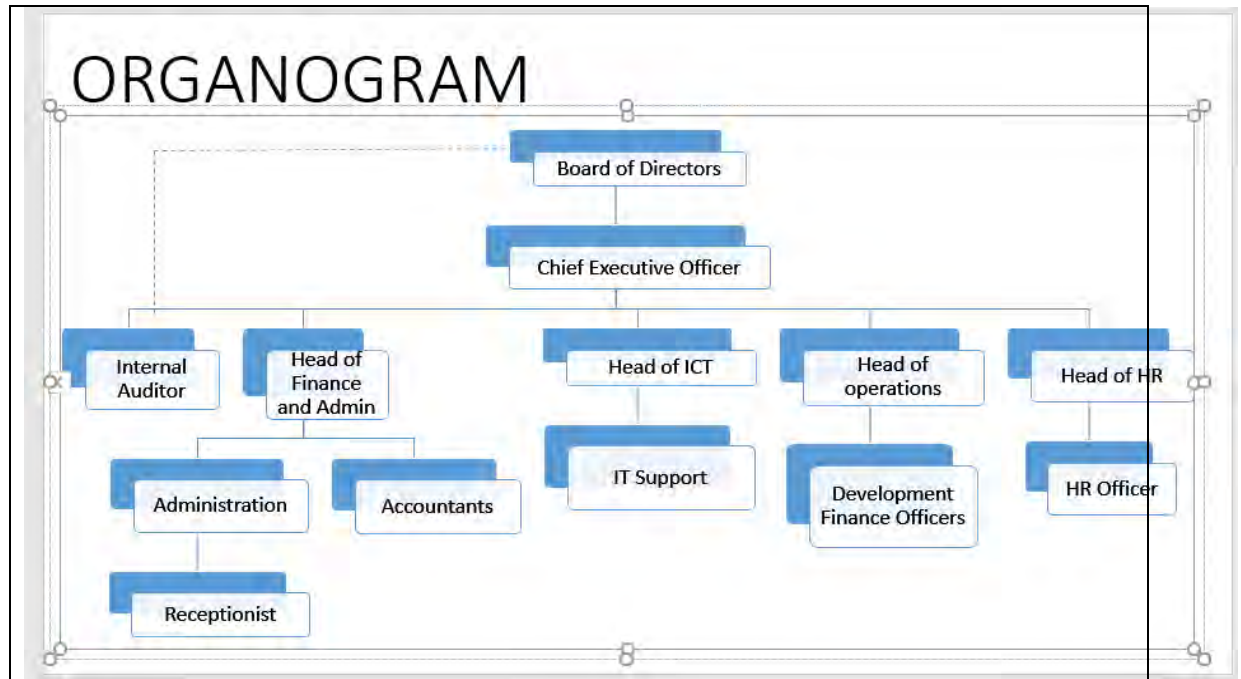
(b)   Format the titles appearing on each slide to font Calibri light and size 60.   (2 marks)

(c)   Format the subtitles appearing on each slide to font Comic Sans MS and size 24.   (2 marks)

(d)   Insert the footer "BAHATI MICROFINANCE" and apply to all slides.   (2 marks)

(e)   Apply a theme of your choice to all slides.   (2 marks)

(f)   Apply push transition to all slides.   (2 marks)

Save "Question 33" document and upload.

(Total: 20 marks)

34.   Use a desktop publishing software to perform the following task:

Nelius and Maloe are planning for their wedding scheduled to be on 24 August 2024. They are soliciting funds to help meet their wedding expenses.

Required:
(a)   Create an exclusive contribution card for this purpose.

(b)   The card should include:

(i)   Names and contact information of the would-be Bride and Groom

(ii)   Paybill No 222111 and Nelius Maloe

(iii) A suitable photo for the function

(iv)   An appeal

(v)   Wedding budget

(vi)   Theme colour is Blue

Make it as attractive as possible.

Save "Question 34" document and upload.   **(Total: 10 marks)**

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DIPLOMA IN DATA MANAGEMENT AND ANALYTICS (DDMA)

DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINISTRATION (DCNSA)

LEVEL I

COMPUTER INFORMATION SYSTEMS APPLICATIONS

TUESDAY: 23 April 2024. Afternoon Paper.   **Time Allowed: 3 hours.**

Answer ALL questions. This paper has two (2) sections. SECTION I has thirty (30) Multiple Choice Questions of thirty (30) marks. SECTION II has four (4) practical questions of seventy (70) marks. Marks allocated to each question are shown at the end of the question.

Required resources:
- **A computer**
- **Ms office suite 2016**

SECTION I (30 MARKS)

1. Which one of the following can be used to change an image so that it faces the opposite direction?
   - A.   Drag
   - B.   Split
   - C.   Flip
   - D.   Tip   (1 mark)

2. In a document, the appearance and shape of the letters and special characters is known as_____.
   - A.   Image
   - B.   Font
   - C.   Tabs
   - D.   Key   (1 mark)

3. In a Database management software, which type of queries are useful for summarising data by category or group?
   - A.   Select queries
   - B.   Crosstab queries
   - C.   Action queries
   - D.   Precise queries   (1 mark)

4. Which one of the following can be adjusted in order to view the entire document on the screen at once?
   - A.   Reset
   - B.   Resize
   - C.   Zoom
   - D.   Autofit   (1 mark)

5. Which one of the following formats allows users to view a worksheet using a browser?
   - A.   XML
   - B.   PDF
   - C.   HTML
   - D.   HTTP   (1 mark)

6. In a spreadsheet, what is the function of COUNTA?
   A. To count the number of cells in a range containing numbers
   B. To count the number of non-blank cells in the selected range
   C. To count the number of non-blank cells that meet the given condition in a range
   D. To count the number of cells that meet the given condition in a database (1 mark)

7. Which one of the following formatting effects has been applied to x in the example 10_x?
   A. Superscript
   B. Strikethrough
   C. Small caps
   D. Subscript (1 mark)

8. Which one of the following types of a slide is designed to fit into a user's specific need?
   A. Blank slide
   B. Outline slide
   C. Custom slide
   D. Notes slide (1 mark)

9. What is the name of the folder structure C:/Users/Public/Documents?
   A. File
   B. String
   C. Array
   D. Path (1 mark)

10. Which one of the following buttons can be used to view new content on your website after an update?
   A. Refresh
   B. Status
   C. Import
   D. History (1 mark)

11. What happens when a user enters the cell reference K$4?
   A. The column reference changes because it is absolute but the row reference does not change because it is relative
   B. The column reference does not change because it is absolute but the row reference changes because it is relative
   C. Both column and row references are relative, and when copied to another cell, they adjust to reflect the new location
   D. The column reference changes because it is relative but the row reference does not change because it is absolute (1 mark)

12. Which feature in a presentation software allows a user to designate desired start time and end time on a video?
   A. Trim video
   B. Overlay
   C. Caption
   D. Background (1 mark)

13. The first page that appears in a website is referred to as?
   A. Landing page
   B. Homepage
   C. Storefront
   D. Cover page (1 mark)

14. Which one of the following is defined as "a set of unified formats for fonts, colors and graphics"?
   A. Thread
   B. Style
   C. Links
   D. Theme (1 mark)

15. What is the name of the operator < >?
    A.   Greater than
    B.   Not AND
    C.   Exclusive OR
    D.   Not equal to   (1 mark)

16. Which one of the following **BEST** describes an embedded chart in a spreadsheet?
    A.   A chart drawn on its own worksheet apart from the data
    B.   A pre-inserted chart used to explore complicated data
    C.   A chart drawn on the same worksheet as the data
    D.   A pre-installed chart used to highlight different datasets   (1 mark)

17. Which one of the following is key disadvantage of e-mail communication?
    A.   A replacement for letters, memos, faxes as permitted by the company
    B.   Communication with someone who is not available at that time
    C.   Email messages may be used as evidence in forensic analysis
    D.   May lead to avoidance of personal contact, such as meetings   (1 mark)

18. Which one of the following is an example of an aggregate function?
    A.   AVERAGE
    B.   UNICODE
    C.   XLOOKUP
    D.   WEEKDAY   (1 mark)

19. Which one of the following is **BEST** described as the information that describes and explains data and provides context with details such as the source, type and owner?
    A.   Repository
    B.   Directory
    C.   Metadata
    D.   Characters   (1 mark)

20. In Excel, which type of error indicates there is an issue with the syntax of the entered formula, often caused by a misspelled function or an incorrect argument?
    A.   #N/A error
    B.   #NAME? error
    C.   #REF! error
    D.   ##### error   (1 mark)

21. In a word processor, the term whose purpose is to make it more difficult for the original image to be copied or used without permission is known as _____.
    A.   Typeface
    B.   Word Art
    C.   SmartArt
    D.   Watermark   (1 mark)

22. In a database management software, what is defined as a column or columns of data in one table that refers to the unique data values often the primary key in another table?
    A.   Composite
    B.   Primary
    C.   Home
    D.   Foreign   (1 mark)

23. The following are examples of application software; SPSS, Excel, FoxPro, Word, Quattro Pro, QuickBooks, LibreOffice calc, SQL and WordStar.
    Identify **TWO** examples of database management software (DBMS).
    A.   Excel and LibreOffice calc
    B.   FoxPro and SQL
    C.   FoxPro and Quattro Pro
    D.   Word and WordStar   (1 mark)

24. Which one of the following statements **BEST** defines a palette in a presentation software?
   A. It refers to the set of colors chosen to be used throughout the slide deck
   B. It is a pre-designed layout for a slide deck
   C. The process of making objects or text in your slide deck appear to move
   D. It refers to the unmarked portions of a slide, which are free of text, images or other visual elements
   (1 mark)

25. In a spreadsheet, which of the statements below **BEST** defines a function?
   A. It is a predefined formula that performs a specific calculation by using values a user input as arguments
   B. It is an expression that calculates values in a cell or in a range of cells
   C. It means there is a fixed point of reference applied to a cell or a formula
   D. It refers to a value or a cell reference that is passed to a function**,** formula**,** or macro (1 mark)

26. The following are things that a new paragraph automatically inherits from the previous paragraph, **EXCEPT**?
   A. Alignment
   B. Shapes
   C. Spacing
   D. Font size (1 mark)

27. In a desktop publish software, which is the term that defined the extra space allowance used to accommodate the binding in books and magazines known as?
   A. Gutter
   B. Margin
   C. Template
   D. Crop (1 mark)

28. What are charts used for in a spreadsheet?
   A. To enable one to perform calculations such as addition, subtraction, multiplication and division
   B. To help perform mathematical, statistical and logical operations
   C. To provide a visual representation of your data, making it easier to analyse
   D. To filter a range of data based on criteria you define (1 mark)

29. Which one of the following is **NOT** a benefit provided by styles in a word processing application?
   A. Styles allow a user to type a document faster
   B. Styles application means easy Table of Contents generation
   C. Styles cascade and so when a user makes one change to a document they are effected in all
   D. Templates are much more efficient and kinder to others if they are based on styles (1 mark)

30. In database management system, which type of view provides access to create or modify tables, forms or any other database objects?
   A. Datasheet
   B. Design
   C. Form
   D. Query (1 mark)

SECTION II (70 MARKS)

31. Use a word processor to create a document called "Question 31" and use it to save your solution to questions (a) to (d).

   (a) Create and format the document shown below and save it.   Do not type the placeholders enclosed in < and > symbols. (8 marks)

   ### GADAMA SCHOOL
   www.gadama.co.ke   **Tel**: 254-709-000-000
   info@gadama.co.ke

   Dear <Title> <First_Name> <Last_Name>,
   This is to notify you that students will resume from mid-term break on **26th June, 2024** and not as earlier communicated.

