

TRINIDAD AND TOBAGO
SECONDARY ENTRANCE ASSESSMENT

TRINIDAD AND TOBAGO
SECONDARY ENTRANCE ASSESSMENT

ANSWER BOOKLET

ANSWER BOOKLET

FILL IN ALL THE INFORMATION REQUESTED CLEARLY AND LEGIBLY.

TEST CODE

0	4	2	3	4	0	1	1
---	---	---	---	---	---	---	---

TEST CODE

0	4	2	3	4	0	1	1
---	---	---	---	---	---	---	---

SUBJECT MATHEMATICS 2014

SUBJECT MATHEMATICS 2014

Please place your label here.

Please place your label here.

READ THE FOLLOWING INSTRUCTIONS CAREFULLY:

1. This test is divided into **THREE** sections.
2. Make sure you read the instructions before you start to work on any section.
3. Write all your answers in this test booklet.
4. **DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.**

WRITE THE NAME OF YOUR SCHOOL BELOW:

WRITE YOUR FULL NAME BELOW:

--

DATE OF BIRTH

<i>Day</i>	<i>Month</i>	<i>Year</i>

SEX { MALE
 FEMALE

DO NOT WRITE IN THIS SPACE

FOLDER NUMBER

DO NOT WRITE IN THIS SPACE

FOLDER NUMBER

Instructions for the Mathematics Test

You are NOT allowed to use calculators.

This test has THREE sections with a total of 46 questions.

SECTION I has 20 questions (Nos. 1 to 20).

SECTION II has 20 questions (Nos. 21 to 40).

SECTION III has 6 questions (Nos. 41 to 46).

You have **75 minutes** for this test.

Answer ALL questions.

Read EACH question CAREFULLY before answering it.

Show ALL working in the column provided.

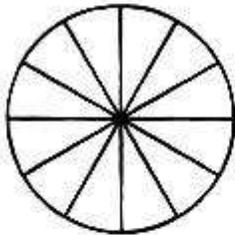
Marks will be given for correct steps taken.

Work carefully but do NOT spend too much time on any one question.

DO NOT BEGIN UNTIL YOU ARE TOLD TO DO SO.

SECTION I

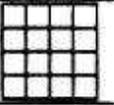
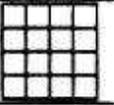
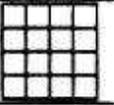
Each question is worth 1 mark. Answer ALL questions.
Show ALL working in the Working Column.

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
1.	$\begin{array}{r} 417 \\ - 392 \\ \hline \end{array}$ <p>Answer _____</p>		1.		
2.	<p>Write 3.49 to the NEAREST TENTH.</p> <p>Answer _____</p>		2.		
3.	<p>A pizza was cut into 12 equal slices as shown below.</p>  <p>Shade $\frac{1}{3}$ of the pizza.</p>		3.		
4.	<p>Write ONE of the following symbols</p> <p style="text-align: center;">> = <</p> <p>in the box below so that the number sentence is correct.</p> <p style="text-align: center;">$\frac{3}{4}$ <input type="text"/> $\frac{7}{12}$</p>		4.		

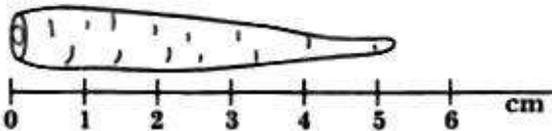
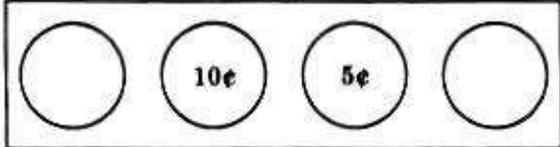
GO ON TO THE NEXT PAGE

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
5.	<p>A piece of ribbon is $\frac{7}{10}$ m long.</p> <p>A piece measuring $\frac{2}{5}$ m is cut off.</p> <p>What is the length, in metres, of the remaining piece?</p> <p>Answer _____ m</p>		5.		
	<p>Questions 6 and 7 refer to the following information.</p> <p>In a spelling contest, Peter was given 40 words to spell. He spelt 32 words correctly.</p> <p>6. What fraction of the total number of words did he spell correctly?</p> <p>Answer _____</p> <p>7. Peter must spell at least 90% of the words correctly to qualify for a consolation prize. How many words should he have spelt correctly to qualify?</p> <p>Answer _____ words</p>		6.		
			7.		

