APPRENTICE MOCK APTITUDE TEST

Attached find a Mock Paper giving indications of types of questions you will be asked to answer.

Topic		**Time**	**Mark**
Section 1	**Applied Arithmetic**	**10 Mins.**	
Section 2	**Arithmetic**	**15 Mins.**	
Section 3	**Mechanical Aptitude**	**10 Mins.**	
Section 4	**Spatial Awareness**	**10 Mins.**	
Section 5	**Logic of reasoning**	**15 Mins.**	
Total Time 1 Hour			
Total Mark			

Answers are at end of Paper

Section 1 – Applied Arithmetic (10 Minutes)

Lengths		Answer	Mark
1	How many millimetres in 9 centimetres?		
2	How many centimetres in 2.7 metres?		
3	How many millimetres in 3.4 metres?		
4	How many centimetres in 432 millimetres?		
5	How many metres in 6.5 kilometres?		

Areas		Answer	Mark
6	How many square centimetres are in 0.8 square metres?		
7	Calculate the area of a 35mm x 27mm piece of sheet metal?		
8	How many square centimetres are in an area measuring 1.4 metres x 3 metres?		
9	How many square metres are in 5 square kilometres		

Volumes			
10	What is the volume of a cube of 7cm length, 5cm width and 1.2cm height?		
11	What is the volume of a tank 9m x 5m x 5m?		
12	If 1 litre = 1000 cubic centimetres, then how many cubic centimetres are in 8.6 litres?		

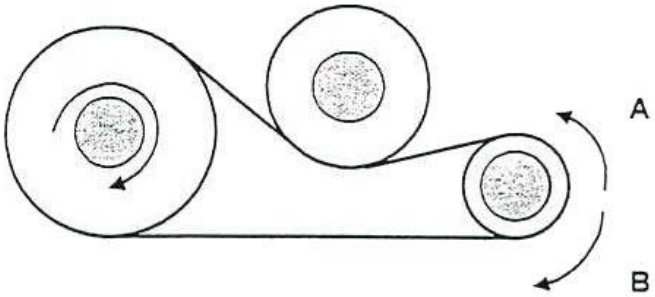
Total	

Section 2 – Arithmetic (15 Minutes)			
		Answer	**Mark**
1	**Add 233, 59 and 180**		
2	**Subtract 3.123 from 4.723**		
3	**Multiply 354 x 8**		
4	**Divide 13.8 by 3**		
5	**A sum of £1640 is invested in a bank. The rate of interest is 4.5% per annum. Calculate the simple interest gained in 9 months.**		
6	**A circle has a diameter of 30cms. Find the area of this circle ?**		
7	**A table top is a semi circle in shape. The diameter is 120cms. A metal edge has to be fitted around its edge. What is the length of the metal edge.**		
8	**A child had 6 pieces of wood they each measured 41cm, 25cm, 36, cm,52 cm,49 cm and 30cms. What is their average length.**		
9	**A tube has an inside diameter of 50 cms and measures 100 cms in length. What is the volume of the tube .**		
10	**In fractions what is $^{3}/_{16} + {}^{5}/_{8}$**		
11	**Calculate 25 x (71.4 – 3.25)**		
12	**Calculate 2. $^{1}/_{6}$ + 3. $^{3}/_{12}$**		
13	**Calculate 5.6 – (3.7 – 1.7)**		
14	**In a right angled triangle the other angles are x and y. X = 30° what angle is Y ?**		

Total	

Section 3 – Mechanical Aptitude (10 Minutes)

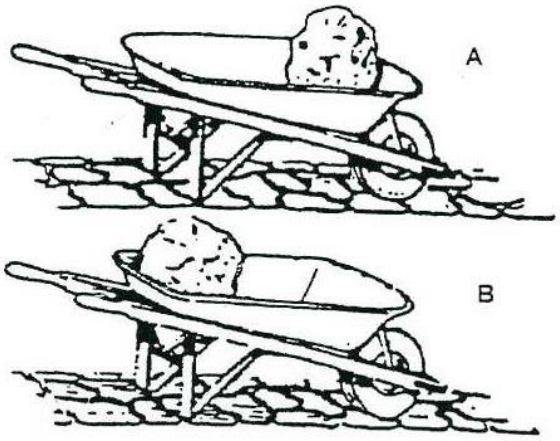
1.



