Name…… …… index No……..…….

Signature: _____ Date: _____

STAREHE GIRLS' CENTRE MOCK EXAMINATION 2024

COMPUTER STUDIES

Paper 2

PRACTICAL EXAMINATION

$2^1/2$ hours

INSTRUCTIONS TO CANDIDATES

1. Ensure you have all questions printed on the question paper
2. Answer BOTH questions
3. Both questions carry equal marks.[50 marks each]
4. Type your name and index number at the right corner of each printed paper
5. Write the name and version of the software used for each question attempted in this question paper
6. All answers must be saved on the storage device (CD) provided.
7. Make a printout of the answers on the answer sheet s provided
8. Hand in all the printout and your work on the storage device

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QUESTION ONE

(a) Using a word processing software type the following document (16 marks)

DATABASE MANAGEMENT SYSTEM

What is a database management system?

When you use word processing software, you develop a document. When you use spreadsheet software, you develop a workbook or spreadsheet. When you use personal information management software, you develop a phone book or appointment calendar. The same is true in a database environment-you use software to develop a database. A ***DBMS*** is the software you use to specify the logical organization for a database and access it.

A DBMS contains five important software components

1. DBMS engine
2. Data definition subsystem
3. Data manipulation subsystem
4. Application generation subsystem
5. Data administration subsystem

The ***DBMS engine*** allows you work with database from a logical point of view, without worrying about physical and technical details. It accesses the database and data dictionary on the storage device.

The ***data definition subsystem*** helps to create and maintain data dictionary and file structure.

The ***data manipulation subsystem*** helps you add, change and delete information in the database.

The ***application generation subsystem*** facilities include tools for creating data entry screens, programming languages, and interfaces to programming languages used.

The ***data administration subsystem*** is used by database administrator for backup and recovery, security management, queries and maintenance of the database.

(b) Fully justify first paragraph, and insert a footnote to explain DBMS (3 marks)

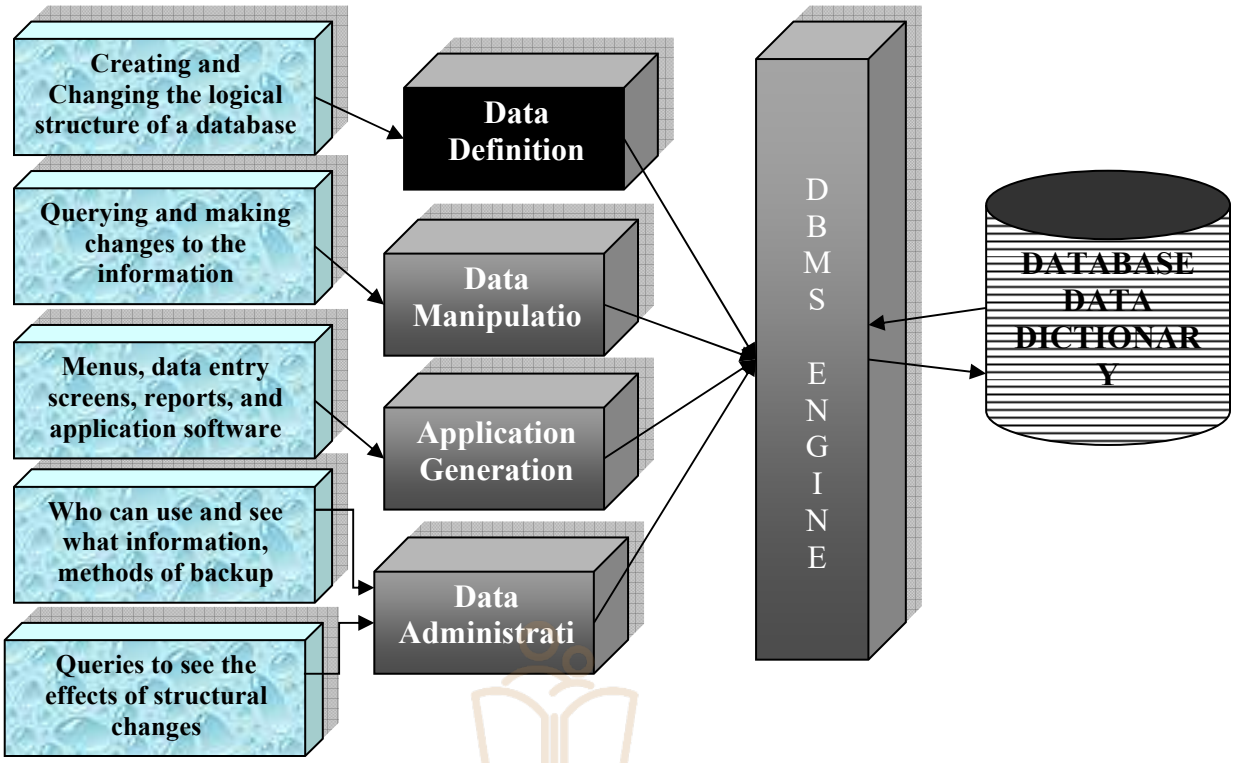
(c) Space the whole document into 1.5 spacing (1 mark)