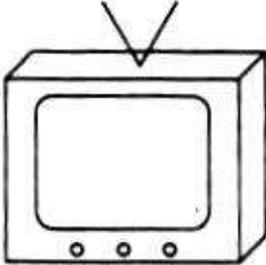
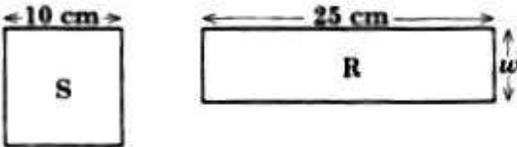
GO ON TO THE NEXT PAGE

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here																	
			KC	AT	PS															
8.	<p>The first four shapes in a pattern are shown below. EACH shape is made from squares of the same size.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Shape</th> <th>1st</th> <th>2nd</th> <th>3rd</th> <th>4th</th> </tr> </thead> <tbody> <tr> <td>Pattern</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Number of Squares</td> <td>1</td> <td>4</td> <td>9</td> <td>16</td> </tr> </tbody> </table> <p>How many squares would form the 6th shape?</p> <p>Answer _____ squares</p>	Shape	1 st	2 nd	3 rd	4 th	Pattern					Number of Squares	1	4	9	16		8.		
Shape	1 st	2 nd	3 rd	4 th																
Pattern																				
Number of Squares	1	4	9	16																
DO NOT WRITE HERE			KC (2)	AT (4)	PS (2)	TOTAL (8)														
	<p>Complete correctly the sentences in Questions 9 and 10.</p> <p>9. 1 litre = _____ cm³.</p> <p>10. 120 minutes = _____ hours.</p>		9.			10.														

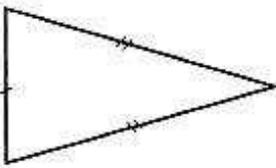
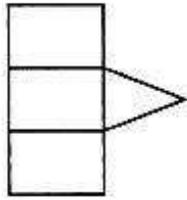
GO ON TO THE NEXT PAGE

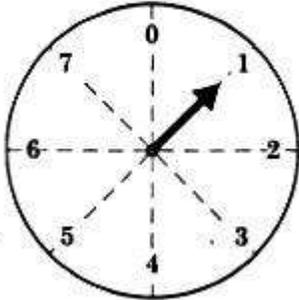
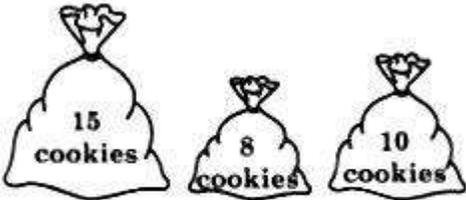
No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
11.	<p>The length of a carrot is measured below.</p>  <p>What is its length to the NEAREST centimetre?</p> <p>Answer _____ cm</p>		11.		
12.	<p>A square sheet of paper has sides of 11 cm.</p> <p>What is its area?</p> <p>Answer _____ cm²</p>		12.		
13.	<p>Shari has 4 coins on her desk. They have a total value of 50 ¢. The value of 2 coins is shown in the diagram below.</p>  <p>Write the correct value on EACH of the other 2 coins.</p>		13.		