If the large wheel moves in the direction shown, in which direction will the small one move?

(If either, Mark C)

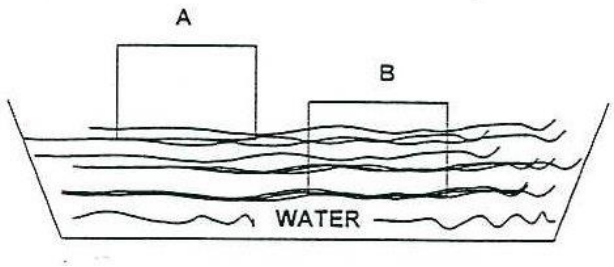
2.



Which way will it be easier to carry the rock in the wheelbarrow?

(If equal, Mark C)

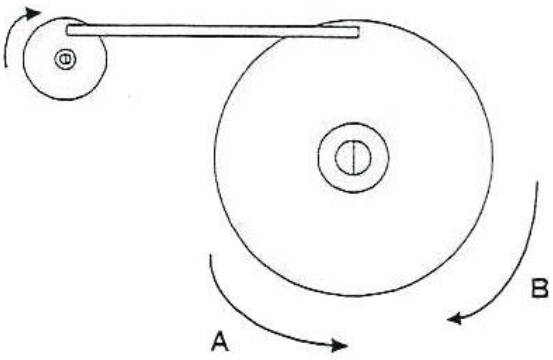
3.



Which is made of heavier material?

(If equal, Mark C)

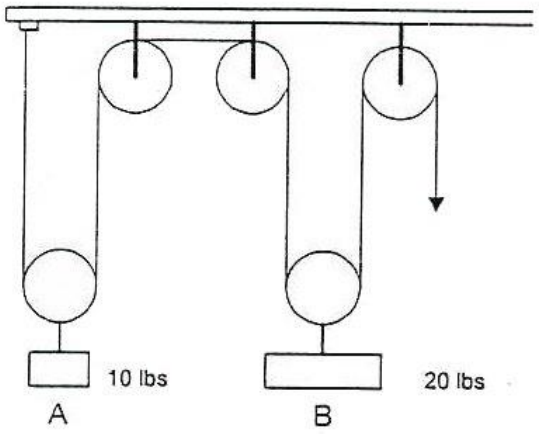
4.



When the small wheel turns in the direction shown, the big wheel will:

A - Turn in direction A
B - Turn in direction B
C - Move back and forth

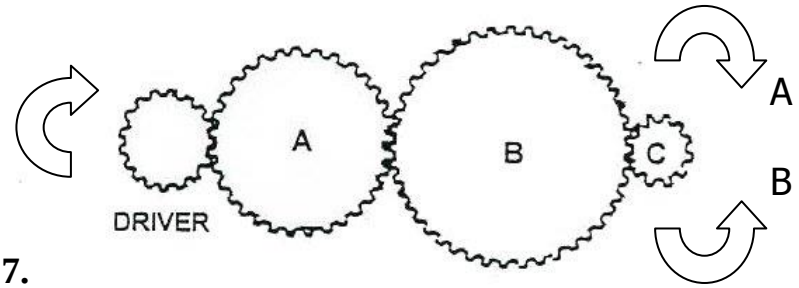
5.



When the rope is pulled as shown, which weight will be lifted first?

