2920/205 VISUAL PROGRAMMING July 2018 Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY

MODULE II

VISUAL PROGRAMMING

3 hours

INSTRUCTION TO CANDIDATES

This paper consists of EIGHT questions.

Answer any FIVE of the following EIGHT questions in the answer booklet provided.

All questions carry equal marks.

Candidates should answer the questions in English

This paper consists of 5 printed pages.

Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

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Turn over

1.	(a)	State a toolbox control that would be used to perform each of the following in a Visual Basic program.					
		(i)	Select an object place	ed on a form;		9	
		(ii)	Hold pictures created in art packages;				
		(iii)	Drawing a circle;				
		(iv)	Display bar on a form	m.		(2 marks)	
	(b)	Distinguish between image and ole controls as used in a Visual Basic program.(
	(c)	(i)	Describe a user defi-	ined function as used in progra	mming.	(2 marks)	
		(ii)	With the aid of an example in each case, explain the function of the following string function statements as used in a Visual Basic program.				
			(I) Right ();				
			(II) Ltrim();		19		
			(III) Mid ().			(6 marks)	
	(d)	Write a program in Visual Basic that would allow a user to enter a string through the use of an inputbox function. The program should then display; the string on a listbox control and the total number of items entered in a listbox on a label. Attach the code to a command button. (6 marks)					
2/	(a)	Outline the function of each of the following of label properties in a Visual Basic program.					
		(i)	Caption;	200			
		(ii)	Name;				
		(iii)	Palette.			(3 marks)	
	(b)	Write a program in Visual Basic that would activate a form to appear for only four seconds. Attach the code to a time event. (4 marks					
	(c)	Explain a circumstance that could make a programmer to use each of the following debugging tools in a Visual basic program.					
		(i)	Immediate window;	1.00	the magratu	Works girls-	
		(ii)	Watch window;	at 12 Visualize 2-16 hour	1.7		
		(iii)	Local window.	sealing-		(6 marks)	
	(d)	rectangle through the use of a text boxes. The program should use a function to find the area of the rectangle. Attach the code to a command button. (7 marks)					
2920/205 July 2018			pincase unl	, hutter_click ()	bexle fext		
M		8	Africation (L X litt v lister)	Aver = input	boxolotext (LX	
			Andrew - Int	LX (with X work)			

- Explain the function of menu control array as used in a menu editors, (2 marks) 3. (a) Distinguish between the drivelisthox and dirlistbox controls as used in a Visual Basic (b) (4 marks) program. Write a program in Visual Basic programing language that would calculate the volume (c) of a cuboid given that the height is 20, length is 45 and the width is 35. The program should then display the results on the form. Attach the code to a command button click Dim hi Liva (d) Ali a projection () Volume (5 marks) Ali a programming student would like to write a program that would pass 10 values into 9[1,10] (I mark) State the declaration statement for the array. Velamo - Lxwxh State the most appropriate iteration statement for the program giving a reason (ii) (2 marks) for your answer. Incase he wants to increase the number of values at run time from 10 to 30.State (iii) (2 marks) the Visual Basic statement that would help him achieve his goal. Explain two reasons that could make Ali to use dynamic arrays in his program. (iv) (4 marks) (3 marks) Outline three characteristics of a Visual Programming Language. Explain each of the following terms as used in database connection. The following terms as used in database connection. (a) (b) Database engine; (i) Database control; (ii) (6 marks) Recordset. (111)
 - (c) Distinguish between a two dimensional array and a control array as used in a Visual Basic program.

 A two dimensional array and a control array as used in a Visual (4 marks)
 - (d) Table 1 show a criteria used by a member's club to award discount to its clients. The entry fee is Kshs 1000 per head. Use it to answer the question that follows.

Age	Status	Discount	
1 - 10	junior	4.5	
11-18	Senior	2.5	
19 -30	Adult	1.5	
Above 30	Not allowed in the club		

Write a program in Visual Basic programing language that would accept the age of a member and the status of a member through text boxes. The program should then compute the discount allowed and display the status and the discount on a form. Use an If statement.

(7 marks)

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	200	2. (0)	Describe	he term <i>data aware con</i>	trol as used in Visual Basic.	(2 marks)
	dal . Co	(ii)			ols in a Visual basic program.	
might- C	(b) Stat Vist	e three differen	22000000000	rdure and function procedure as flesh of a city to the city of th	(4 marks) s used in a
	(c)	Writ	te a program ir	n Visual Basic program	in Spreament always	
Oriver	and Lite	an ir	put box. The	program then outputs th	e message "valid number" on a	nteger through
25 in	Just vato	qo the n	nessage "inval	on mark when the intege lid number" on a messag Ok and Cancel options.	r entered is less than five other	wise it outputs The message (8 marks)
maker	6. ° (a)	State	the recommer	nded prefix for each of t	he following datatypes in a Vis	
IFXT	9	(i)	Boolean;	Bealin		
megle	(Val)	(ii)	Variant;	Var	51	
	Uo	(iii)	Single;	Int		
		(iv)	Date;	DIE		(2 marks)
8.	(b)	Descr	ibe three char	acteristics of an object i	n a Visual Basic environment.	
130	(c)	Distin	puish between	Jea barie &	n a Visual Basic environment.	(6 marks)
13	11.150/70.0	00/30/005	Buran octubel	l data grid and ms flex g	rid as used in Visual Basic pro	gramming de object
4	(d)	Write	a program in \	Visual Basic that would	copy all the elements in an arra	(4 marks) Gouto
B :		to ano	ther array of the	ne same size. The progra	copy all the elements in an arra	y of size 1() of both
			Use for next h		Attach the code to a command	button click
7	(a)	Explain	n two function	ns of each of the followi	ng menu editor options in a Vis	(8 marks) sual Basic
		(i)	Checked;			
		(ii)	Enabled. The	nis evalues		(4 marks)
	(b)	Describ	be each of the	following sorting algorithm	hms as used in programming.	(4 marks)
	134	(i)	Bubble;	aguit	runs as used in programming,	
	fr.	(ii)	Shell;			1
		(iii)	Merge.			(6 marks)
	(c)	With the	e aid of an exa	mple, state the different	re herrore	
9		used in	With the aid of an example, state the difference between an index and a subscript as used in an array. (4 marks)			
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7.10	100000					

(d) Write a program in Visual Basic programming language to display the following pattern on a form when the program is executed. Use for ...next loop. (6 marks)

* * * * * * *

(a) Outline four sections of report design in a Visual Basic program.

(4 marks)

- (b) (i) Write a Visual Basic statement for performing each of the following:
 - move to the first record in a table attached to a data control named dtaExample;
 - (II) find a record with a data control named dtaExample:
 - (III) add a record with a data control named dtaExample. (3 marks)
 - (ii) Anne would like to connect a form created in Visual Basic to a database using datalistbox properties. Describe three such properties that she would use.
 (6 marks)
- (c) The values 11 13 18 25 26 30 34 36 41 43 are stored in an array. Showing all the passes and steps, search for the item 63 using a binary search technique. (7 marks)

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