   To:

   <TITLE>,
   <FIRSTNAME>
   <LASTNAME>,
   <CITY>,
   <EMAIL
   ADDRESS>

   We apologise for any inconvenience.
   Thank you for your continued support.
   Warm regards,

   (b) Use mail merge, create the recipients list shown below and save as "Recipients list". Capture a screen shot of the data source showing entered recipients. (4 marks)

Title	FirstName	LastName	City	Email address
Dr.	Herman	Kabi	Mombasa	hkabi@kabi.edu
Ms.	Luca	Luna	Nairobi	lluca@luca.com
Mr.	Gianna	Ombi	Kisumu	gombi@ombi.co.ke
Mrs.	Mila	Theo	Mombasa	mtheo@theo.co.za

   (c) Use the data in question 31(a) and (b) to merge the two documents. Capture sample output for the first recipient. (6 marks)

   (d) Set the left and right margins to 0.75-inch and top and bottom margins to1-inch. Capture and save a screenshot to demonstrate how you performed this task. (2 marks)

   Save "Question 31" and upload. **(Total: 20 marks)**

32. (a) Create a workbook called "Question 32" and populate it with the data shown below. (3 marks)

|	A	B	C	D	E	F
1			DANKE'S DINER			
2	Date	Customer	Order	Quantity	Amount (Ksh.)	Total
3	1st March	Anisa	Matoke	2	200	
4	2nd March	Lucien	French fries	5	120	
5	3rd March	Matilda	Masala fries	3	180	
6	3rd March	Hannah	Bhajia	4	220	
7	3rd March	Esther	1/4 chicken	5	300	
8	6th March	Jesse	1/2 chicken	4	420	
9	7th March	Ambrose	Cocktail juice	5	250	
10	7th March	Steve	Mango juice	4	250	
11	9th March	Pam	Cocktail juice	3	250	
12	10th March	Sam	Bhajia	6	220	
13	10th March	Lucy	1/4 chicken	4	300	
14	12th March	Terry	1/2 chicken	2	420	
15	13th March	Robin	Bhajia	1	220	
16	14th March	Moses	Matoke	1	200	

(b) Calculate the total amount that each customer spent at Danke's diner. (5 marks)

(c) Rank the totals to show the values in their ascending order. (5 marks)

(d) Use an appropriate spreadsheet feature to extract data where the customer ordered Bhajia. Copy the output to cell I7. (5 marks)

(e) Use a function to sum the totals for "cocktail juice". Place the answer in cell I12. (2 marks)

(f) Use a function to sum the totals for "3rd March". Place the answer in cell I14. (2 marks)

(g) Insert a 2D bar chart showing totals against Order. (3 marks)

Save "Question 32" workbook and upload.

(Total: 25 marks)

33. You are required to use Desktop publishing software to create a 2-paged publication consisting of a calendar and a letter addressing the recipients. Your final result will be an 8-paged merged publication addressed to all the recipients.

(a) Use Desktop publishing software to create the following April 2024 calendar and save it as "Question 33".
(9 marks)
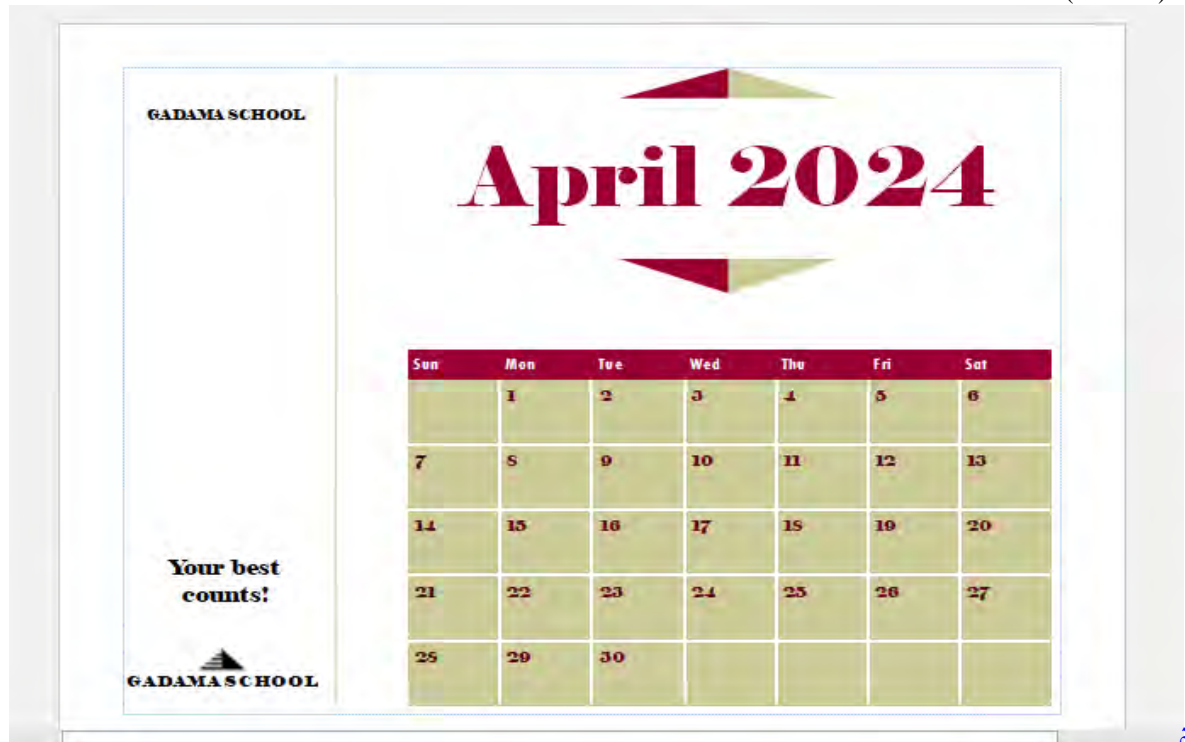
(b) Insert a new page (Page 2) in your publication and add the following letter. Use the address fields <FirstName> <LastName> from the recipient list below: (7 marks)

Title	First name	Last name
Dr.	David	Okoth
Mr.	Alice	Chemutai
Mr.	Alex	Kamau
Dr.	Mary	Kabi

Dear «First Name» «Last Name»,
Please receive our 2024 calendar.

Kind regards,
Principal

(c)   Merge the publication using the recipient list in Question 33(b) above. Save it as "Question 33 Merged Publication" and upload.   (9 marks)

Save "Question 33" document and upload.   **(Total: 25 marks)**

……………………………………………………………………..

DIPLOMA IN DATA MANAGEMENT AND ANALYTICS (DDMA)

DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINISTRATION (DCNSA)

LEVEL I

COMPUTER INFORMATION SYSTEMS APPLICATIONS

TUESDAY: 5 December 2023. Afternoon Paper.   **Time Allowed: 3 hours.**

Answer ALL questions. This paper has two (2) sections. SECTION I has thirty (30) Multiple Choice Questions of thirty (30) marks. SECTION II has four (4) practical questions of seventy (70) marks. Marks allocated to each question are shown in the question.

Required resources:
- **A computer**
- **Ms office suite 2016**

SECTION I (30 MARKS)

1.   Which of the following initiates a device's boot process, initialises its hardware and establishes a solid foundation for the software to operate on?
     A.   Edgeware
     B.   Firmware
     C.   Groupware
     D.   Shareware   (1 mark)

2.   Which of the following tools can be utilised while creating presentation slides to maintain color consistency?
     A.   Eyedropper
     B.   Slide effects
     C.   Reflection
     D.   Transform   (1 mark)

3.   Which of the following stores information concerning the order of the records in the database and can be used for sorting records?
     A.   Tuple
     B.   Fields
     C.   Index
     D.   Files   (1 mark)

4.   Which of the following refers to the action of moving a paragraph or a section of text further to the left, effectively reducing the space or margin on the left side of the text?
     A.   Right indent
     B.   Decrease indent
     C.   Increase indent
     D.   Custom indent   (1 mark)

5.   When using a spreadsheet application, which of the following cell addressing changes when copied?
     A.   =A5
     B.   =sum(English)
     C.   =A2
     D.   = Count   (1 mark)

6. Which of the following features can be added to a presentation in order to direct audience to your contact information?
   A. Variants
   B. QR codes
   C. Lookup
   E. Curation (1 mark)

7. Which one of the following Excel features keeps rows and columns visible while the rest of the worksheet scrolls based on current selection?
   A. Freeze pane
   B. Merge Cell
   C. Hide window
   D. Split cell (1 mark)

8. Which of the following can be used to temporarily remove or hide unwanted data from the database screen?
   A. Cropping
   B. Filters
   C. Brush
   D. Erase (1 mark)

9. Which of the following is used to replicate design and layout elements across multiple pages in a publication?
   A. Parent page
   B. Layout mvc
   C. Master page
   D. Dashboard (1 mark)

10. Which of the following can be used to merge records between two tables in a database?
    A. Group clause
    B. Link clause
    C. Join clause
    D. Add clause (1 mark)

11. Which of the following best describes the use of the "Watermark" feature in a document?
    A. It is used to add an image or pattern behind the content on the page
    B. It is used to add a manufacturer's design behind the content on the page
    C. An image used to identify a particular company's products or services
    D. A form of intellectual property that is used to identify the manufacturer (1 mark)

12. Which of the following spreadsheet tools allows you to aggregate, summarise, and display patterns and trends in your data?
    A. Data models
    B. Pivot tables
    C. Timelines
    D. Flash fill (1 mark)

13. Views are commonly used to display documents when using word processor application software. In which view is a user allowed to focus on the content of the document without distractions like headers, footers or page formatting?
    A. Normal view
    B. Print layout view
    C. Page layout view
    D. Draft view (1 mark)

14. Which of the following spreadsheet utilities is used to move from one workbook to another?
    A. Zoom selection
    B. Switch windows
    C. Freeze pane
    D. Smart lookup (1 mark)

15. A database or repository that houses a collection of data and is created and optimised for a certain set of analytical or reporting requirements is referred to as:
    A.   Macro
    B.   Template
    C.   View
    D.   Data mart   (1 mark)

16. A validation rule is one way to restrict input in a table field or a control on a form. Which of the following ensures that data entered into a field within a table cannot be repeated in other records of the same table?
    A.   Field validation rule
    B.   Uniqueness Check
    C.   Record validation message
    D.   Record validation rule   (1 mark)

17. Which of the following themes can be used to reduce eye strain for users?
    A.   Dark mode
    B.   Color mode
    C.   White mode
    D.   Light mode   (1 mark)

18. Which of the following tools allows for quick access to current information and allows for data analysis and visualisation?
    A.   Customisation
    B.   Location
    C.   Metadata
    D.   Dashboards   (1 mark)

19. Which of the following statements **BEST** describes how gridlines are used in word processing?
    A.   To align objects with others in a document
    B.   They act as a tour guide for your document
    C.   To increase and decrease the document's view
    D.   View the appearance of the document when printed   (1 mark)

20. Relationship relates to a connection or association between two tables in a relational database. Which type of relationship entails a single record in one table can be related to multiple records in another table?
    A.   One-to-One (1:1)
    B.   Many-to-Many (M:N)
    C.   One-to-Many (1:N)
    D.   Many-to-One (N:1)   (1 mark)

21. Which of the following functions is used to return the current date and time as a serial number?
    A.   NETWORKDAYS function
    B.   NOW function
    C.   NTL function
    D.   TIME function   (1 mark)

22. Which of the following is used to import data from a web source into a worksheet?
    A.   WEBSERVICE
    B.   NETSERVICE
    C.   FILTERXML
    D.   WEBLOOKUP   (1 mark)

23. Which of the following animation styles enables you to give text and objects on your presentations more depth and perspective?
    A.   Chart Animations
    B.   SmartArt Animations
    C.   3D animations
    D.   Animation Painter   (1 mark)

24. Which of the following is used to join several data sources, shape, transform data then load it into an office program for automation, reporting, or analysis?
    A. Macros
    B. Help function
    C. CSV files
    D. Power query (1 mark)

25. Which of the following is made possible by splitting windows in a word processor?
    A. Opens a second window for the current document
    B. Stack open windows so that the user can see all of them
    C. View two sections of the document at the same time
    D. Open a new document and work on it concurrently (1 mark)

26. Which of the following can be used to extend the capabilities of your presentation by using features from third party programs?
    A. Add-ins
    B. Built-ins
    C. Trust center
    D. Preset note (1 mark)

27. Which of the following key combinations closes the current document in a Word document?
    A. Ctrl + R
    B. Ctrl + T
    C. Alt + H
    D. Ctrl + W (1 mark)

28. A computer that is completely housed in a flat touch screen and is operated by the user's fingertip or stylus is known as?
    A. Netbook
    B. Laptop
    C. Tablet
    D. Digital (1 mark)

29. Which of the following **BEST** describes the transpose feature in spreadsheets?
    A. It is used to shift the orientation of horizontal cells into vertical cells and vice versa
    B. A form feature that automatically creates all the controls and positions them in a cell
    C. To automatically enter a series of data, either numbers or cells into several cells
    D. To calculate the future value of a fixed investment earning a fixed interest over time (1 mark)

30. Which of the following refers to a master slide that is specifically used for formatting and designing the speaker's notes?
    A. Handouts page
    B. Notes Master
    C. Slide sorter
    D. Slide layout (1 mark)

SECTION II (70 MARKS)

31. (a) Create a blank database named Question 31.