(If both at once, Mark C)

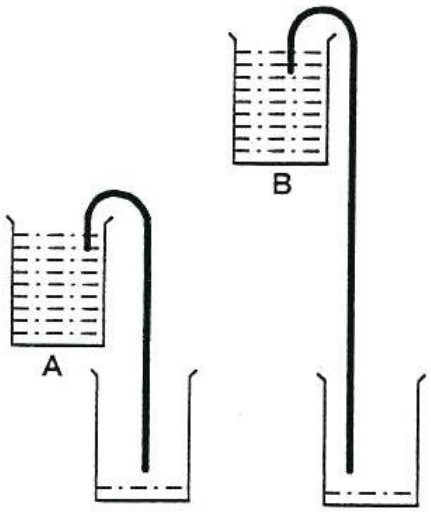
6.



If the driver turns in the direction of the arrow
Which direction will wheel C rotate ?

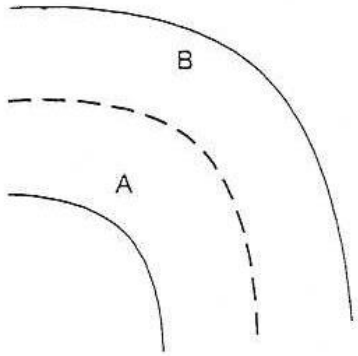
7.

Which tank will empty faster?



(If equal, Mark C)

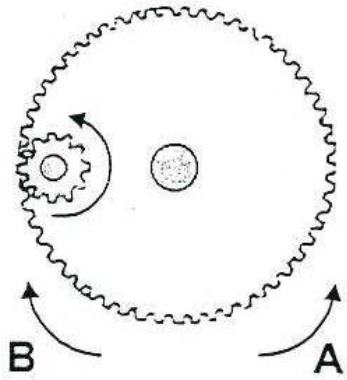
8.



Which side of the road should be built higher?

(If equal, Mark C)

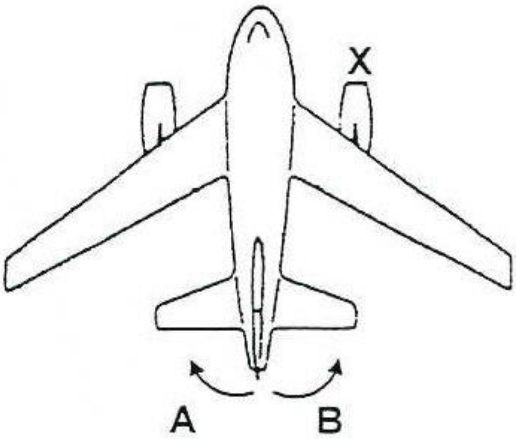
9



If the small wheel goes in the direction shown, in which direction will the large wheel go?

(If equal, Mark C)

10.



To keep the plane going straight if the engine "X" stops, in which direction should the rudder move?

