ANSWER KEY

YEAR : 2021
LEVEL : PRIMARY 6
SCHOOL : AI TONG
SUBJECT : MATHEMATICS
TERM : MID-YEAR EXAM

PAPER 1
(BOOKLET A)

Q1	2	Q2	3	Q3	2	Q4	4	Q5	4
Q6	1	Q7	4	Q8	4	Q9	1	Q10	2
Q11	4	Q12	1	Q13	2	Q14	3	Q15	3

(BOOKLET B)

Q16	1012020
Q17	104°
Q18	$2 \div 7 = 0.29$
Q19	$100\% \div 2 = 50\%$ $50\% + 20\% = 70\%$
Q20	$\frac{6}{9} = \frac{2}{3}$
Q21	$\frac{30-20}{4} = \frac{10}{4}$ $=2\frac{2}{4}$ $= 2\frac{1}{2}$
Q22	$<$ ABC → 180° - 69° = 111° $<$ DEF → 180° - 29° - 111° = 40°
Q23	Diameter → 14 x 2 = 28 $\frac{3}{4}$ Cir → $\frac{3}{4}$ x π x 0 $= \frac{3}{4} \times \frac{22}{7} \times \frac{28}{1}$ =66 Perimeter → 66 + 14 + 14 = 94cm
Q24	3u →27 1u →27 ÷ 3 = 9 6u → 9 x 6 = 54

Q25

$< XAB \rightarrow 180° - 104° = 76°$

$< BAX \rightarrow 76° \div 2 = 38°$

$< WAB \rightarrow 104° + 38° = 142°$

Q26

30 x 20 x 35 = 21000

21000 ÷ 7 = 3000

3000 x 3 = 9000

9000cm3 = 9000ml = 9L

Q27

4 x 4 = 16

$\frac{1}{16}$

A : EFGH

1 : 16

Q28

i) S=120km/h

D=50km

T=D÷5

$=\frac{50}{1} \div \frac{120}{1}$

$=\frac{50}{1} \times \frac{1}{120}$

$=\frac{5}{12}h$

ii) S=100km/h

D=50km

T=D÷5

$=\frac{50}{1} \div \frac{100}{1}$

$=\frac{50}{1} \times \frac{1}{100}$

$=\frac{1}{2}h$

iii) 60 ÷ 12 =5

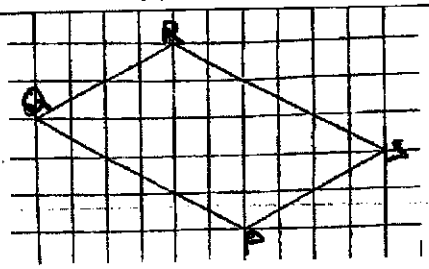
5 x 5 = 25

$\frac{5}{12}h$ = 25min

$\frac{1}{2}h$ = 30min

30min – 25min = 5min

Q29



Q30	Statement	True	False	Not possible to tell
	All the women are lighter than the men.			√
	The average mass of all the adults is more than 75kg.		√	

PAPER 2

Q1	100% + 10% = 110% 110% → 3520 1% → 3520 ÷ 110 = 32 100% → 32 x 100 = 3200
Q2	<u>Small semicircle x2</u> D → 5 Cir → π x D = π x 5 = 5 π <u>Big semicircle</u> D → 5 + 5 = 10 $\frac{1}{2}$ cir → $\frac{1}{2}$ x π x D =$\frac{1}{2}$ x π x $\frac{1}{10}$ =5 π Perimeter → 5 π + 5 π = 10 π cm
Q3	$210 ÷ 30 = $7 $7 x 5 = $35 12u = 5u + 35 12u – 5u = 7u 7u → $35 1u → $35 ÷ 7 = $5 30u → $5 x 30 = $150
Q4	21 ÷ 3 = 7 7 x P = 7p 7p + 4 = (7p + 4)
Q5	<u>Quadrant</u> R → 20cm