    In the database you have created, design a table named students with the following fields: (4 marks)

Field Name	Data Type
Registration Number	Number
Student Name	Short Text
Course ID	Short Text
Score	Number

    (b) Set the Registration Number as the primary key. (1 mark)

(c)   Insert the Students data shown below.   (4 marks)

Registration Number	Student Name	Course ID	Score
1001	Mercy	ICS	60
1002	James	ITB	59
1003	Herbert	DE	47
1004	Jones	DE	74
1005	Kayla	DT	70

(d)   Create the following table in design view and save it as **Courses**.   (2 marks)

Courses Table

Field Name	Data Type
Course ID	Short Text
Course Name	Short Text

(e)   Set the Course ID as the primary key.   (1 mark)

(f)   Insert the Courses data shown below.   (4 marks)

Course ID	Course Name
ITC	Introduction to Computing
ITB	Introduction to Banking
DE	Diploma in Education
DT	Diploma in Taxation

(g)   Using **all** the data from the Students table and "**Course Name"** field from the Courses table, create a query to display all details of the students who scored 60% and above. The **Course Name** field should be displayed after the Course ID.

Run the query and save it as "**Pass**".   (4 marks)

Save "Question 31" database and upload.

(Total: 20 marks)

32.   (a)   Create a workbook named Question 32 containing a worksheet with details below: (2 marks)

Barbers	Jan (Ksh.)	Feb (Ksh.)	Mar (Ksh.)	Total	Commission
Lucas	29,000	32,000	32,000		
Noah	27,000	28,000	30,000		
Liam	28,000	28,000	28,000		
Ethan	29,000	32,000	32,000		
Ryan	28000	28000	28000		
Jan	27,000	29,000	30,000		
Commission:40%					

Required:

(i)   Add a new row before row 1 and enter the heading "NIFTY SHAVE BARBER SHOP" in the new row one. Format the heading to Comic Sans MS, and Font 22.   (2 marks)

(ii)   Merge and center the heading to fit cells A1 to F1.   (1 mark)

(iii)   Add a row before row 2 and enter the subheading "QUARTER 1" in cell A2. Merge and center the subheading to fit cells A2 to F2.   (1 mark)

(iv)   Using an appropriate formula, calculate the Totals for all Barbers.   (3 marks)

(v)   Using an appropriate formula, calculate the Commission for all Barbers.   (3 marks)

(b)   Click on **Sheet2** and create the following table in the appropriate cells.

	A	B	C	D	E	F
1	BARBER SHOP- DAILY WAGE (KSH.)					
2	Jan	Feb	Mar	Apr	May	Jun
3	1500	1100	700	1000	1500	1000

(i)   Use the transpose function to transfer cells from **A2 to F3** to cells **H2 to I7**.   (2 marks)

(ii)   Using an appropriate formula, calculate the Maximum wage for the Barber shop.

Put the answer in **cell I9**.   (3 marks)

(iii)   Using an appropriate formula, sum only the values where the daily wage is larger than Ksh. 1000.

Place the answer in **cell I10**.   (3 marks)

Save "Question 32" workbook and upload.

(Total: 20 marks)

33.   Using a presentation program, prepare a presentation named Question 33 containing the slides below.
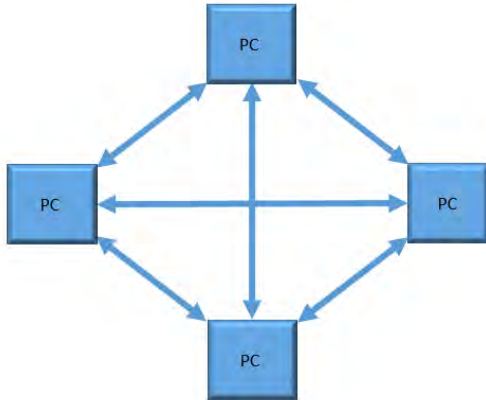
Slide 1
Title slide: Computer Network

Slide 2
Title and Content: Peer-to-peer network
- ➢   Each user administers their own workstation and resources on it.
- ➢   A workstation can act both as a client and server.
- ➢   There is no dedicated server.

Slide 3
Title and Content: Peer-to-peer network

Slide 4
Title and Content: Client server network
- ➢   One computer plays the role of a server(s).
- ➢   Clients communicate with servers by making requests that are transmitted over the network to the appropriate server processor.

(6 marks)

(a)   Create a master slide with the image below as the logo on the bottom right of each slide.   (4 marks)

(b)   Apply "Wisp" theme to the entire slide.   (2 marks)

(c)   Ensure that the title appearing on each slide is in font "Arial black" with size 32.   (2 marks)

(d)   Apply animation style of your choice for text and objects.   (2 marks)

(e)   Omit background graphics on Slide 4 only.   (4 marks)

Save "Question 33" presentation and upload.

(Total: 20 marks)

34.   Using Desktop Publishing software, create a publication named Question 34 with the details shown below.

(6 marks)

(a)   Set the paper size to B4.   (1 mark)

(b)   Set the orientation to landscape.   (1 mark)

(c)   Insert the header "CLIENT SERVER ARCHITECTURE".   (2 marks)

Save "Question 34" publication and upload.

(Total: 10 marks)

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DIPLOMA IN DATA MANAGEMENT AND ANALYTICS (DDMA)

DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINISTRATION (DCNSA)

LEVEL I

COMPUTER INFORMATION SYSTEMS APPLICATIONS

TUESDAY: 22 August 2023. Afternoon Paper. **Time Allowed: 3 hours.**

Answer ALL questions. This paper has two (2) sections. SECTION I has thirty (30) Multiple Choice Questions of thirty (30) marks. SECTION II has practical questions of seventy (70) marks. Marks allocated to each question are shown at the end of the question.

Required resources:
- **A computer**
- **Ms office suite 2016**

SECTION I (30 MARKS)

1. Which function key is used to insert absolute referencing in a formula when using a spreadsheet application?
   A.   F1
   B.   F2
   C.   F3
   D.   F4   (1 mark)

2. Which of the following extensions is **NOT** properly matched with the specified file?
   A.   Picture - Student.jpg
   B.   Web page- Student.html
   C.   Ms Excel- Student.mdb
   D.   Compressed file- Student.zip   (1 mark)

3. Which of the following consists of cells in which you can enter and calculate data?
   A.   Workbook
   B.   Macros
   C.   Spreadsheet
   D.   Worksheet   (1 mark)

4. Which of the following files take up less storage space and can be transferred to other computers faster?
   A.   Directory
   B.   Binary
   C.   Zipped
   D.   Special   (1 mark)

5. Which of the following keys can be used to open an existing database?
   A.   Ctrl+F12
   B.   Ctrl+N
   C.   Ctrl+F4
   D.   Ctrl+X   (1 mark)

6. Which of the following is **NOT** a role of advertisements in desktop publishing?
    A. To increase sales
    B. To guide the user
    C. To promote a brand
    D. To attract the user   (1 mark)

7. What-if analysis entails the process of changing the values in cells to see how those changes will affect the outcome of formulas on the worksheet. Which of the following is **NOT** associated with it?
    A. Data tables
    B. Goal seek
    C. Scenarios
    D. Validation   (1 mark)

8. Which of the following is a proofing tool used in Word processing?
    A. Word count
    B. Translate
    C. Footnotes
    D. Citations   (1 mark)

9. Which of the following options in word document handles the way paragraphs are distributed in our document?
    A. Styling and slicing
    B. Layout and design
    C. Columns and breaks
    D. Formatting and review   (1 mark)

10. Which of the following fields can be used as a primary key for a college database?
    A. Date of birth
    B. Student ID
    C. First name
    D. Last name   (1 mark)

11. Which of the following **BEST** explains the use of validation rules?
    A. Restrict the type of data entered into a record, field, or control
    B. Specify a table or query as the valid data source in a given database
    C. Select the type of markup and data to show in the database
    D. Export the validated data to a different platform or program   (1 mark)

12. What is the use of landscape orientation in a word processing application?
    A. To change the size of your document to Portrait
    B. To distribute text vertically
    C. To distribute text horizontally
    D. To use pictures instead of text   (1 mark)

13. Which name is given to logical dependency of a foreign key on a primary key?
    A. Referential integrity
    B. Enforce integrity
    C. Cascade deletes
    D. Cascade Update   (1 mark)

14. The "delay" option in animation pane of a presentation application allows you to?
    A. Adjust speed of the animation
    B. Set the duration of the animation
    C. Control the order of animations on the slide
    D. Specify the time before an animation starts   (1 mark)

15. Which of the following refers to the number of bits per pixel on a computer monitor to represent a specific colour?
    A. Resolution
    B. Colour scheme
    C. Colour depth
    D. Bit scheme   (1 mark)

16. Which of the following is a function tool that lets you quickly locate and substitute characters such as a word or phrase, spaces and paragraphs, and punctuation marks?
    A.   Navigation pane
    B.   View side by side
    C.   Go To
    D.   Find and Replace

    (1 mark)

17. Which of the following can be used to quickly apply the same formatting such as color, font style and border style to multiple pieces of text or graphics?
    A.   Slide sorter
    B.   Animation pane
    C.   Design ideas
    D.   Format painter   (1 mark)

18. Which of the following spreadsheet actions **CANNOT** be reversed by using the undo button?
    A.   Deleting a worksheet
    B.   Deleting a column
    C.   Deleting a row
    D.   Formatting a table   (1 mark)

19. Which of the following is **NOT** a feature of desktop publishing software?
    A.   Mail merge
    B.   Data analysis
    C.   Borders and accents
    D.   Pictures and graphics   (1 mark)

20. Which of the following keys can be used to track changes on and off in a word processing application?
    A.   Ctrl + Shift + X
    B.   Ctrl + Shift + F
    C.   Ctrl + Shift + E
    D.   Ctrl + Shift + D   (1 mark)

21. Which of the following **BEST** describes kerning in desktop publishing?
    A.   Adjustment of letter spacing between two characters
    B.   Adjustment of letter spacing in a range of selected text
    C.   Adjustment of letter spacing between lines of text
    D.   Adjustment of letter spacing between two cells   (1 mark)

22. Which of the following fields would **NOT** be used as an entity for a student database application?
    A.   Performance
    B.   Date
    C.   Fee
    D.   Accommodation   (1 mark)

23. Which of the following tools can be used for editing images in graphics software?
    A.   Flash autofill
    B.   Clipping mask
    C.   Export mask
    D.   Master pages   (1 mark)

24. A cloud infrastructure shared by several organisations having common concerns is referred to as_____?
    A.   Community cloud
    B.   Private cloud
    C.   Hybrid cloud
    D.   Public cloud

    (1 mark)

25. Assuming value 0.128912 has been entered in a spreadsheet cell B2, which of the formula below will display the values in 2 decimal places?
    A.   B2 = DECIMAL (0.B2,2)
    B.   B2 = AVERAGE (B2,2)
    C.   B2 = ROUND (0.128912,2)
    D.   B2 = ROUND (B2,2)   (1 mark)