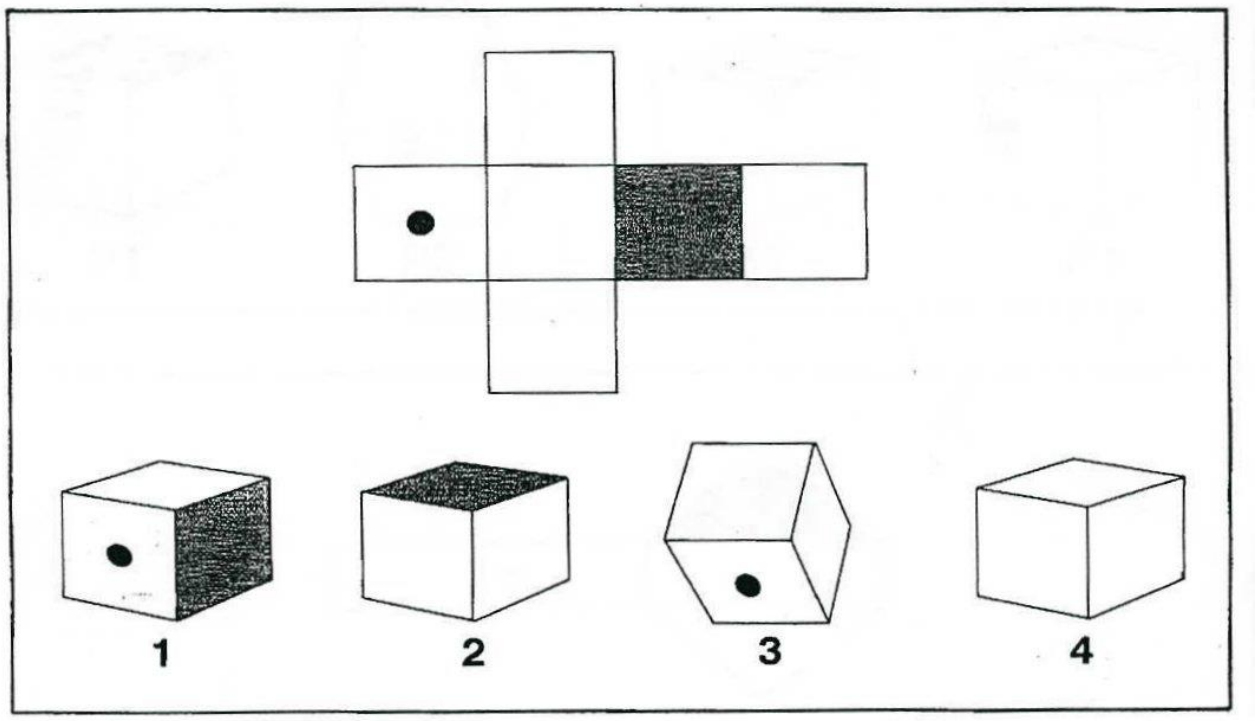
(If neither, Mark C)

Section 4 – Spatial Awareness (10 Minutes)

In this test, you have to imagine what a flat pattern would look like if it were cut out and folded into a solid object. The patterns have to be folded along the black lines, so that the markings are on the OUTSIDE of the solid object.

You have to decide if each of the solid objects shown below the flat pattern could be made from it when folded. Answer "NO" if an object definitely could not be made, and "YES" if it definitely could be made. If you cannot be sure without seeing the hidden sides, answer "YES".

Look at this example:



If the pattern were folded up it would form a cube with the black face and the dot on opposite sides.