	$\frac{1}{4}$ A → $\frac{1}{4}$ x π x R x R = $\frac{1}{4}$ x 3.14 x 20 x 20 =314 <u>Square</u> 20 x 20 = 400 Arrow → 400 - 314 =86 Half arrow → 86 ÷ 2 = 43cm2
Q6	<u>Jimmy</u> 10 days → 1 house 1 day → $\frac{1}{10}$ house = $\frac{2}{20}$ house <u>Tom</u> 20 days → mouse 1 day → $\frac{1}{20}$ house <u>Together</u> 1 day → $\frac{2}{20}$ + $\frac{1}{20}$ = $\frac{2}{20}$ 4 days → $\frac{2}{20}$ x $\frac{4}{1}$ =$\frac{2}{5}$ =$\frac{4}{10}$ =$\frac{8}{20}$ 20 – 8 = 12 12 ÷ 3 = 4 4 + 4 = 8 days
Q7	36 – 3 = 33 33 x n = 33n 33n ÷ 3 = 11n 11n x 36 = 396n
Q8	22 – 16 = 6 6 + 16 + 6 = 28 3 – 1 = 2 2u → 28 1u → 28 ÷ 2 = 14

	4u → 14 x 4 = 56 buttons
Q9	a) S=80km/h T=$3\frac{1}{2}$ D=S x T =80 x $3\frac{1}{2}$ =280km b) 7.45pm
Q10	a) $\frac{8}{20}$ x 100 = 40% b) $20u \rightarrow 120$ $1u \rightarrow 120 \div 2 = 6$ $6u \rightarrow 6 \times 6 = 36$ children
Q11	a) 9.06kg = 9060g 9060g ÷3 = 3020g b) $\frac{1}{6}$ A → 604g 3020g ÷ 2 = 1510g $\frac{1}{3}$ $B \rightarrow$ 1510g $\frac{3}{3}$ $B \rightarrow$ 1510g x 3 = 4530g 4530g – 604g = 3926g
Q12	25 – 8 = 17 5 x 4 = 20 20u = 17u + 17 + 7 20u – 17u = 3u 3u → 17 + 7 = 24 1u → 24 ÷3 = 8 17u → 8 x 17 = 136 136 + 17 = 153
Q13	a) 36 ÷ 4 = 9 9 x 3 = 27 36 + 9 = 45 45 + 27 = 72 72 x 2 = 144cm b) $\frac{1}{2}$ x 27 x 27 = 364.5cm2
Q14	< RUP → 180° - 60° = 120° < QPU → 180° - 120° = 60° < UST → (180° - 90°) ÷2 = 45° < UTV → (180° - 90° - 60°) ÷2 =30° ÷2 = 15°

	< RTS → 45° - 15° = 30° a) 120° b) 30°
Q15	<u>Big semicircle</u> R → 33 ÷2 = 16.5 $\frac{1}{2}$ A → $\frac{1}{2}$ x π x R x R =$\frac{1}{2}$ x π x 16.5 x 16.5 = 136.125 π <u>A</u> 136.125 π - 32 π = 104.125 π <u>Small semicircle</u> R → 18 ÷2 = 9 $\frac{1}{2}$ A → $\frac{1}{2}$ x π x R x R =$\frac{1}{2}$ x π x 9 x 9 = 40.5 π <u>C</u> 40.5 π - 32 π = 8.5 π Shaded area → 8.5 π + 104.125 π ≈353.8218 ≈ 353.8cm2
Q16	a) $8400 - $3480 = $4920 $4920 ÷2 = $2460 $2460 + $3480 = $5940 b) $5940 ÷ 4 = $1485 $2460 - $1485 = $975 $975 ÷ $325 = 3 laptops
Q17	a) R : Y : B 8 : 12 : 3 b) 8 – 5 = 3 3u → 9 1u → 9 ÷ 3 = 3 18 – 3 = 15 15u → 3 x 15 = 45 blue beads

END