26. What happens to a slide that is hidden during presentation?
    A.   Appear once the presentation is complete
    B.   Not appear when the user is presenting
    C.   Be deleted from the user's presentation
    D.   Moves to the beginning of the presentation   (1 mark)

27. Which of the following **BEST** describes the role of master pages in desktop publishing software?
    A.   They contain the elements that the user wants to repeat on multiple pages in a publication
    B.   They contain placeholders for adding names and addresses on the whole publication
    C.   They are used to align objects in the publication and allow objects to snap to guides
    D.   They can be used to replace the current publication or create a new one   (1 mark)

28. Which of the following does **NOT** apply when performing cropping objects in a document?
    A.   Removing the parts of an image surrounding the selection.
    B.   Removing distractive background elements
    C.   Creating focus on your desired object in the image
    D.   Changing original image resolution   (1 mark)

29. Which of the following automatically records the time and presents slides in an orderly manner to keep them on the screen for the set time?
    A.   Record slide show
    B.   Play narrations
    C.   Rehearse timings
    D.   Use timings   (1 mark)

30. Which of the following can be used to automatically update the affected values when changes are made to the original data in one worksheet?
    A.   Link sheets
    B.   Lock cells
    C.   Check cells
    D.   Style sheets   (1 mark)

31.   Consider the content provided below.

Slide 1:

COMPETITIVE STRATEGIES: USING TECHNOLOGY TO OBTAIN COMPETITIVE ADVANTAGE

Slide 2:

COST LEADERSHIP

* Cut down labor costs
* Lower communication costs

Slide 3:

INNOVATION

* Use information technology to reengineer business processes
* Establish new alliances

Slide 4:

GROWTH

* Electronic commerce
  ✓ Click and mortar
  ✓ Pure play

* Electronic learning
  ✓ Distance learning
  ✓ Blended learning

Slide 5:

ALLIANCES

* Inter-organisational systems
* Virtual organisations

Required:

|		
E.	Create a presentation named "Question 31" from the content provided above.	(5 marks)
F.	Apply droplet theme to all the slides.	(2 marks)
G.	Insert a fixed date 08/22/2023 on all slides.	(2 marks)
H.	Insert slide numbers on all slides.	(2 marks)
I.	Insert a footer "COMPETITIVE STRATEGIES" on all slides.	(2 marks)
J.	Insert animation "Swivel" on all the slides.	(2 marks)
K.	Create a handout of blank lines next to slides.	(2 marks)
L.	Outline the steps that one would use to convert a presentation file into a pdf document.	(3 marks)

Save "Question 31" presentation and upload it.

(Total: 20 marks)

32. Use the content below to answer the question that follow.

The untapped potential of the African sun!

By James Stewart
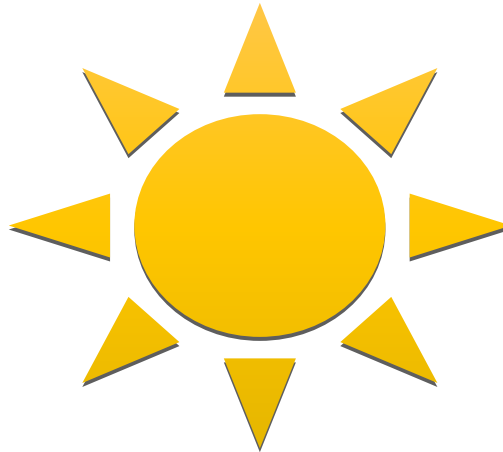
The sun is approximately 150 million kilometers away from the earth and radiates 1.23 x 10^35 Joules of energy annually. Africa is the only region in the world with a measure indicating 'excellent conditions' for solar power.

Required:

(i)   Create a word processing file containing the above content. Save the document as Question 32. (4 marks)

(ii)   Format the heading to Heading 1 style, font type to Algerian bold and Font size 18.   (4 marks)

(iii)   The author's name (subheading) should be formatted to subtitle style.   (2 marks)

(iv)   Insert a straight line under the subheading.   (2 marks)

(v)   The first letter in the paragraph should be dropped to 2 lines.   (2 marks)

(vi)   Display word count statistics for the entire document.   (2 marks)

(vii)   Insert a comment "Second largest continent", after the word "Africa".   (2 marks)

(viii) Set the default resolution of "Question 32" document to "High fidelity". Capture and save a screenshot to show how you have accomplished this task.   (2 marks)

Save "Question 32" document and upload.

(Total: 20 marks)

33. Create a workbook named "Question 33" containing the details in the table below.

Employee Name	Employee No.	Basic Pay (Ksh.)	Transport Allowance (Ksh.)	House Allowance (Ksh.)	Gross Pay (Ksh.)
Sherly Redman	1000	45000	5000		
Wayne Patrick	1001	56000	5000		
Wesley Harry	1002	30000	5000		
Rev Woodman	1003	56000	5000		
Wesley Jackson	1004	30000	5000		
Juma Wales	1005	30000	5000		

Required:

(i) Using an appropriate formula, calculate the House allowance for all employees based on the following information:

- Where the Basic pay is below Kshs 40,000 the house allowance is Kshs 10,000.

- Where the Basic pay is Kshs 40,000 and above, the house allowance is Kshs 15,000. (6 marks)

(ii) Use appropriate formula to calculate the gross pay of all employees. (3 marks)

(iii) Protect the worksheet with the password "abc123". (4 marks)

(iv) Sort Employee name values in descending order. (3 marks)

(v) Use an automatic tool to remove duplicate data on the table. Capture and save a screenshot to demonstrate how you have performed this task. (4 marks)

Save "Question 33" and upload.

(Total: 20 marks)

34. Using a Desktop publishing software, create an elegant event flyer with the following information and save the publication as "Question 34":
- Insert a photo and a background
- Date: Saturday 26th August, 2023
- Venue: Muliro Gardens
- Tag line: Come Have Fun

Save "Question 34" and upload.

(Total: 10 marks)

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DIPLOMA IN DATA MANAGEMENT AND ANALYTICS (DDMA)

DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINSTRATION (DCNSA)

LEVEL I

COMPUTER INFORMATION SYSTEMS APPLICATIONS

TUESDAY: 25 April 2023. Afternoon Paper.   **Time Allowed: 3 hours.**

Answer ALL questions. This paper has three (3) sections. SECTION I has thirty (30) Multiple Choice Questions. SECTION II has twenty (20) short response questions of two (2) marks each. SECTION III has two (2) essay/practical questions of thirty (30) marks. Marks allocated to each question are shown at the end of the question.

Required resources:
- **A computer**
- **Ms office suite**

SECTION I (30 MARKS)

1. Which of the following **BEST** describes a flatbed scanner?
   A. A scanner that can only scan documents in black and white
   B. A scanner that is designed to scan only photographs
   C. A scanner that can scan documents of different sizes and shapes that are placed flat on the scanning surface
   D. A scanner that is used to scan barcodes   (1 mark)

2. Which one is **NOT** a function of operating system?
   A. Processing data
   B. Starting a computer
   C. Providing user interface
   D. Managing Virtual files   (1 mark)

3. Which function in spreadsheet describes the number of numeric entries?
   A. NUM
   B. COUNT
   C. SUM
   D. CHKNUM   (1 mark)

4. Title bar in a spreadsheet application displays name of a_____
   A. Worksheet
   B. Workbook
   C. Formula
   D. Location   (1 mark)

5. A collection of data that can consist of name, address and email of a person is called?
   A. Byte
   B. Record
   C. Character
   D. Field   (1 mark)

6. Which of the following tools is typically used to move objects around on a Desktop Publishing (DTP) page?
   A. Pencil tool
   B. Text tool
   C. Paintbrush tool
   D. Selection tool   (1 mark)

7. Which of the following statements **BEST** describes a placeholder in DTP?
   A. An image that is used as a background on a page
   B. A temporary text box that holds text until it is replaced with final text
   C. A tool used for selecting and moving objects around a page
   D. A tool used for drawing shapes on a page (1 mark)

8. What is the alternative name for application software?
   A. End-user software
   B. Utility software
   C. Specific software
   D. Back-end software (1 mark)

9. The tool that allows a user to create a given simple presentation quicker is called?
   A. Animations
   B. Chart Wizard
   C. Transition Wizard
   D. AutoContent Wizard (1 mark)

10. Which of these sections are **NOT** parts of a slide layout?
   A. Lists
   B. Animations
   C. Titles
   D. Charts (1 mark)

11. The term that refers to the unique identifier assigned to a website is known as?
   A. Domain name
   B. IP address
   C. URL
   D. Port number (1 mark)

12. The following are functions of computer Output Unit **EXCEPT**?
   A. It shows results to the user
   B. It accepts the results produced by the computer
   C. It supplies the data and instructions to the outside world
   D. It supplies the data and instructions to the computer for further processing (1 mark)

13. What is meant by the term macro in Microsoft Word?
   A. A tool for formatting text in a document
   B. A tool for inserting images into a document
   C. A tool for recording and automating a series of actions
   D. A tool for creating and editing tables in a document (1 mark)

14. Which of the following is **NOT** a way to protect data in an Excel workbook?
   A. Password-protecting a workbook
   B. Restricting editing of certain cells or ranges
   C. Hiding worksheets or workbooks
   D. Adding a digital signature to a workbook (1 mark)

15. Which of the following is not a software utility?
   A. Screensaver
   B. System Drivers
   C. Kaspersky
   D. Google Chrome (1 mark)

16. The following can be classified as the fastest secondary storage media?
   A. Magnetic disk
   B. Magnetic drum
   C. Magnetic tape
   D. Solid state storage (1 mark)

17. A small picture that represents a folder, program or other things in a graphical user interface operating system is referred to as?
   A. Desktop
   B. Icon
   C. Graphic
   D. Image (1 mark)

18. Which of the following sequence of operation is required to force a page break in a word processor document?
   A.   Using insert / selection break on the insert tab
   B.   Positioning the cursor at the appropriate place and press enter
   C.   Positioning the cursor at the appropriate place and press F1 key
   D.   Position the cursor at the appropriate place and pressing ctrl + enter   (1 mark)

19. The purpose of thesaurus tool in a word processor is to_____
   A.   Check for grammar option
   B.   Check for spelling suggestion
   C.   Check for synonyms and antonyms words
   D.   Auto correction of texts   (1 mark)

20. Which of the following is **NOT** a system software?
   A.   Operating systems
   B.   WinZip
   C.   Firmware
   D.   BIOS   (1 mark)

21. Which of the following will **NOT** harm computer resources?
   A.   Firewall
   B.   Virus
   C.   Trojan horse
   D.   Spyware   (1 mark)

22. Which type of license offers the user technology that is not protected by copyright and is available to everyone?
   A.   Proprietary
   B.   Opensource
   C.   Experimental
   D.   In public domain   (1 mark)

23. Using Desktop publishing software to move text around is referred to as _____
   A.   Cropping
   B.   Jigging
   C.   Pasting
   D.   Aligning   (1 mark)

24. Which of the following is **NOT** an objective of disaster recovery planning?
   A.   Speedy resumption of services
   B.   Ability to retain customers
   C.   Customers gain confidence in the company
   D.   Off-site backup of customer data   (1 mark)

25. The key used to open the help for Windows in Microsoft word is _____
   A.   F1
   B.   F2
   C.   F9
   D.   F11   (1 mark)

26. Which of the following can be used to hide configuration details in operating systems?
   A.   Abstraction
   B.   Installation
   C.   Encapsulation
   D.   Initialisation   (1 mark)

27. Which of the following is **NOT** an accounting software?
   A.   Pastel
   B.   SAGE
   C.   Tally
   D.   Ableton   (1 mark)

28. A set of columns in a table that uniquely identify each other are known as?
   A.   Alternate key
   B.   Compound key
   C.   Foreign key
   D.   Composite key   (1 mark)

29. Which of the following can be used to help the presenter remember key points during a presentation?
    A.   Note cards
    B.   Speaker notes
    C.   Outline notes
    D.   Handouts   (1 mark)

30. Which of the following images are made up of pixels and used to display real life images such as photos?
    A.   Bitmap images
    B.   Vector images
    C.   Scanned images
    D.   Graphic images   (1 mark)

