Anglo-Chinese School (Junior)



PRIMARY 6 MATHEMATICS

| Friday | 25 Fe | bruary 2022 | | | 1 h 30 min |
|--------|-------|-------------|---|---------------------|------------|
| Name:(|) | Class: 6.(|) | Parent's Signature: | |

INSTRUCTIONS TO PUPILS

- 1 Do not turn over the pages until you are told to do so.
- 2 Follow all instructions carefully.
- 3 Answer ALL questions.
- 4 You are <u>not</u> allowed to use a calculator for this paper.

| Section | Possible Marks | Marks Obtained |
|---------|----------------|-------------------|
| Α | 10 | |
| В | 15 | |
| С | 25 | |
| Total | 50 | |

This question paper consists of 17 printed pages (inclusive of cover page).

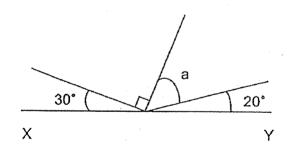
Optical Answer Sheet

- 1 1 1 1 1 1 1
- 2 1 2 3 4
- ³ ① ② ③ ④
- 4 1 1 1 1 1
- 5 1 3 3 4
- 6 1 2 3 4
- 7 1 1 1 1 1 1

Section A

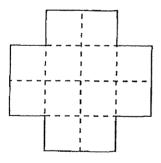
Questions 1 to 4 carry 1 mark each. Questions 5 to 7 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet (OAS). (10 marks)

1. In the figure, XY is a straight line. Find ∠a.



- 1) 30°
- 2) 40°
- 3) 50°
- 4) 60°

- Steffi played 21 tennis matches in a week. Martina played 7 tennis matches in the same week. Find the ratio of the number of matches Martina played to the number of matches Steffi played.
 - 1) 1:3
 - 2) 3:1
 - 3) 1:4
 - 4) 4:1
- 3. Find the value of $18 \pm 50 \pm 5 \times 2$.
 - 1) 13
 - 2) 26
 - 3) 38
 - 4) 46
- 4. The figure is made up of 12 squares. The length of each of the square is 6 cm. What is the perimeter of the figure?



- 1) 24 cm
- 2) 48 cm
- 3) 72 cm
- 4) 96 cm

- 5. Andy was given $\frac{1}{3}$ of a cake and John was given $\frac{1}{4}$ of what was left. The remainder was then shared equally among 5 girls. What fraction of the original cake did each girl get?
 - 1) $\frac{1}{10}$
 - 2) $\frac{1}{20}$
 - 3) $\frac{1}{30}$
 - 4) $\frac{1}{40}$
- 6. Alyssa saves 3 times as much money as Brenda. Clara saves half of what Alyssa saves. Express Clara's savings as a fraction of all the 3 girls' total savings.
 - 1) $\frac{3}{16}$
 - 2) $\frac{3}{11}$
 - 3) $\frac{3}{8}$
 - 4) $\frac{3}{5}$

| 7. | Siti had some beads. 40% of them were blue and the rest were yellow. She |
|----|--|
| | used all the blue beads and $\frac{1}{5}$ of the yellow beads to make a necklace. What |
| | percentage of her beads were used to make the necklace? |

- 1) 12%
- 2) 48%
- 3) 52%
- 4) 68%

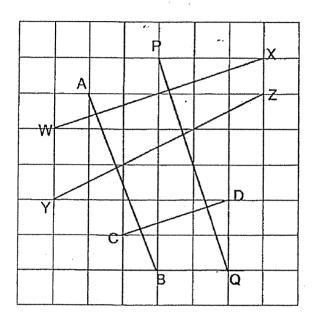
| Sub-Total: | |
|------------|--|

Section B1

Questions 8 to 12 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(5 marks)

8. In the figure below, two lines are parallel. Which are the two lines?



Ans : _____ and ____

9. Find the value of $\frac{5}{6} \div \frac{3}{8}$. Express your answer as a mixed number in its simplest form.

Ans:

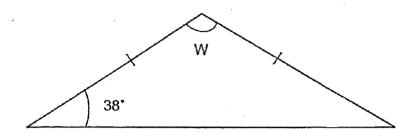
6

| 10. | When a number is divided by 8, it gives a quotient of 218 and a remainder of 5. What is the number? |
|-----|--|
| 11. | Ans : Find the value of 21.52 + 40. |
| | Ans : |
| 12. | A cuboid has a square base of side 8 cm. Its height measures 9 cm. What is the volume of the cuboid? |
| | |
| | Ans:cm³ |
| | 7 Sub-Total : |