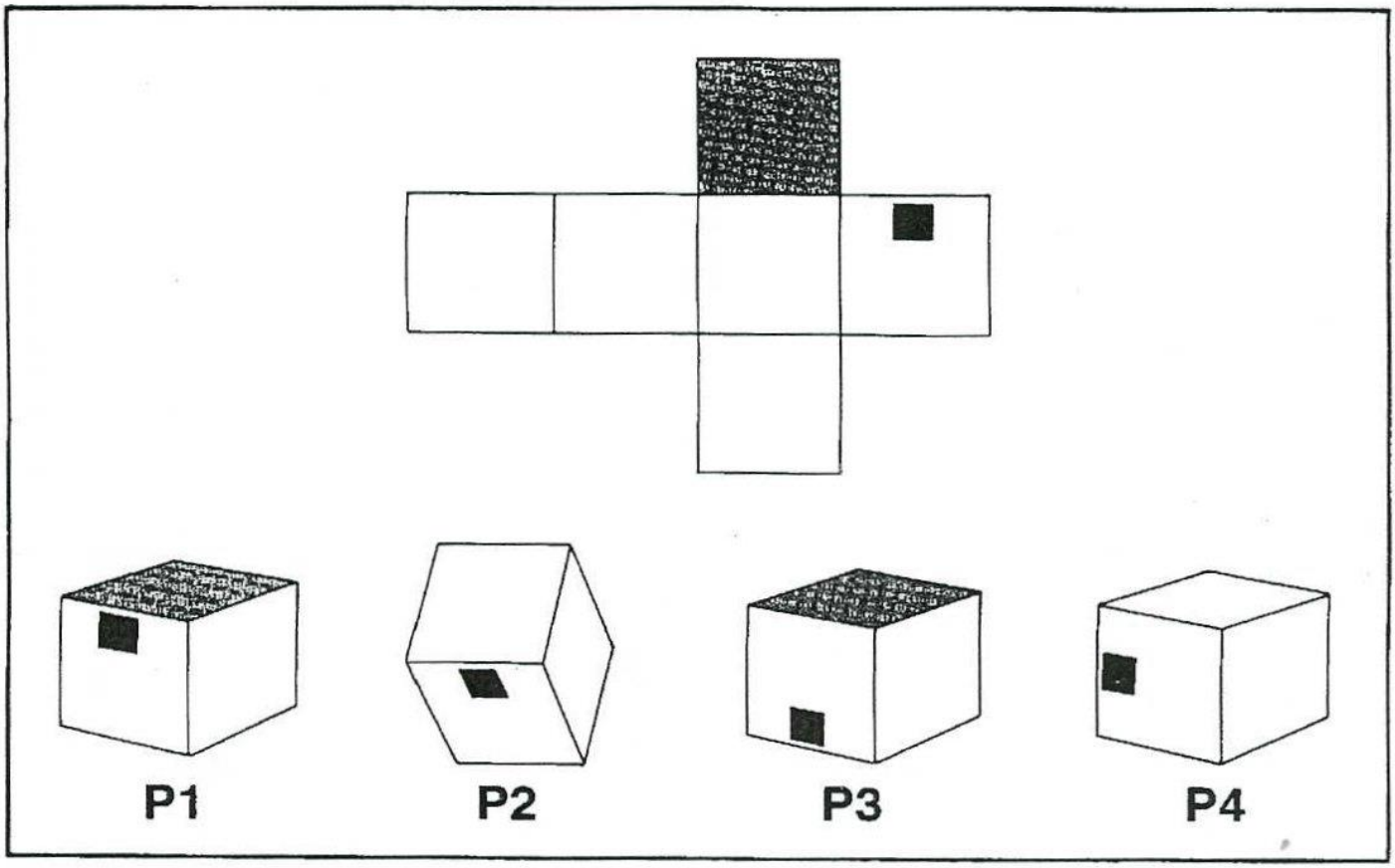
The answer to No.1 is NO since it shows a cube with a Dot & Black face next to each other.