SECTION II (40 MARKS)

31. A computer hardware device that makes desktop publishing process efficient is known as?   (2 marks)

32. A common name given to spreadsheet tools such as SUM, AVERAGE, MIN and MAX is?   (2 marks)

33. _____is an image that displays another web page when clicked.   (2 marks)

34. In a database, admission number, student names and birthday all examples of _____?   (2 marks)

35. Creating of a logical drive from one physical drive is known as _____?   (2 marks)

36. The beam used to burn data on a storage media is called?   (2 marks)

37. Securing databases by making the data unreadable is known as?   (2 marks)

38. A device used to read a DVD in a computer system is known as?   (2 marks)

39. The name given to a range of colors that can be displayed on a device screen or other interface is known as?
                                                                                    (2 marks)

40. The printer that sprays liquid ink on the printing surface is known as?   (2 marks)

41. Increasing the intensity of text during formatting is known as?   (2 marks)

42. Google, Bing and Yahoo are examples of?   (2 marks)

43. Opening an existing document is also known as?   (2 marks)

44. _____is a collection of files stored under a name?   (2 marks)

45. What name is given to a common technique used to only show data that meets a given criterion in a spreadsheet?   (2 marks)

46. Margins added to prevent obscuring document during binding are known as_____?   (2 marks

47. A common display device used alongside presentation software to show on walls is known as?   (2 marks)

48. A slide used as a template in presentation software that contains formatting and layout information for slides in a presentation is known as_____?   (2 marks)

49. Restricting the type of data that can be entered into a spreadsheet cell is known as?   (2 marks)

50. A feature in a word document allowing a user easily see what changes have been made to a document and accept or reject changes as needed is known as?   (2 marks)

QUESTION 51

SmartFarm has decided to start a business of growing organic green vegetables for health eating. They have identified sources of income and expenses that will influence their new business venture.

(a)   Using a spreadsheet program, create a 5 years' financial projection model workbook named "Smart farm" using spreadsheet program as shown below.   (3 marks)

PROJECTIONS

SALES	120000					
Year		2023	2024	2025	2026	2027
% growth per year		20%	30%	20%	10%	10%
Materials						
Wages						
Benefits						
Others						
TOTAL COST OF GOODS						
ADMINISTRATIVE EXPENSES						
Office Salary						
Sales Salary						
Advertisements & Promotions						
Depreciation						
Miscellaneous						
TOTAL ADMINISTRATIVE COSTS						
OPERATING COST						
INTEREST ON LOANS						
PRE-TAX						
TAX						
PROFIT / LOSS						

(b)   Use parameters shown in the table below to perform the calculations in the worksheet you have created in question (a) above.   (6 marks)

PARAMETER	DETAILS
Materials	17% of sales
Wages	14% of sales
Benefits	2.1 % of sales
Others	Starts at 100 and grows by 8%
Office Salary	Starts at 10000 and grows by 10%
Sales Salary	8% of sales
Advertisement & Promotions	2.5% of sales
Depreciation	2000 fixed every year
Miscellaneous	Starts at 5000 and grows at 5000 annually
TOTAL ADMINISTRATIVE EXPENSES	
Interest on Loans	Starts at 1200 and increases at 1200 every year

Total Cost = Materials + Wages + Administrative Expenses
Operating Cost = Total Cost + Administrative Expenses
Pre-Tax = Sales – Operating Cost – Interest on Loans
Tax = 52% of Pre-tax
Profit = Pre-Tax – Tax

Save "Smart farm" workbook.

(c) Calculate projections across years 2023 to 2027 and format the worksheet such that totals are bold, set to 2 decimal places, with a comma and center the heading. (6 marks)

(Total: 15 marks)

QUESTION 52

(a) Use a word processing program to create the document shown below. Save the document as "Internet" (6 marks)

INTERNET

The Internet is a public network that allows access to a number of users globally with no time and location limitations. It is commonly referred to as information superhighway because it is assumed that any information can be acquired from the Internet and can be added to the internet websites.

Internet governance

No one "owns" the Internet, and it has no formal management organization per say. However, worldwide Internet policies are established by a number of different organizations and government bodies including the following:

The Internet Architecture Board (IAB), which helps define the overall structure of the internet.

The Internet Corporation for Assigned Names and Numbers (ICANN), which assigns IP addresses

The Internet Network Information Center (InterNIC), which was created by the U.S. Department of Commerce, and assigns domain names

The Internet Engineering Steering Group (IESG), which oversees standards setting with respect to the internet.

The Internet Engineering Task Force (IETF), which forecasts the next step in the growth of the Internet, keeping watch over its evolution and operation.

The Internet Society (ISOC), which is a consortium of corporations, government agencies, and nonprofit organizations that monitors Internet policies and practices

The World Wide Web Consortium (W3C), which sets Hypertext Markup Language (HTML) and other programming standards for the Web. A consortium is an association of two or more individuals, companies, organizations or governments (or any combination of these entities) with the objective of participating in a common activity

Internet Technology and the Digital Firm

A digital firm is defined as an organization that uses digital networks to have core business relationships with employees, suppliers, customers and other external partners.

For a number of years, companies used proprietary systems to integrate information from their internal systems and to link to their customers and trading partners. Such systems were expensive and based on technology standards that only a few companies could follow.

The Internet is rapidly becoming the infrastructure of choice for electronic commerce because it offers businesses an easier way to link with other businesses and individuals at a very low cost. It provides a universal and easy-to-use set of technologies and technology standards for all organizations, no matter which computer system or information technology platform the organizations are using.

Trading partners can directly communicate with each other, bypassing intermediaries and inefficient multi-layered procedures. Web sites are available to consumers 24 hours a day. Some information-based products, such as software, music, and videos, can actually be physically distributed over the Internet. Vendors of other types of products and services use the Internet to distribute the information surrounding their wares, such as product pricing, options, availability, and delivery time. The Internet can replace existing distribution channels or extend them, creating outlets for attracting and serving customers who otherwise would not patronize the company.

(b) In the document created in (a) above, perform the following tasks:

(i) Insert a header with the words "Internet in the information era". (2 marks)

(ii) Insert page numbers in the format "page x of y" on the right of the footer area. (2 marks)

(c)   Use a desktop publishing (DTP) application to design the publication shown below and save it as "Business card"
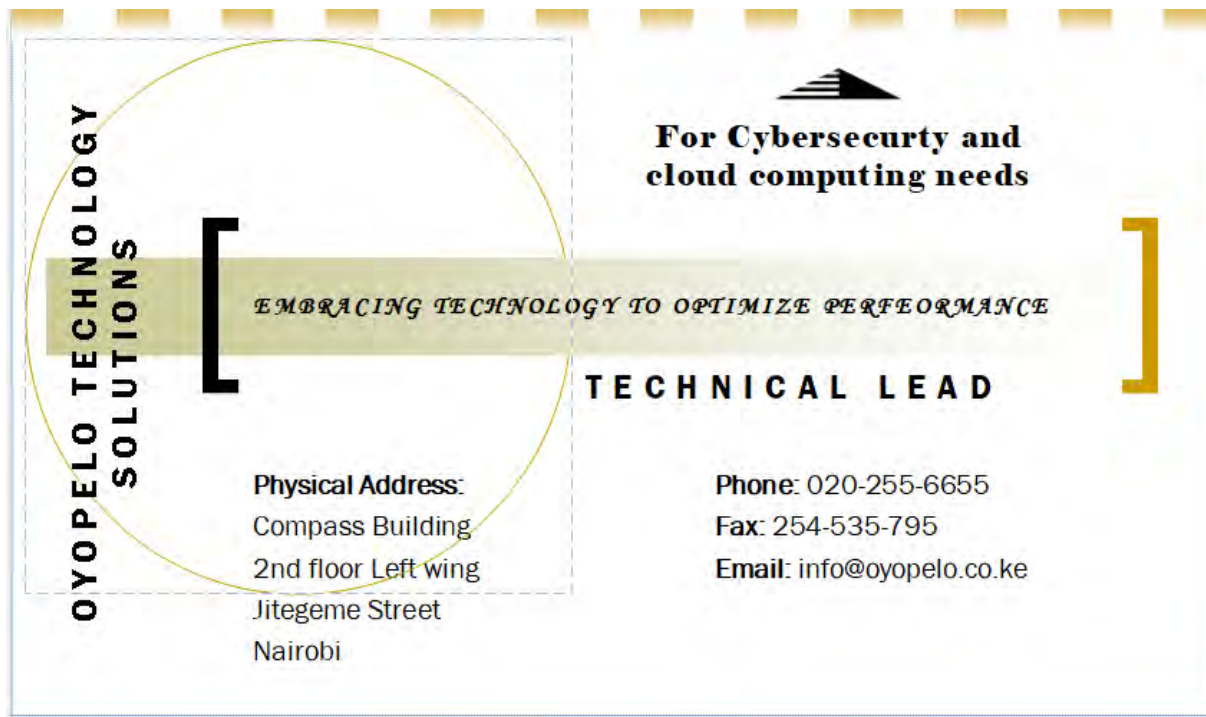
(5 marks)

Save "Business card" publication and upload.

(Total: 15 marks)

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DIPLOMA IN DATA MANAGEMENT AND ANALYTICS (DDMA)

DIPLOMA IN COMPUTER NETWORKS AND SYSTEMS ADMINSTRATION (DCNSA)

LEVEL I

COMPUTER INFORMATION SYSTEMS APPLICATIONS

TUESDAY: 6 December 2022. Afternoon Paper.   **Time Allowed: 3 hours.**

Answer ALL questions. This paper has three (3) sections. SECTION I has thirty (30) Multiple Choice Questions. SECTION II has twenty (20) short response questions of two (2) marks each. SECTION III has two (2) essay/practical questions of thirty (30) marks. Marks allocated to each question are shown at the end of the question.

Required resources:
- **A computer**
- **Ms office suite**

SECTION I (30 MARKS)

1.   Which of the following storage device has no moving parts?
     A.   CDROM
     B.   Hard disk
     C.   Flash drive
     D.   DVD   (1 mark)

2.   The memory used to temporarily store data before being printed is called?
     A.   RAM
     B.   ROM
     C.   Buffer
     D.   Hard disk   (1 mark)

3.   What is the error ##### appearing in a spreadsheet cell mean?
     A.   The width of the column is too narrow to show the value
     B.   You are required to copy and paste the data in several cells
     C.   The wrong formula has been used in the cell
     D.   Important data needs to stand out in the sheet   (1 mark)

4.   Which of the following word processing software features can be used to give credit to the sources quoted in a research paper?
     A.   Cross reference
     B.   Insert captions
     C.   Insert citations
     D.   Manage sources   (1 mark)

5.   The XLOOKUP function in spreadsheets is used to?
     A.   Look for a value in the leftmost column of a table
     B.   Find particular values from a range of cells
     C.   Look for a value in the top row of a table
     D.   Create a shortcut that opens a document   (1 mark)

6.	In the mathematical expression 5^3, which word processing effect is represented by the number 3?
    A.	Subscript
    B.	Strikethrough
    C.	Superscript
    D.	Engrave	(1 mark)

7.	Which of the following functions can be used to find the arithmetic mean of a set of values?
    A.	ACOSH
    B.	AGGREGATE
    C.	AVERAGE
    D.	STDEV	(1 mark)

8.	Which of the following is **NOT** a method of delivering a presentation to your audience using presentation software?
    A.	Notes
    B.	Slides
    C.	Handouts
    D.	Formats	(1 mark)

9.	Which of the following can be used in databases to link the detail in one table to the detail in another?
    A.	Relationships
    B.	Join
    C.	Data marts
    D.	Properties	(1 mark)

10.	What name is given to viewing the overall appearance of a spreadsheet without having to print a hard copy?
    A.	Collate
    B.	Refresh
    C.	Landscape
    D.	Preview	(1 mark)

11.	Which of the following options can be used when a user does not want to select a printer every time they are printing?
    A.	Use printer offline
    B.	Use printer online
    C.	Cancel all documents
    D.	Set as default printer	(1 mark)