Section B2

Questions 13 to 17 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

13. The figure shows an isosceles triangle. Find ∠ W.



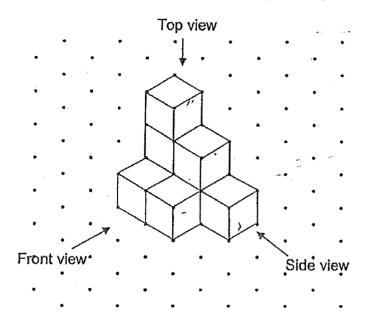
Ans:_____*

14. Bala has $\frac{3}{4}\ell$ of lemon juice. How many days will he take to finish the lemon juice if he drinks $\frac{1}{8}\ell$ of it every day?

Ans:_____

| 15. | Ms Tan uses vinegar and oil in the ration | o of 2 : 5 to make a sala | d dressing. |
|-----|--|--|--|
| | She uses 75 ml of oil. How much vine | gar does she use? | |
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| | | Ans : | ml |
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| 16. | During a sale, a bag cost \$168 after 20% the bag before discount? | discount. What was t | he price of |
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| | | Ans : \$ | |
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| | 9 | Sub-To | tal : |

17. Joshua stacked 8 cubes and glued them together to form the solid below.



Draw the side view of the solid on the square grid below.

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Section C

For questions 18 to 24, show your working clearly question and write your answers in the spaces provided. The number of marks available is shown in brackets [] at the end of each question or part-question. (25 marks)

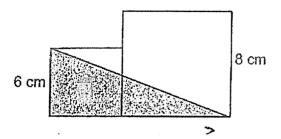
18. Mrs Chong had 10 ℓ of juice. She poured the juice into bottles without spilling. The capacity of each bottle was $\frac{3}{8}\ell$,

- (a) What was the greatest number of bottles Mrs Chong could fill completely with juice?
- (b) How much juice was left? Give your answer in litres.

| Ans: (a) | [1] |
|----------|-------------|
| (b) | [2] |
| | |
| | Sub-Total : |

Mrs Tan had a container of sugar. The mass of the container and the sugar 19. was 3.75 kg. She used $\frac{2}{5}$ of the sugar to bake some cakes. The mass of the container and the remaining sugar was 2.51 kg. What was the mass of the container? Give your answer in kilograms.

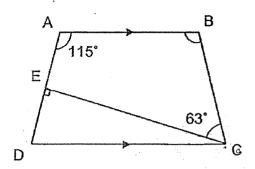
20. The figure is made up of two squares of different sizes. Find the area of the unshaded part in the figure.



Ans:____[3]

S

21. ABCD is a trapezium. AB is parallel to CD. Triangle CDE is a right-angled triangle. ∠DAB = 115° and ∠BCE = 63°. Find ∠ABC.



Ans: (a) _____[Z]

(b) _____[2]

| 22. | Jonathan bought a shirt and a wailet $\frac{2}{5}$ of the remaining money on the wall money he had at first. How much did | let. He was left with $\frac{1}{4}$ the amount of |
|-----|---|---|
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| | | Ans :[4] |

- 23. Devon and Oliver had a total of 275 saga seeds. Devon gave away 50 saga seeds and Oliver gave away 25% of his saga seeds. After that, the ratio of the number of Devon's saga seeds to the number of Oliver's saga seeds was 1:6.
 - (a) What fraction of Oliver's saga seeds did he give away? Give your answer in the simplest form.
 - (b) How many saga seeds did Devon and Oliver have altogether in the end?

| | Ans : (a) | | _[1] |
|----|-----------|--|------------------|
| | (b) | MANAGER AND SELECTION AND SERVICE AND SERV | ₋ [3] |
| 16 | S | ub-Total : | |

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| | | Ans | : | | [4] |
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SUBJECT:

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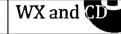
SECTION A



| 0.1 | Q2 | 63 | Q4 | Q5 | Q6 | ∘ Q7 |
|-----|----|----|----|----|----|------|
| 2 | 1 | 3 | 4 | 1 | 2 | 3 |

SECTION B1







$$\frac{5}{6} \div \frac{3}{8} = \frac{5}{6} \times \frac{8}{3}$$



$$2\frac{2}{9}$$



1749



 $21.52 \div 4 \div 10$

$$= 5.38 \div 10$$

= 0.538



 $8 \times 8 \times 9 = 64 \times 9$

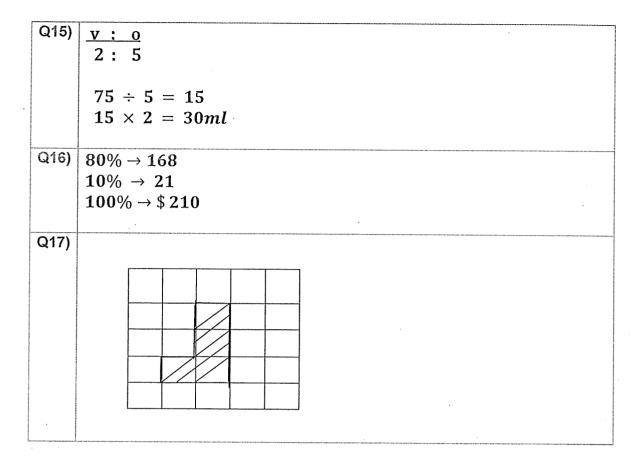


SECTION B2

Q13)
$$< w = 180^{\circ} - 38^{\circ} - 38^{\circ}$$

= 104°

Q14)
$$\frac{3}{4} \div \frac{1}{8} = \frac{3}{4} \times \frac{8}{1}$$



SECTION C

| Q18) | $a)10 \div \frac{3}{8} = \frac{10}{1} \times \frac{8}{3}$ $\frac{26}{1} \times \frac{3}{8} = \frac{39}{4}$ |
|------|--|
| | $=\frac{80}{3} \qquad \qquad =9\frac{3}{4}$ |
| | $= 26\frac{2}{3}$ Ans: 26 |
| | Alis: 20 |
| | $b)\frac{3}{8} \times \frac{2}{3} = \frac{1}{4}\ell$ 10 - $9\frac{3}{4} = \frac{1}{4}\ell$ |
| | 3.75 - 2.51 = 1.24 |
| | $1.24 \div 2 = 0.62$ |
| | $0.62 \times 5 = 3.10$ |
| | 3.75 - 3.10 = 0.65 kg |
| Q20) | Area of $A = 6 \times 14 \times \frac{1}{2} = 42$ |
| | $Area of 6 \times 6 = 36$ |
| | $Area of 8 \times 8 = 64$ |

| | $Area \ of \ fig = 64 + 36 = 100$ |
|------|---|
| | $Area of unshaded = 100 - 42 = 58 cm^2$ |
| | |
| Q21) | $< EDC = 180^{\circ} - 115^{\circ} = 65^{\circ}$ |
| | $< ECD = 180^{\circ} - 90^{\circ} - 65^{\circ} = 25^{\circ}$ |
| | $ < ABC = 360^{\circ} - (115^{\circ} + 65^{\circ} + 63^{\circ} + 25^{\circ}) = 92^{\circ} $ |
| | |
| Q22) | 7u = 84 |
| | 1u = 12 |
| | $12u = 12 \times 12$ |
| | = \$144 |
| | |
| Q23) | $a)\frac{25}{100} = \frac{1}{4}$ |
| | 100 4 |
| | b) $8u + 1u + 50 = 275$ |
| | 9u + 50 = 275 |
| | 275 - 50 = 9u |
| | 275 - 30 = 70 $225 = 90$ |
| | $1\mathbf{u} = 25$ |
| | $7u = 25 \times 7 = 175 \text{ saga seeds}$ |
| | 74 — 20 x 7 — 170 saga seeds |
| Q24) | |
| | $5g \longrightarrow 8$ $4h \longrightarrow 5$ |
| | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ |
| | $\begin{array}{cccccccccccccccccccccccccccccccccccc$ |
| | |
| | 32 - 25 = 7 |
| | $84 \div 7 = 12sets$ |
| | $12 \times 20 = 240 $ blue pens |
| | - |