GO ON TO THE NEXT PAGE

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here								
			KC	AT	PS						
14.	<p>A sales clerk is preparing a tag to show the selling price for a television.</p>  <p>Complete the tag below.</p> <table border="1" data-bbox="272 873 753 1087"> <tr> <td>Cost Price</td> <td>\$1 740.00</td> </tr> <tr> <td>Discount</td> <td>\$174.00</td> </tr> <tr> <td>Selling Price</td> <td></td> </tr> </table>	Cost Price	\$1 740.00	Discount	\$174.00	Selling Price			14.		
Cost Price	\$1 740.00										
Discount	\$174.00										
Selling Price											
15.	<p>A square, labelled <i>S</i>, and a rectangle, labelled <i>R</i>, are shown below. (The shapes are not drawn to scale.)</p>  <p>Both shapes have the same area. Calculate the width, <i>w</i>, of rectangle <i>R</i>?</p> <p>Answer _____</p>		15.								
DO NOT WRITE HERE			KC (2)	AT (4)	PS (1)	TOTAL (7)					

GO ON TO THE NEXT PAGE

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
16.	<p>The triangle shown below has ONLY two sides of equal length.</p>  <p>What type of triangle is it?</p> <p>Answer _____</p>		16.		
17.	<p>Complete the drawing below to show the net of a triangular-based prism.</p> 		17.		

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here			
			KC	AT	PS	
18.	<p>Sunil changes the position of the arrow on the circular dial shown below.</p>  <p>He makes a quarter turn ANTI-CLOCKWISE. At which number is the arrow now pointing ?</p> <p>Answer _____</p>				18.	
DO NOT WRITE HERE			KC (1)	AT (1)	PS (1)	TOTAL (3)
19.	<p>Cookies were packaged in three bags as shown below.</p>  <p>What is the mean number of cookies in a bag?</p> <p>Answer _____ cookies</p>				19.	

GO ON TO THE NEXT PAGE

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here														
			KC	AT	PS												
20.	<p>The graph below shows the number of haircuts a barber did on five days of a particular week.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Day</th> <th>Number of Haircuts</th> </tr> </thead> <tbody> <tr> <td>Monday</td> <td></td> </tr> <tr> <td>Tuesday</td> <td></td> </tr> <tr> <td>Wednesday</td> <td></td> </tr> <tr> <td>Thursday</td> <td></td> </tr> <tr> <td>Friday</td> <td></td> </tr> </tbody> </table> <p>The total number of haircuts done in the five days is 75.</p> <p>How many haircuts were done by the barber on Monday?</p> <p style="text-align: center;">Answer _____ haircuts</p>	Day	Number of Haircuts	Monday		Tuesday		Wednesday		Thursday		Friday					
		Day	Number of Haircuts														
Monday																	
Tuesday																	
Wednesday																	
Thursday																	
Friday																	
			20.														
DO NOT WRITE HERE			KC (0)	AT (1)	PS (1)	TOTAL (2)											

SECTION II

Each question is worth either 2 or 3 marks. Answer ALL questions.
Show ALL working in the Working Column.

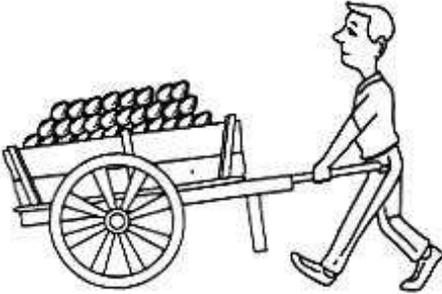
No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
21.	$5\frac{1}{2} - 2\frac{5}{8} =$ <p>Answer _____ (2 marks)</p>		21.		
22.	<p>Simplify, using decimal notation,</p> $7 + \frac{5}{10} + \frac{3}{100}$ <p>Answer _____ (2 marks)</p>		22.		
23.	<p>Carrie had \$60 as an allowance for the week. She spent $\frac{2}{5}$ of it on snacks, $\frac{1}{4}$ of it on stickers and saved the remainder.</p> <p>(a) What fraction did she spend on snacks and stickers together?</p> <p>Answer _____ (1 mark)</p> <p>(b) How much money did she save?</p> <p>Answer \$ _____ (1 mark)</p>		23.		