12.	Which of the following refers to software additions required to run some web-based applications which are not supported by the browser?
    A.	Cookies
    B.	Consoles
    C.	History
    D.	Plugins	(1 mark)

13.	What name is an indicator on the screen controlled by movement of the mouse?
    A.	Desktop
    B.	Cursor
    C.	Icon
    D.	Button	(1 mark)

14.	Lossy data compression schemes produce a compressed file from which the original data can be recovered.
    A.	True
    B.	False	(1 mark)

15. Which of the following is an advantage of special purpose software?
    A.   Generic built as it is made for a wide range of audiences
    B.   It is specific to business requirements
    C.   It is complex with a lot of features that the firm will never use
    D.   Instant acquisition and provides for fast automation of the company   (1 mark)

16. The folder used to store an email message that a user is still working on is called?
    A.   Inbox
    B.   Compose
    C.   Outbox
    D.   Drafts   (1 mark)

17. What name is given to the smallest unit of data in a computer?
    A.   Word
    B.   Bit
    C.   Byte
    D.   Kb   (1 mark)

18. The System of interlinked digital web pages located on the Internet is known as?
    A.   Hyperlinks
    B.   World wide web
    C.   Hypertext
    D.   Search engine   (1 mark)

19. Which of the following keyboard shortcuts are used to paste text?
    A.   Ctrl + V
    B.   Shift + Enter
    C.   Ctrl +D
    D.   Ctrl +P   (1 mark)

20. Which of the following display produces the lowest quality images?
    A.   LED
    B.   CRT
    C.   TFT
    D.   Flat panel   (1 mark)

21. The process of reducing the bit-size of a data file by removing unnecessary information is known as?
    A.   Defragmentation
    B.   Regression
    C.   Compression
    D.   Decomposition   (1 mark)

22. Which of the following is **NOT** a use of an application software?
    A.   Formatting text
    B.   Storing data
    C.   Making presentations
    D.   Managing memory   (1 mark)

23. The software that operates and controls particular hardware devices connected to a computer is known as?
    A.   Applications
    B.   Drivers
    C.   Setup
    D.   Adware   (1 mark)

24. Which of the following is best produced using desktop publishing software?
   A. Letters
   B. Emails
   C. Memos
   D. Posters (1 mark)

25. What does the acronym https stand for?
   A. Hypertext transfer protocol secure
   B. Hypertext transfer protocol service
   C. Hypertext transfer protocol server
   D. Hypertext transfer protocol system (1 mark)

26. Which of the following is an example of paragraph formatting?
   A. Indentation
   B. Bold
   C. Italics
   D. Superscript (1 mark)

27. Which of the following keyboard shortcuts is used for permanently deleting files without placing them in the recycle bin?
   A. Esc + DELETE
   B. ALT + DELETE
   C. CTRL + DELETE
   D. SHIFT + DELETE (1 mark)

28. Which of the following paragraph alignments is used to format the spaces in a paragraph so that text is aligned to the left margins?
   A. Justify
   B. Centre align
   C. Left align
   D. Right align (1 mark)

29. What is the function of the symbol Σ in spreadsheets?
   A. To add values in a range of cells
   B. To find the largest value in a row
   C. To represent monetary values
   D. For general display of numbers (1 mark)

30. Which of the following refers to the role of a table in a database?
   A. Used to edit data
   B. Used store data
   C. Used to enter data
   D. Used to print data (1 mark)

SECTION II (40 MARKS)

31. Devices connected to the system unit using cables are collectively known as? (2 marks)

32. Joining of data source and main document in word processors is called? (2 marks)

33. The name of the memory where cut objects are put in spreadsheets is known as? (2 marks)

34. A group of characters used to secure a document before opening is referred to as? (2 marks)

35. A user created method of making calculations is called? (2 marks)

36. A tool used to automate tasks in a database is known as? (2 marks)

37. The giving of live to text and images in PowerPoint is referred to as? (2 marks)

38. Removing of unwanted parts of a graphic is known as? (2 marks)

39. Creating a portable document file(pdf) from a word processor is known as? (2 marks)

40. A page in a presentation software is known as? (2 marks)

41. The software system designed to carry out web searches is referred to as? (2 marks)

42. The place where a user types the URL of a site to be visited is known as? (2 marks)

43. The public websites or pages that users can access on their local computers and other devices through the internet is referred to as? (2 marks)

44. A 25-character code that is used to activate an operating system is called? (2 marks)

45. An SQL command used to extract data with same records from two different tables is known as? (2 marks)

46. What is the margin used to add extra binding space in a document? (2 marks)

47. A spreadsheet used to join two pieces of text from different cells is known as? (2 marks)

48. _____ implies to the full range of colors that can be applied to a graphic. (2 marks)

49. Visual effects applied when changing from one slide to another during presentation is known as? (2 marks)

50. A software that enables a printer communicate with an operating system is called? (2 marks)

<center>**SECTION III (30 MARKS)**</center>

QUESTION 51

(a) Using Presentation software, create a presentation named "Environment" with the following slides:

Slide 1:
World Environmental
Day
The year 2022

Slide 2:
Programme
Introduction
- Directors
- Management
- Delegates
  - Africa
  - America
  - Asia
- Others

Slide 3:
About the day
World Environment Day is celebrated annually on 5 June and is the United Nations' principal vehicle for encouraging awareness and action for the protection of the environment.

Slide 4:

Emergency:
- the climate is heating up too quickly for people and nature to adapt;
- habitat loss and other pressures mean an estimated 1 million species are threatened with extinction;
- pollution continues to poison our air, land and water.

Slide 5:

Recommendations
- Planting trees
- Avoid using fossil fuels
- Do not cut trees

Slide 6:

Tree cover   (6 marks)

Continent	Forest Cover %
Africa	15
Asia	8
America	10
Europe	9

(b)   Insert a column chart to show the data in slide 6.   (2 marks)

(c)   Insert the footer 'Conserve' to all the slides, excluding slide 1.   (2 marks)

Upload "Environment" presentation.

(Total: 10 marks)

QUESTION 52

Create a blank database and save it as "Customers".

Required:

(a)   In Customers database, create the following table and save it is **tblCustomers.**   (6 marks)
tblCustomers:

Field Name	Data type
CustomerID	Autonumber
FirstName	Short Text
LastName	Short Text
Gender	Short Text
MobileNumber	Short Text
EmailAddress	Short Text

(b)   Set the CustomerID field as the Primary key.   (1 mark)

(c)   Insert the Customer data shown below in tblcustomers.   (6 marks)

CustomerID	FirstName	LastName	Gender	MobileNumber	EmailAdress
1	Bahati	Chiku	M	012821	bchiku@csa.com
2	Binti	Bakari	F	012822	bbakari@csa.com
3	Pendo	Hami	F	012823	phami@csa.com
4	Amani	Kito	M	012824	akito@csa.com

(d)   Append the field names **Address** and **County**, with the Datatype "ShortText" into the **tblCustomers** table. Add details of your choice in Address and County fields.   (4 marks)

(e)   Perform the following task:

    (i)   Generate a report named "CustomerData" containing customer data with the following fields: **CustomerID, FirstName, LastName, Gender, Address and County**.

    (ii)   Group the fields on the report you have created in (i) above using **CustomerID**.

    (iii)   Sort the data in ascending order using the **LastName**.

                                                         (3 marks)

    Upload "Customers" database.   **(Total: 20 marks)**

………………………………………………………………………………

DIPLOMA IN DATA MANAGEMENT AND ANALYTICS (DDMA)

DIPLOMA IN COMPUTER NETWORKS AND SYSTEM ADMINSTRATION (DCNSA)

LEVEL I

COMPUTER INFORMATION SYSTEMS APPLICATIONS

TUESDAY: 2 August 2022. Afternoon paper.   **Time Allowed: 3 hours.**

This paper has three sections. SECTION I has thirty (30) Multiple Choice Questions. SECTION II has twenty (20) short response questions. SECTION III has two (2) essay/practical questions. All questions are compulsory. Marks allocated to each question are shown at the end of the question.

SECTION I

1. Which of the following can be used for creating consistent and standard slide layouts in presentation software?
   - A. Clip art
   - B. Template
   - C. Placeholder
   - D. Rotate   (1 mark)

2. Which of the following tools cannot be used in creating a system requirement specification?
   - A. Flowcharts
   - B. Decision trees
   - C. Data flow diagram
   - D. Data mart   (1 mark)

3. Which of the following solutions can be used to fix image pixelated problems using graphics software?
   - A. Image contrast
   - B. Image resolution
   - C. Image brightness
   - D. Image focus   (1 mark)

4. Which of the following is NOT an image file format?
   - A. IMG
   - B. JPEG
   - C. PNG
   - D. TIFF   (1 mark)

5. Which of the following does **NOT** demonstrate the functions of a hyperlink in Word processing?
   - A. Used to create links to a new document
   - B. Used to link to an existing web page
   - C. Used to quickly switch to an open window
   - D. Used to connect to an email address   (1 mark)

6. Which of the following fields can be used as a primary key in a student database?
   - A. Student name
   - B. Student ID
   - C. Course name
   - D. Date of birth   (1 mark)

7. What is the following keyboard shortcuts can be used to close an application?
   A. CTRL + V
   B. CTRL + X
   C. CTRL + W
   D. CTRL + Z   (1 mark)

8. Which of the following is **NOT** a type of a constraint in database management systems?
   A. Null
   B. Foreign key
   C. Unique
   D. Tuples   (1 mark)

9. The object linking and embedding technology is used to:
   A. Jump to another location on the document
   B. Copy pictures and graphs from other applications
   C. Look up values in another table or list
   D. Select other data objects in that application   (1 mark)

10. Which of the following features can be used to generate well formatted output from a database?
    A. Reports
    B. Queries
    C. Forms
    D. Macros   (1 mark)

11. Which of the following features are NOT found in presentation software?
    A. Notes
    B. Handouts
    C. Slides
    D. Functions   (1 mark)

12. A special effect used when moving from one slide to another in a presentation is referred to as_____
    A. Animation
    B. Transition
    C. Fly in
    D. Theme   (1 mark)

13. Which of the following terms identifies the address of a website?
    A. Host
    B. Web page
    C. Domain
    D. Directory   (1 mark)

14. A computer's temporary storage area of web pages visited in an Internet session is known as _____
    A. Cache
    B. RAM
    C. Website
    D. Cookie   (1 mark)

15. Which of the following factors can be considered when preparing a presentation?
    A. Designs and styles
    B. Web pages and layouts
    C. Frames and colors
    D. Figures and tables   (1 mark)

16. A web feed format used to publish frequently updated content is referred to as_____.
    A. Root Server Architecture
    B. Really Simple Syndication
    C. Software Rollup
    D. Web Feed Hotfix   (1 mark)

17. Which of the following options allows the user to suspend their programs, and permits other users to utilise the system?
   A. Restart
   B. Switch user
   C. Suspend user
   D. Log off user (1 mark)

18. Which of the following features is used to make several objects behave as one, while preserving their arrangement?
   A. Rotating
   B. Resizing
   C. Grouping
   D. Flipping (1 mark)

19. Which of the following is **NOT** part of the main components of a multimedia program?
   A. Colours
   B. Images
   C. Text
   D. Sound (1 mark)

20. Which of the following refers to the characteristics of an entity?
   A. Relationships
   B. Concepts
   C. Values
   D. Attributes (1 mark)

21. Which of the following conditions are **NOT** associated with the overuse of computers?
   A. Carpal tunnel syndrome
   B. Repetitive stress injury
   C. Eye strain
   D. Backaches (1 mark)

22. Which of the following is **NOT** a video file format?
   A. AVI
   B. MP4
   C. MOV
   D. VID (1 mark)

23. Which of the following is a top tip for slideshow design?
   A. Use several transitions, videos and sound
   B. Try to use underlined text sparingly
   C. Overdo the use of colors in the presentation
   D. Ensure your writing is all uppercase (1 mark)

24. Which of the following requires Internet access?
   A. Digitising videos into movies
   B. Accessing video files from hard drive
   C. Use of hyperlinks to link to a web movie
   D. Video files created by screen-capture programs (1 mark)

25. Which of the following is the largest computer storage unit?
   A. Petabyte
   B. Terabyte
   C. Exabyte
   D. Gigabyte (1 mark)

26. Which of the following features can be used in a spreadsheet to suggest alternative words or phrases?
   A. Thesaurus
   B. Grammar checker
   C. Spell checker
   D. Style sheet (1 mark)

27. Which of the following is an advantage of using robots in the workplace?
    A. They cannot think for themselves
    B. They can work continuously
    C. They require payment
    D. Human skills can be lost forever (1 mark)

28. A set of cells in a column or row is referred to as a _____.
    A. Block
    B. Range
    C. Label
    D. Batch (1 mark)

29. Which of the following is **NOT** an advantage of emails?
    A. Can be sent to several users at the same time
    B. Can be sent and received within a short time
    C. Large amounts of spam mail can be received
    D. Different files may be attached to an email (1 mark)

30. In computer monitors, what does the acronym LCD stand for?
    A. Liquid Crystal Display
    B. Light Crystal Diode
    C. Laptop Cathode Device
    D. Liquid Color Device (1 mark)

SECTION II

In question 31 to 35, indicate whether the statement is True of False.