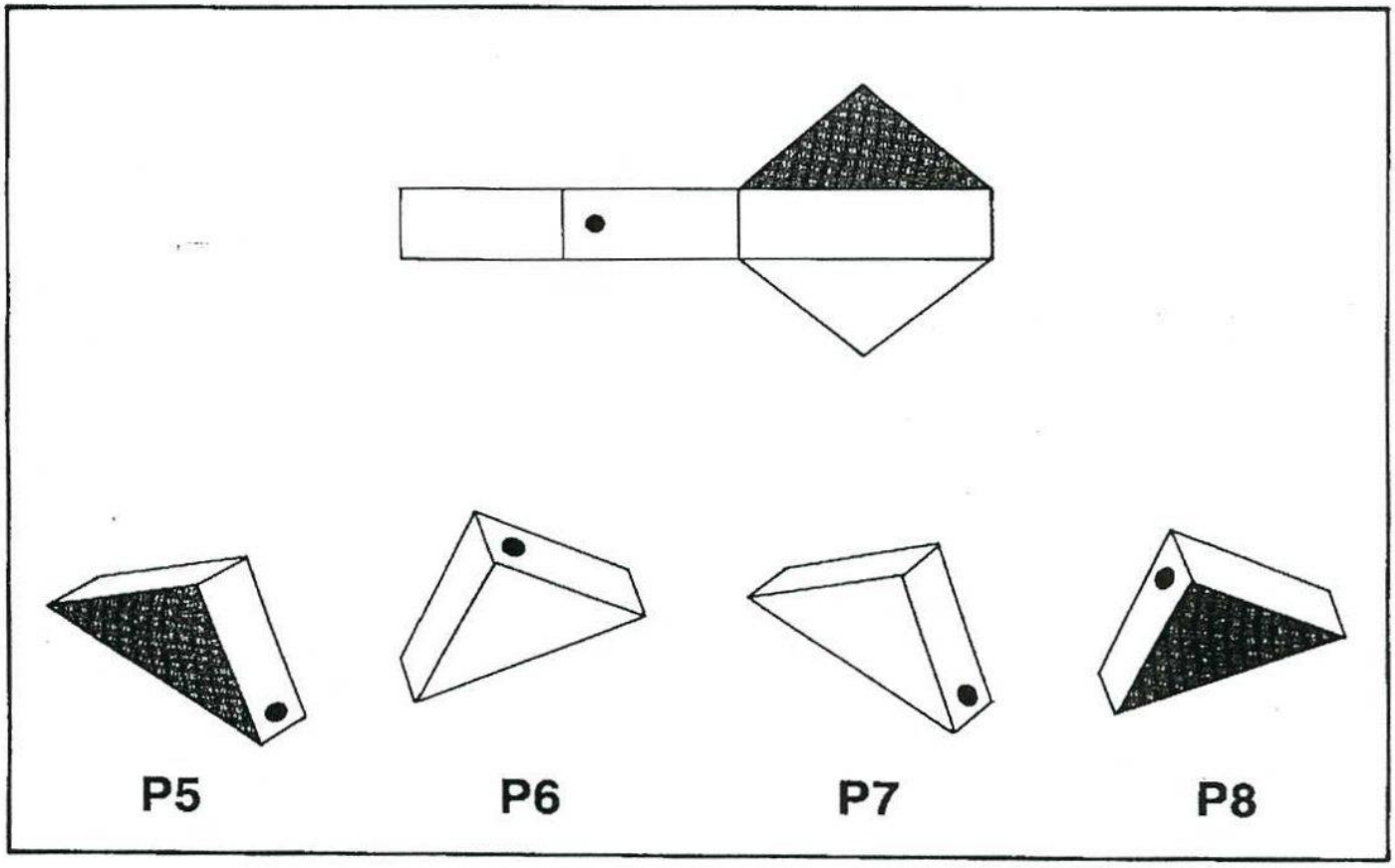
The answer to No.2 is it might be made from the pattern, since the Dot could be on the hidden side under the cube, so the answer is YES.

The answer to No.3 might be made from the pattern, if the Black face is hidden at the top of the cube, so the answer is YES.

The answer to No.4 each of the three hidden sides has its opposite side in view so either the Dot or the Black face would have to be visible. Therefore, it is definitely not made from the pattern, so the answer is NO.

Now try the following examples on the day there will be 10 examples to do.

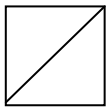


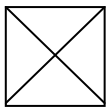


SEE ANSWER SHEET ON NEXT PAGE

Spatial Awareness Answer Sheet

Use only a sharp pencil or ball-point pen

Mark your answer only like this 

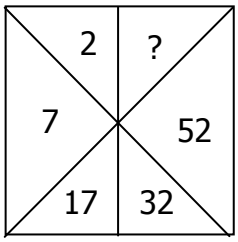
If you make a mistake cross it out like this 

P1		P2		P3		P4	
Y	N	Y	N	Y	N	Y	N

P5		P6		P7		P8	
Y	N	Y	N	Y	N	Y	N

Section 5 - Logic of reasoning (15 Minutes)

1. Insert the missing number 23 27 32 38 (?)	**Answer**	**Mark**

2. Insert the missing number 	**Answer**	**Mark**

3. Insert the missing number **7 4 2** **2 5 6** **4 4 ?**	**Answer**	**Mark**

4. Insert the missing numbers	**Answer**	**Mark**

4	**7**	**12**
8 10	**14 16**	

22 24 | **24 26** | **28 30** | **32 34** | **36 38**

5. Insert the missing number **235 (125) 360** **345 (?) 546**	**Answer**	**Mark**

There will be <u>Ten</u> questions like this