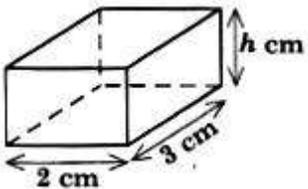
GO ON TO THE NEXT PAGE

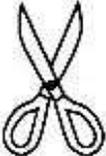
No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
24.	<p>In a car park, $\frac{3}{5}$ of the cars are blue and the remainder are white. What percentage of the cars are white?</p> <p>Answer _____ % (2 marks)</p>		24.		
25.	<p>Alim collected seashells over the weekend. He collected 45 seashells on Saturday and three times as many on Sunday.</p> <p>(a) How many seashells did Ali collect on Sunday?</p> <p>Answer _____ seashells (1 mark)</p> <p>(b) What percentage of the seashells collected over the weekend did he collect on Saturday?</p> <p>Answer _____ % (2 marks)</p>		25.		

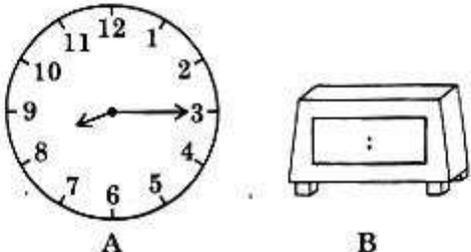
GO ON TO THE NEXT PAGE

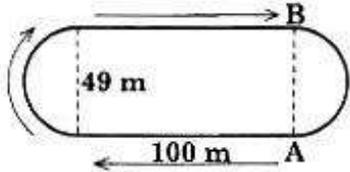
No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here										
			KC	AT	PS								
26.	<p>The table below shows the points scored for hitting three different coloured targets in a video game.</p> <table border="1"><thead><tr><th>Colour</th><th>Number of Points</th></tr></thead><tbody><tr><td>White</td><td>2</td></tr><tr><td>Blue</td><td>3</td></tr><tr><td>Gold</td><td>5</td></tr></tbody></table> <p>Ana scored 53 points in playing the game. She hit the blue target 4 times and the white target 3 times.</p> <p>How many times did she hit the GOLD target?</p> <p>Answer _____ times (3 marks)</p>	Colour	Number of Points	White	2	Blue	3	Gold	5		26.		
Colour	Number of Points												
White	2												
Blue	3												
Gold	5												

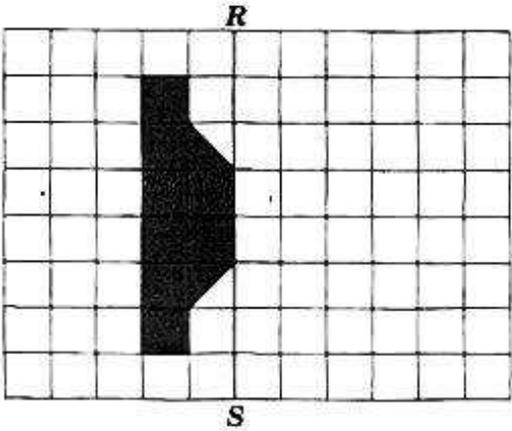
No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here			
			KC	AT	PS	
27.	<p>A fruit vendor transported 360 mangoes to the market. While transporting the mangoes, 10% of them were damaged.</p>  <p>(a) How many mangoes were damaged?</p> <p>Answer _____ mangoes (1 mark)</p> <p>(b) The mangoes that were not damaged were packed into boxes of 12. How many boxes were used to pack these mangoes?</p> <p>Answer _____ boxes (2 marks)</p>		27.			
28.	<p>Five years ago, Paul was $\frac{3}{8}$ his father's age. Paul's father is now 37 years old. How old is Paul now?</p> <p>Answer _____ (3 marks)</p>		28.			
DO NOT WRITE HERE			KC (5)	AT (10)	PS (5)	TOTAL (20)