31. A worksheet may contain several workbooks.
    A) True
    B) False (1 mark)

32. Disk defragmentation is a process of automatically deleting temporary files of various kinds from local hard drives.
    A) True
    B) False (1 mark)

33. System software coordinates how programs work with the computer's hardware and other software.
    A) True
    B) False (1 mark)

    Open source software is software whose source code is available for modification or enhancement by anyone.
    A) True
    B) False (1 mark)

35. A word processing file is known as a spreadsheet.
    A) True
    B) False (1 mark)

36. Match each of the following storage devices with their features:

Storage device	Feature
Cloud storage	
DVD	
Solid state drive	
Flash disk	
Hard disk drive	

- Non-volatile mechanical drive. Each surface is divided into tracks.
- An optical disk that uses laser technology to read and write data.
- Fast, portable, and can hold a lot of data in a small space.
- Ubiquitous data access and provides for automatic backups.
- Has no moving parts and is less susceptible to damage from physical shock.

37.   Classify the following printers with their associated features:

Thermal printers	
Dot matrix printers	
Laser printers	
Inkjet printers	

(4 marks)

- Low quality printer that uses both individual sheets and continuous stationery
- High resolution printers capable of printing in different colours
- Non-impact printers that use toner cartridges and can handle large-volume print jobs
- High speed printers used for printing receipts and labels

38.   Software used to display web pages and access other Internet resources _____.   (2 marks)

39.   Differentiate between data backup and data archiving.   (2 marks)

40.   Contrast between Hibernate and Shut down options in a laptop.   (2 marks)

41.   Differentiate between One-to-many and One-to-one relationship types in a database.   (2 marks)

42.   The _____ function is used to return one value if the condition specified is True, and another value if the condition is False.   (2 marks)

43.   This term means that data is retained when power is switched off.   (2 marks)

44.   A location where Internet access is available to any WiFi enabled computer via a WLAN access point.   (2 marks)

45.   Users who have complete access to the system and can be used to set up user accounts are known as_____
(2 marks)

46.   An information system that integrates supplier, distributor and customer logistics requirements into one cohesive process is known as _____.   (2 marks)

47.   Utility software that allows adding new hardware, such as a printer, to function with the operating system. (2 marks)

48.   The process of dividing a hard disk into various units for storage_____.   (2 marks)

49.   A legal agreement that controls the rights to use and distribute software applications is known as _____
(2 marks)

50.   Outline two types of charts found in Microsoft PowerPoint _____.   (2 marks)

51.   (i)   Discuss two features used for editing images using Word processing software.   (4 marks)

        (ii)   Evaluate two ways of closing an office application software when the task is complete.   (4 marks)

        (iii)   Discuss three types of publications that can be created using Desktop publishing software.   (6 marks)

52.   (i)   Outline the procedure of safely disconnecting an external drive from a computer.   (4 marks)

        (ii)   Demonstrate the process of installing a new printer.   (4 marks)

        (iii)   Discuss two ways of opening an existing spreadsheet file in a computer.   (4 marks)

        (iv)   Describe the process of creating a PDF Resume using Word processing software.   (4 marks)

....

DIPLOMA IN DATA MANAGEMENT AND ANALYTICS (DDMA)

LEVEL ONE

COMPUTER INFORMATION SYSTEMS APPLICATION

TIME: 3 HOURS

INSTRUCTIONS: ANSWER ALL QUESTIONS.

Section A (30 marks)

1. Spreadsheets are examples of _____software.
   A. Application
   B. Inbuilt
   C. System
   D. Shareware

2. Which one of the following key combination is used to cut selected text and save it to the clipboard ready to paste elsewhere?
   E. Crtl+X
   F. Ctrl+End
   G. Ctrl+W
   H. Ctrl+Home

3. Identify a feature in office applications that is part of the spell checker to correct common spelling or typing errors, saving time for the user.
   A. Auto Format
   B. Autocorrect
   C. Auto Change
   D. Smart tags

4. Which one of the following is a cell reference that adjusts and change when copied for example using auto-fill such as SUM (B9:B15)?
   A. Relative
   B. Absolute
   C. Active
   D. Anchor

5. _____shows the different levels of headings as designated by the styles applied in your document.
   A. Outline view
   B. Notes page view
   C. Slide sorter
   D. Slide show

6. The left border, Right border and Center are part of horizontal alignment for Data in a cell.
   A. True
   B. False
7. Which one of the following key combination is used to open an existing power-point document?
   A. Ctrl+ C
   B. Ctrl+ O
   C. Ctrl+ E
   D. Ctrl+ U
8. _____ function returns the correct position of sorted or unsorted data.
   A. Sum()
   B. LCM()
   C. Sort()
   D. Rank()
9. Which one of the following is a technology used to combine information from different applications into your tables in access?
   A. Ole Object
   B. Memo
   C. Lookup Wizard
   D. Hyperlink
10. _____refers to set of instructions started by the user, program, or operating system.
    A. Thread
    B. Software
    C. Process
    D. Service
11. _____is used to control the margins of your page and the indentation of paragraphs.
    A. Margin
    B. Padding
    C. Ruler
    D. Ribbon
12. _____serves as a starting point for a new document in windows.
    A. Workbook
    B. Macros
    C. Template
    D. Modules
13. The introductory slide in a presentation is known as?
    A. Main slide
    B. Title slide
    C. Bullet slide
    D. Table slide
14. When _____is pressed it moves the cursor to the beginning of a line?
    A. End
    B. Page Down
    C. Home
    D. Insert
15. Which feature of a word processor is used to check synonyms of the text?
    A. Spelling
    B. Thesaurus
    C. Find
    D. Mail merge

16. Which of the following is the method for increasing text to make it legible?
    A. Ctrl+Z
    B. CTRL++
    C. View
    D. Home
17. An intersection between a row and a column is known as?
    E. Data
    F. Cell
    G. Row
    H. Column

18. Which of the following is produced using a publishing software?
    A. Calendars
    B. Reports
    C. Analysis
    D. Presentations
19. Which of the following controls all information about the theme, layout, background, color, fonts, and positioning of all slides?
    A. File settings
    B. Main slide
    C. Master slide
    D. Settings file

20. A field that uniquely identifies a record is known as?
    A. Primary key
    B. Alternate key
    C. Main record
    D. Foreign key
21. Which of the following is true about default printer in a computer system?
    A. The printer that prints all jobs unless specified.
    B. Printer connected directly to a computer
    C. Printer connected through a network
    D. Plug and play printer
22. Which of the following is an input as well as output device?
    A. Touch screen

Mouse

    B. Keyboard
    C. Printer
23. Which one of the following accounts allow users to carry out tasks that require special permissions, such as installing software or renaming a computer?
    A. Administrator account
    B. Standard account
    C. Guest account
    D. Default account
24. _____ is used to navigate the file system and manage the folders, sub-folders, and applications on storage media.
    A. Internet explorer
    B. Finder
    C. Vscode
    D. File explorer
25. Which one of the following is a logical function that returns one return one value if a condition is true and another value if it's false?
    A. SUM
    B. COUNTIF
    C. AND

D. **IF**

26. Which of the following keys opens the help window?
    A. F12
    B. **F1**
    C. F8
    D. F9

27. Which one of the following uses is **NOT** associated with Excel?
    A. Financial analysis
    B. Charting and graphing
    C. **Statistical Analysis**
    D. Programming

28. _____ are animation-like effects that happen when you move from one slide to the next during a presentation.
    A. Slide view
    B. Slide show
    C. Slide Sorter
    D. **Slide transitions**

29. Which one of the following is used to select the objects that you want to have the same formatting in PowerPoint?
    A. **Ctrl+Shift+V**
    B. Ctrl+Shift+C
    C. Ctrl+Shift+Drag
    D. Ctrl+Shift+>

30. _____is an Access object used to view, analyze, or modify data.
    A. Worksheets
    B. Form
    C. **Queries**
    D. Reports.

SECTION B PRACTICAL (70 MARKS)
QUESTION 31
Create and Populate the spreadsheet file below and save your work as "QUESTION 1"   **(4mks)**

MASOMO SCHOOL									
ADMNO	**NAMES**	**ENG**	**KIS**	**MATHS**	**SCIE**	**SOCIAL**	**TOTAL**	**AVERAGE**	**GRADE**	**RANK**
ATC001	WAYNE	60	30	40	34	40				
ATC002	ANN	87	72	84	70	87				
ATC003	NELSON	55	62	50	56	61				
ATC004	HERMAN	76	89	66	79	78				
ATC005	MARY	40	32	25	40	37				
ATC006	SUSAN	56	60	78	89	65				

a) Perform the following calculations on for each of the student using the following appropriate functions.

i)   **Total**   **(4mks)**

MASOMO SCHOOL							
ADM NO	**NAMES**	**ENG**	**KIS**	**MATHS**	**SCIE**	**SOCIAL**	**TOTAL**
ATC001	WAYNE	60	30	40	34	40	**204**
ATC002	ANN	87	72	84	70	87	**400**
ATC003	NELSON	55	62	50	56	61	**284**
ATC004	HERMAN	76	89	66	79	78	**388**
ATC005	MARY	40	32	25	40	37	**174**
ATC006	SUSAN	56	60	78	89	65	**348**

MASOMO SCHOOL							
ADM NO	**NAMES**	**ENG**	**KIS**	**MATHS**	**SCIE**	**SOCIAL**	**AVERAGE**
ATC001	WAYNE	60	30	40	34	40	40.8
ATC002	ANN	87	72	84	70	87	80
ATC003	NELSON	55	62	50	56	61	56.8
ATC004	HERMAN	76	89	66	79	78	77.6
ATC005	MARY	40	32	25	40	37	34.8
ATC006	SUSAN	56	60	78	89	65	69.6

ii)   **AVERAGE**   **(4mks)**

MASOMO SCHOOL		
ADM NO	**NAMES**	**RANK**
ATC001	WAYNE	5
ATC002	ANN	1
ATC003	NELSON	4
ATC004	HERMAN	2
ATC005	MARY	6
ATC006	SUSAN	3

iii) **Grade the marks for each student based on the following parameters. (5mks)**

Greater than 80 should be A
Between 60 and 79 should be B
Between 40 to 69 should be C
Below 40 should be D

iv) **Rank** **(3mks)**

(Total: 20 marks)

QUESTION 32

Consider the following information.

Slide 1

War and warfare

By James

Slide 2

- ➢ Causes of war
- ➢ Types of war
- ➢ Popular war equipment
- ➢ Dealing with war

Slide 3

Causes of war

- ➢ Religion.
- ➢ Nationalism.
- ➢ Revenge.
- ➢ Civil War.
- ➢ Revolutionary War.
- ➢ Defensive War.