(d) Create a footer and a header with your name and index respectively (2 marks)

(e) Create the object below using the drawing toolbar (16marks)

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Software subsystems of a Database Management System



(f) Type the following text and expression below [6 MARKS]

THE MATHEMATICAL EQUATION

To find an sum of a binomial expression of the form $(a+b)^n$ can be difficult. For instance

$(a+b)^n = (a+b)\ X\ (a+b)\ X\ (a+b)\ X\ (a+b)\ ...$

So if a=1 then this is as simple as an expansion of a sum shown below

$$(1+x)^n = 1 + \frac{nx}{1!} + \frac{n(n-1)x^2}{2!} + \cdots$$

(g) Add a footer of your name and class. Save the document as DBMS1. (2 marks)

(h) Copy the whole portion in (f) above to a new document and save it as "Equax" [2 Marks]

(i) Print the documents DBMS1 and Equax. [2 marks]

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QUESTION TWO

Excel School ordered computer accessories and the following suppliers provided the following as illustrated below

	A	B	C	D
1	Name	Item Sold	Amount	Date
2	Joseph	Mouse	200.00	2/11/2011
3	Peter	System unit	5,000.00	3/11/2011
4	Tony	Keyboard	200.00	4/11/2011
5	Mike	CD Writer	2,000.00	5/11/2011
6.	Joseph	Computer system	2,000.00	6/11/2011
7	Peter	Mouse	200.00	7/11/2011
8	Tony	Mouse	200.00	8/11/2011
9	Mike	System unit.	.2,500.00	9/11/2011
10	Joseph	Keyboard	200.00	10/11/2011
11	Peter	CD writer	3,000.00	11/11/2011
12	Tony	Computer system	5,400.00	12/11/2011
13	Mike	Mouse	200.00	13/11/2011
14	Joseph	System unit	3,000.00	14/11/2011
15	Peter	Keyboard	200.00	15/11/2011
16.	Tony	CDWriter	2,500.00	16/11/2011
l7	Mike	Computer system	6,000.00	17/11/2011

a) Enter the data shown into a spreadsheet and save it (the workbook) as Excel

(11 Marks)

b) Copy the content of Sheet 1 to Sheet 2 into the exact position and rename it as New price. Insert a new row after the Amount row and label it "New price". The suppliers of the items decided to, increase all their items by 20%. Enter the percentage into cell A18. Using absolute referencing, calculate the New price of each of the items in the "New price" column. (7marks).

c) Copy the content of Sheet 1 to Sheet 3 and rename it as Subtotals. Using subtotals sheet, find subtotals for each supplier and display the Grand Total. (8 marks)

d) Using the subtotals sheet, Create a column graph (bar graph) to compare the total cost of all items bought from each supplier. The x-axis should be labelled as "Names" and the y-axis "cost items". Each bar should display a total value it represents on top of it and the supplier's name below it. The title of the graph should read, SUPPLIERS COMPARISON TOTALS. Place the graph on a new sheet and rename the sheet as BAR GRAPH. (8 marks)

e) Insert a new sheet into the workbook. Rename this sheet as "Filtered". Open the subtotals sheet. Filter the records of all suppliers whose New price is less than or equal to 6000 and greater than 250. Copy the results onto the "Filtered" sheet. (7 marks)

f) Open sheet 1. Copy its contents to another work sheet. Restrict all the cells in the Amount column to allow entry of amounts between 0 and 6000. A message, "Input amount <= 6000" should be displayed whenever a cell is selected. In case of an invalid entry, the message, "Amount >6000", should be displayed. Put an inside and outside border on data on the new sheet. Rename work sheet as restrict. (5 marks)

g) Put the sheet name as the header and your name, School and index number as footer for every sheet. Save your work on the removable storage media. [2 marks]

h) Print ALL the worksheets. (2 marks)

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