ZIMBABWE

MINISTRY OF HIGHER AND TERTIARY EDUCATION

HIGHER EDUCATION EXAMINATIONS COUNCIL (HEXCO)

NATIONAL CERTIFICATE

IN

INFORMATION TECHNOLOGY

SUBJECT: Computer Operations and Packages (Practical)

PAPER NO: 317/S03B

OCTOBER/NOVEMBER 2013 EXAMINATION

REQUIREMENTS

1. Flash Disk
2. Printing Facility

INSTRUCTIONS TO CANDIDATE

1. Answer ALL questions.

2. Each question carries 25 marks.

This paper consists of 4 printed pages.

QUESTION 1

i) Type the following passage in single line spacing, font size 10 point, save it as Tutorial and print it. (10 marks)

In the previous tutorial we saw that an Asynchronous counter can have 2n – 1 possible counting states e.g. MOD-16 for a 4-bit counter, (0 – 15) making it ideal for use in Frequency Division. But it is also possible to use the basic asynchronous counter to construct special counters with counting states less than their maximum output number by forcing the counter to reset itself to zero at a predetermined value producing a type of asynchronous counter that has truncated sequences. Then an n-bit counter that counts up to its maximum modulus (2n) is called a full sequence counter and a n-bit counter whose modulus is less than the maximum possible is called a truncated counter.

But why would we want to create any asynchronous truncated counter that is not a MOD-4, MOD-8, or some other modulus that is equal to the power of two. The answer is that we can by using combinational logic to take advantage of the asynchronous inputs on the flip-flop. If we take the modulo-16 asynchronous counter and modified it with additional logic gates it can be made to give a decade (divide-by 10) counter output for use in standard decimal counting and arithmetic circuits.

Such counters are generally referred to as Decade Counters. A decade counter requires resetting to zero when these output count reaches the decimal value of 10, i.e. when DCBA=1010 and to do this we need to feed this condition back to the reset input. A counter with a count sequence from binary "0000".

(BCD = "0") through to "0000" (BCD="9") is generally referred to as a BCD binary-coded-decimal counter because its ten state sequence is that of a BCD code but binary decade counters are more common.

ii) Insert the title "Asynchronous Counter" at the top of the passage. (3 marks)

iii) Embolden, underline and make title font size 12. (3 marks)

iv) Perform drop caps on the first letter of every paragraph by three lines. (3 marks)

v) Insert a header "Logic Circuits" and a footer "Counters". (3 marks)

vi) Make second paragraph italic. (1 mark)

vii) Justify the whole passage. (10 marks)

viii) Save paragraph with a name Tutorial2. (1 mark)

QUESTION 2

A furniture shop sells furniture to customers on credit. The credit terms request the customer to make a deposit of 25%. The balance after the total deposit is paid in monthly instalments over a 24 months period without interest. The shop customers and furniture credit values are:

Name	Furniture	Value	Deposit	Balance	Monthly instalments
Tonderai	Chair	$ 120			
Phil	Table	$ 300			
Arnold	Table	$ 300			
Doreen	Chair	$ 120			
Mary	Sofa	$2 200			
Talent	Chair	$ 120			

a) Design a spreadsheet of the above data and save it as Furniture. (3 marks)

b) Make all titles bold. (2 marks)

c) Sort the sheet in alphabetical order of names. (3 marks)

d) Insert borders on all entries. (2 marks)

e) Use formulae to calculate values for deposit, balance and monthly instalments. (9 marks)

f) Create a fully labelled bar chart using the name and furniture value columns. (5 marks)

g) Save the spreadsheet as Question2 and print. (1 mark)

QUESTION 3

a) Activate a database package that you are familiar with and create a database file called 'EMPLOYEES". (2 marks)

b) Create a table within this database and save it as "EMPLOYEE RECORDS". Print this table. (10 marks)

EMPLOYEE DATABASE

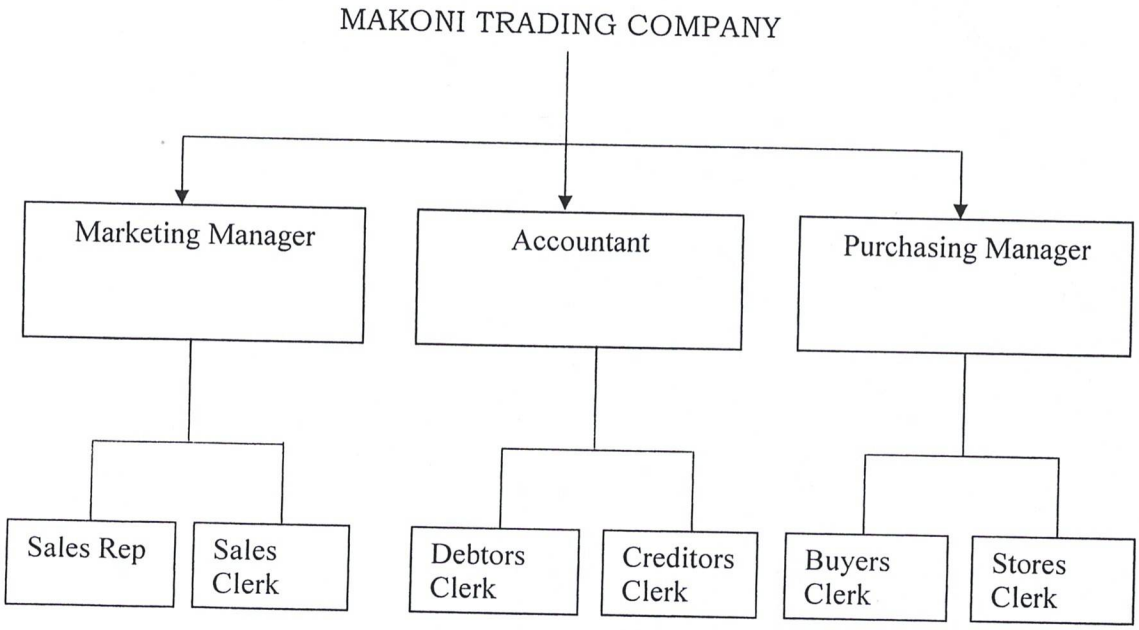
Name	EC Number	Address	Age	Date	Salary
Memory Gumbo	0925005D	2526 Nyameni	35	03/1/2002	$250
Jane Mutasa	0917007A	2027 Cherutombo	30	11/3/2001	$200
Tanya Mwoto	0965005D	6065 Yellow City	36	5/2/2007	$350
Brian Mutenga	0972002F	10109 Budiriro	40	15/5/2008	$150
Joyce Demo	0981001G	1616 R. Park	45	07/7/2007	$180
Clayton Mutasa	0964001B	2687 Glen View	50	01/1/2003	$200
Venus Gomo	0927007K	8012 N. Canaan	37	05/6/2006	$500
Cony Masere	0946006M	1980 Mbare	43	10/8/2003	$400

c) Change the structure of the database as follows:

i) Make EC Number the primary key. (2 marks)
ii) Sort the records by salary in ascending order. (3 marks)
iii) Create a query with Name, EC Number and Salary for employees earning more than $200. Save it as Employee Query. (5 marks)
iv) Design a tabular report and save it as "Employee Report" and print a copy. (3 marks)

QUESTION 4

a) Using a presentation package you have learnt, prepare a slide for the organisational chart for Makoni Trading Company. (20 marks)



b) Enhance main heading by changing font style to Arial Black, size 24 and underline. (3 marks)

c) Save as Organisation and print. (2 marks)

.../jl