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here								
			KC	AT	PS						
29.	<p>The volume of the cuboid shown below is 48 cm^3. The length of the cuboid is 3 cm, the width is 2 cm and the height is h cm.</p>  <p>Calculate the value of h.</p> <p>Answer _____ (2 marks)</p>		29.								
30.	<p>Burns ran the following distances over a 2-week period while training for the Olympics.</p> <table border="1" data-bbox="305 1239 738 1459"> <thead> <tr> <th>Week</th> <th>Distance Ran</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>3 km 800 m</td> </tr> <tr> <td>2</td> <td>2.75 km</td> </tr> </tbody> </table> <p>What is the TOTAL distance covered by Burns over the 2 weeks?</p> <p>Answer _____ (2 marks)</p>	Week	Distance Ran	1	3 km 800 m	2	2.75 km		30.		
Week	Distance Ran										
1	3 km 800 m										
2	2.75 km										

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here	
			KC	AT
31.	<p>Mr Lee borrowed \$8000 from the bank to buy a used car. He paid simple interest at a rate of 12% per year for a period of 3 years.</p> <p>How much simple interest did Mr Lee pay?</p> <p>Answer \$ _____ (2 marks)</p>		31.	
32.	<p>Jane bought the 3 items shown below at the supermarket.</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  Notebook \$1.90 </div> <div style="text-align: center;">  Comb \$2.10 </div> <div style="text-align: center;">  Scissors \$3.65 </div> </div> <p>(a) What is the TOTAL cost of the 3 items?</p> <p>Answer \$ _____ (1 mark)</p> <p>(b) Calculate Jane's EXACT change if she paid for the items with a \$20.00 bill.</p> <p>Answer \$ _____ (2 marks)</p>		32.	

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
33.	<p>The time shown on Clock A is 15 minutes AHEAD of the correct time.</p>  <p>(a) Insert the correct time on Clock B.</p> <p>Answer _____ (1 mark)</p> <p>(b) At the end of the next hour, Clock A gained an additional 5 minutes ahead of the correct time.</p> <p>What time will be shown on Clock A?</p> <p>Answer _____ (2 marks)</p>				
			33.		

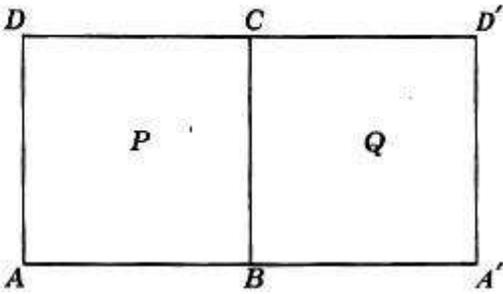
No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here			
			KC	AT	P	
34.	<p>The diagram below shows a cycling track consisting of a rectangle and two semicircles.</p>  <p>A cyclist starts at point A and cycles in the direction of the arrows to point B. What distance did he cover? $(\pi = \frac{22}{7})$</p> <p>Answer _____ metres (3 marks)</p>		34.			
35.	<p>The school cafeteria bought 5 dozen silly bands at \$15 per dozen and sold them for \$2 EACH.</p> <p>(a) What was the profit, in dollars, made by the school cafeteria?</p> <p>Answer \$ _____ (2 marks)</p> <p>(b) Calculate the profit as a percentage of the cost price.</p> <p>Answer _____ % (1 mark)</p>		35.			
DO NOT WRITE HERE			KC (4)	AT (10)	PS (4)	TOTAL (18)

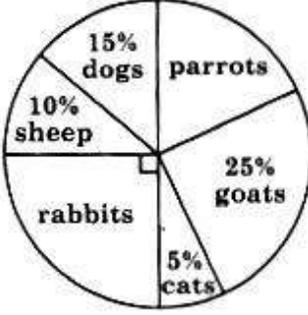
No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
36.	<p>The diagram below shows an incomplete plane shape and one of its lines of symmetry, <i>RS</i>.</p>  <p>(a) Complete the drawing of the shape. (1 mark)</p> <p>(b) Draw another line of symmetry, <i>PQ</i>, for the completed shape. (1 mark)</p>		36.		

GO ON TO THE NEXT PAGE

No.	TEST ITEMS	WORKING COLUMN	<i>Do Not Write Here</i>		
			KC	AT	PS
37.	<p>Use the diagram below to answer the questions that follow.</p>  <p>State the names of:</p> <p>(a) ONE plane shape in the diagram above</p> <p>Answer _____ _____ (1 mark)</p> <p>(b) ONE solid that would be needed to make a model of the building</p> <p>Answer _____ (1 mark)</p>		37.		