Slide 4

Types of war

- ➢ Cold.
- ➢ Colonial war.
- ➢ Invasion.
- ➢ Proxy war.

Slide 5

Dealing with war

- ➢ Talk about it.
- ➢ Take care of yourself.
- ➢ Limit exposure to images of the war
- ➢ Ask for help.

Required:

a) Using a presentation software, enter the above information in a presentation software and name as "QUESTION TWO". **(15mks)**

b) Insert a slide after slide 4 and input the data below.   **(2 mks)**

Popular war equipment
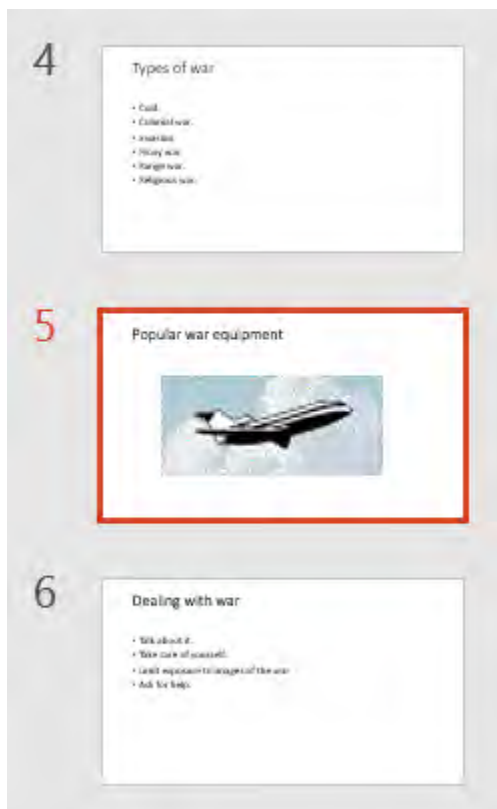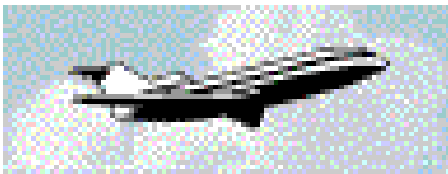
c) Apply a slide transition of your choice for the first two slides   **(2mks)**
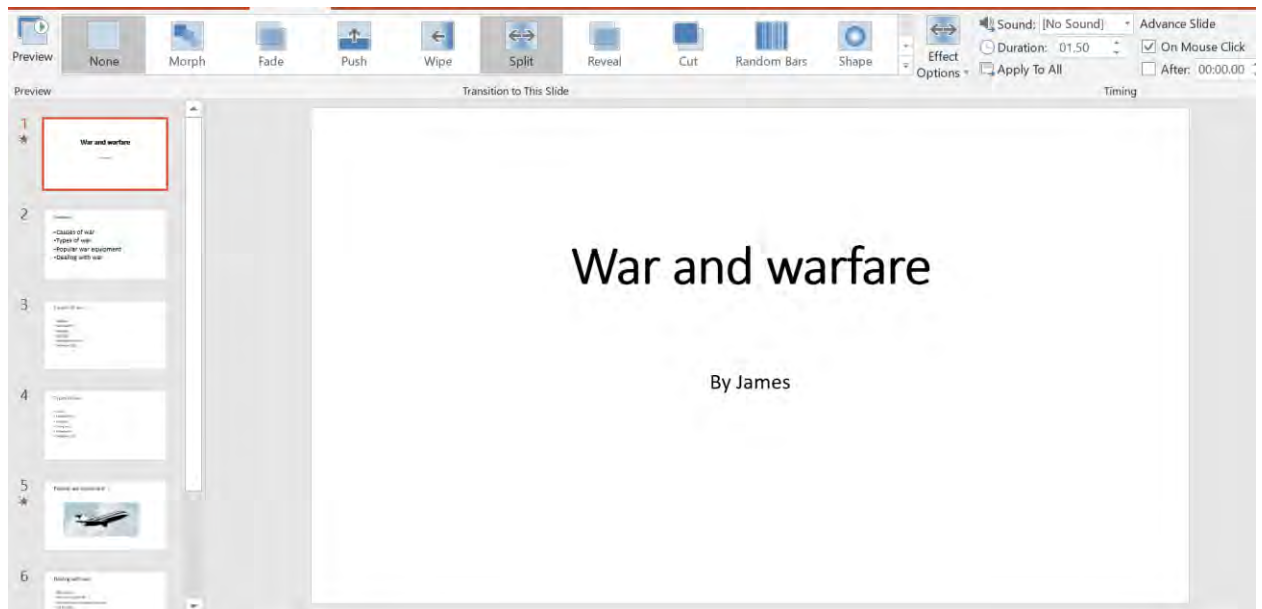
d) Insert a last slide with the words "END." **(1mk)**

(Total: 20 marks)

QUESTION 33

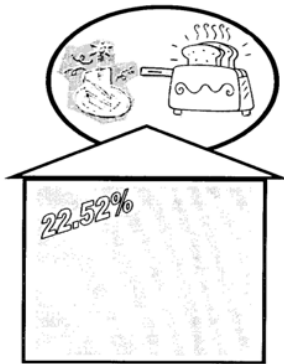Create a word document file as below and save your work as "QUESTION 3"   **(6mks)**

BORROWERS TO PAY MORE AS RATES SHOOT UP

High interest rates being stimulated by the Central bank of Kenya (CBK) will have far-reaching effects on banks and borrowers. The impact of the upward review of the Central Bank Rate (CBR), the signal rate at which the regulator lends to commercial banks, will be felt more by those servicing the loans and mortgages with flexible interest rates. By raising the CBR from 6.25 per cent to 8 per cent, Central bank has set the ground for interest rates to rise, and analysts are warning that this will squeeze the already much stretched borrowers and lead to massive defaults on loan repayments.

This can mean increased underperforming loans for banks, which is likely to eat into their profits and slow the bullish run over the past two years that has been rewarded with record earnings.

The defaults are an indication that businesses are either bleeding or stagnant, and often lead to auctions as banks seek to recover their money...

22.52%

!

a) In the document created above, perform the following tasks
   i. Insert the words "Financial weekly" on the left of the header area   **(3mks)**

Financial weekly

BORROWERS TO PAY MORE AS RATES SHOOT UP

High interest rates being stimulated by the Central bank of Kenya (CBK) will have far-reaching effects on banks and borrowers. The impact of the upward review of the Central Bank Rate (CBR), the signal rate at which the regulator lends to commercial banks, will be felt more by those servicing the loans and mortgages with flexible interest rates. By raising the CBR from 6.25 per cent to 8 per cent, Central bank has set the ground for interest rates to rise, and analysts are warning that this will squeeze the already much stretched borrowers and lead to massive defaults on loan repayments.

This can mean increased underperforming loans for banks, which is likely to eat into their profits and slow the bullish run over the past two years that has been rewarded with record earnings.

The defaults are an indication that businesses are either bleeding or stagnant, and often lead to auctions as banks seek to recover their money...

   ii. Insert page numbers in the format "page x of y" on the right of footer area.   **(3mks)**
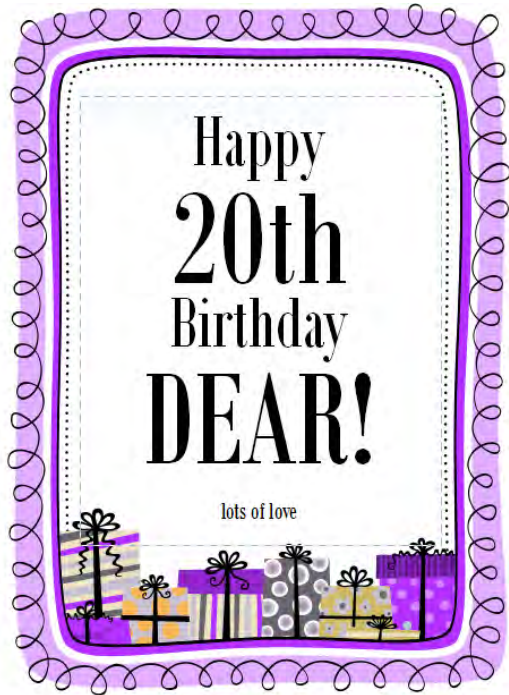
b) Create a diagram as shown below. **(8mks)**
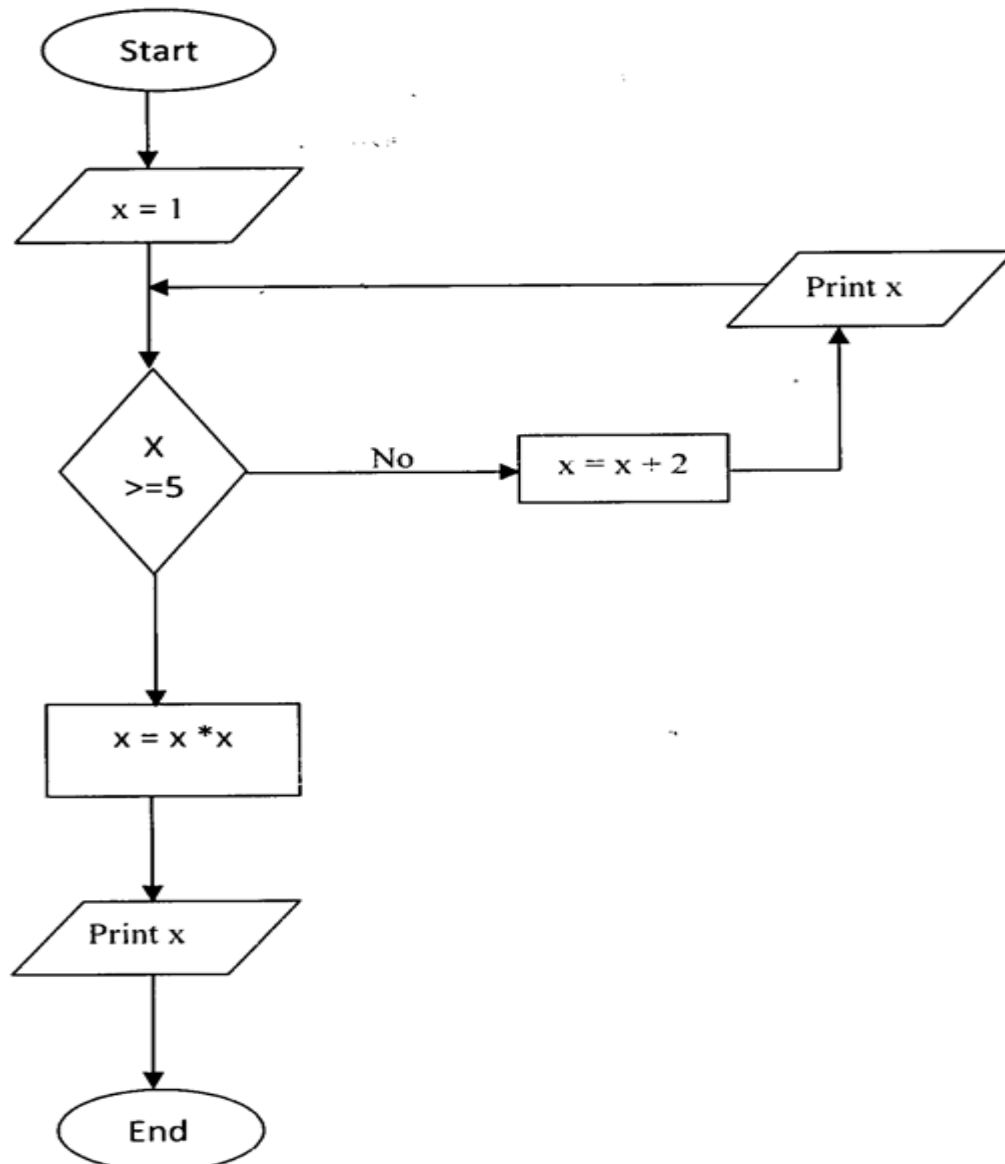
(Total: 20 marks)

QUESTION 34

Using a desktop publisher design the publication below   (10 marks)

(Total: 10 marks)