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
38.	<p>The diagram below shows a cylindrical package closed at both ends.</p>  <p>(a) How many faces does the package have?</p> <p>Answer _____ faces (1 mark)</p> <p>(b) Draw the net of the package. (2 marks)</p>		38.		

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
39.	<p>The shape $ABCD$ below is moved from its position at P to the position at Q so that Corner A is now at A' and Corner D is now at D'.</p>  <p>(a) What is the name of this movement?</p> <p>Answer _____ (1 mark)</p> <p>(b) Describe the movement in (a) FULLY.</p> <p>Answer _____ (1 mark)</p> <p>(c) Under the same movement in (a), describe what happens to Corner B.</p> <p>Answer _____ _____ (1 mark)</p>				
			39.		
DO NOT WRITE HERE			KC (2)	AT (5)	PS (3)
			TOTAL (10)		

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here			
			KC	AT	PS	
40.	<p>The pie chart below shows the favourite pets of the pupils in Standard 3.</p>  <p>(a) Which TWO pets are EQUALLY favoured?</p> <p>Answer _____ (1 mark)</p> <p>(b) What percentage of the pupils in Standard 3 favour parrots?</p> <p>Answer _____ % (1 mark)</p>		40.			
DO NOT WRITE HERE			KC (1)	AT (1)	PS (0)	TOTAL (2)

GO ON TO THE NEXT PAGE

SECTION III

Each question is worth 5 marks. Answer ALL questions.
Show ALL working in the Working Column.

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
41.	<p>A fruit vendor has 160 fruits in his stall. Of these, $\frac{3}{8}$ are mangoes and 20% are plums. The remainder are avocados.</p> <p>(a) How many mangoes does he have?</p> <p>Answer _____ mangoes (1 mark)</p> <p>(b) Express the number of fruits that are plums as a DECIMAL fraction.</p> <p>Answer _____ (1 mark)</p> <p>(c) Calculate the number of avocados in the stall.</p> <p>Answer _____ avocados (3 marks)</p>		41.		

GO ON TO THE NEXT PAGE

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here			
			KC	AT	PS	
42.	<p>Nine light posts are evenly spaced along a highway. A total of 144 plastic pipes of the same length are placed EQUALLY between the 9 posts.</p>  <p>(a) How many pipes are placed between the first and second posts?</p> <p>Answer _____ pipes (3 marks)</p> <p>(b) Each pipe is 7 m long. The pipes are connected end-to-end (just touching each other) between the posts.</p> <p>What is the distance between the first and second posts?</p> <p>Answer _____ m (2 marks)</p>		42.			
DO NOT WRITE HERE			KC (3)	AT (5)	PS (2)	TOTAL (10)

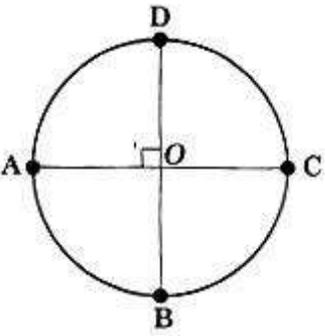
GO ON TO THE NEXT PAGE

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
43.	<p>An appliance store offers $33\frac{1}{3}\%$ discount on cash purchases. The original price on a refrigerator is \$8400.</p> <p>(a) What is the discounted price on the refrigerator?</p> <p>Answer \$ _____ (2 marks)</p> <p>(b) VAT at 15% is calculated on the discounted price. How much is the VAT?</p> <p>Answer \$ _____ (1 mark)</p> <p>(c) What is the FINAL cost of the refrigerator when purchased for cash?</p> <p>Answer \$ _____ (2 marks)</p>		43.		

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here								
			KC	AT	PS						
44.	<p>Lance's weekly wage is calculated using the rates in the table below. Lance works for 8 hours daily.</p> <table border="1" style="margin: 10px auto; width: 80%;"> <thead> <tr> <th colspan="2">Wage Rates</th> </tr> </thead> <tbody> <tr> <td>\$10 per hour during the week</td> <td>(Monday to Friday)</td> </tr> <tr> <td>\$15 per hour for weekends</td> <td>(Saturday and Sunday)</td> </tr> </tbody> </table> <p>(a) During one week, Lance worked on Monday, Wednesday, Friday and Saturday. How many hours did Lance work in that week?</p> <p style="text-align: right;">Answer _____ hours (1 mark)</p> <p>(b) Using the rates in the table above, calculate Lance's wage for that week.</p> <p style="text-align: right;">Answer \$ _____ (2 marks)</p> <p>(c) Lance's wage last week was \$400. He worked on Saturday and Sunday. How many HOURS did he work from Monday to Friday?</p> <p style="text-align: right;">Answer _____ hours (2 marks)</p>	Wage Rates		\$10 per hour during the week	(Monday to Friday)	\$15 per hour for weekends	(Saturday and Sunday)				
Wage Rates											
\$10 per hour during the week	(Monday to Friday)										
\$15 per hour for weekends	(Saturday and Sunday)										
DO NOT WRITE HERE			KC (3)	AT (5)	PS (2)	TOTAL (10)					

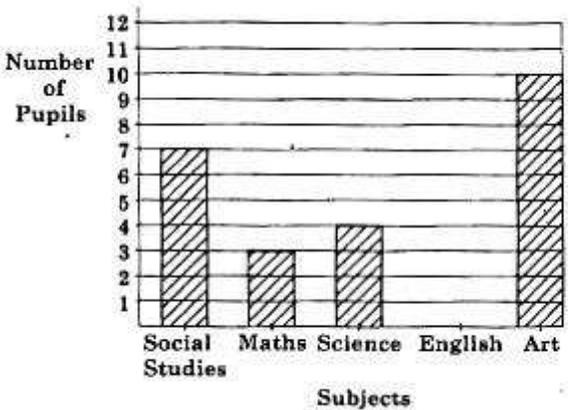
44.

GO ON TO THE NEXT PAGE

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
45.	<p>Four points, A, B, C, D, are equally spaced around the edge of a circular spinner and connected to the centre O as shown in the diagram below.</p>  <p>(a) Raj turns the spinner so that A moves in an anti-clockwise direction to the position of B.</p> <p>What was the size of the angle through which the spinner moved?</p> <p>Answer _____ (1 mark)</p> <p>(b) Describe FULLY how Raj can turn the spinner so that B moves to the position of D.</p> <p>Answer _____ _____ _____ (2 marks)</p>				

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
	<p>(c) Raj turned the spinner so that C moves 225° in a clockwise direction to a point M.</p> <p>Label the point M on the diagram on page 28.</p> <p style="text-align: right;">(2 marks)</p>		45.		
DO NOT WRITE HERE		KC (1)	AT (2)	PS (2)	TOTAL (5)

GO ON TO THE NEXT PAGE

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here		
			KC	AT	PS
46.	<p>The incomplete bar graph below shows the favourite subjects of the 30 pupils in a Standard 5 class.</p>  <p>(a) How many more pupils favour Social Studies than Maths?</p> <p>Answer _____ pupils (1 mark)</p> <p>(b) What percentage of the class chose Maths as their favourite subject?</p> <p>Answer _____ % (1 mark)</p> <p>(c) How many pupils chose English as their favourite subject?</p> <p>Answer _____ pupils (2 marks)</p>				

No.	TEST ITEMS	WORKING COLUMN	Do Not Write Here			
			KC	AT	PS	
	(d) Complete the graph on page 30 by drawing the bar to represent the number of pupils whose favourite subject is English. <p style="text-align: right;">(1 mark)</p>		46.			
DO NOT WRITE HERE			KC (1)	AT (2)	PS (2)	TOTAL (5)

END OF TEST

IF YOU FINISH BEFORE TIME IS CALLED, CHECK YOUR WORK ON THIS TEST.