Mathematics

Form 1

TERM 3 OPENER EXAMS 2023

Marking scheme

5	(i) i2 | 28 | 16 | 40 2 | 14 | 8 | 20 2 | 7 | 4 | 10 2 | 7 | 2 | 5 5 | 7 | 1 | 5 7 | 7 | 1 | 1 1 | 1 | 1 | 1 $7 \times 5 \times 16 = 560$ (ii) $\frac{560}{16} = 35$	M1 A1 B1	
		3	
6	$4680 \times 125 = 585\,000$ $585\,000 - 51\,790 = 533\,210$ $533\,210 \div 100 = 5\,332.10$	M1 M1 A1	
		3	

7	$3x + 3y = 8$ $5x - y = 3$ $2x + 3(5x - 3) = 8$ $17x = 17$ $x = 1, y = 2$	M1 A1 B1	
		3	
8	$\sqrt{12.5 \times 10^{-4}} + 1.34 \times 10^{2}$ $3.5355 \times \frac{1}{100} + 1.796 \times 10\,000$ 17960.04	M1 M1 A1	
		3	
9	$\frac{x(a+b)-y(a+b)}{m(a+b)-n(a+b)}$ $\frac{(x-y)(a+b)}{(m-n)(a+b)}$ $\frac{x-y}{m-n}$	M1 M1 A1	
		3	

10	(i) $\frac{360}{24} = 15$ (ii) $(n-2)180^0$ $(15-2)180^0 = 2340^0$	M1A1 M1 A1	
		3	
11	$10\,500 = 105\%$ $? \quad = 100\%$ $10\,500 \times \frac{100}{105}$ $10\,000$ $10\,000 = 100$ $? = 98$ $10\,000 \times \frac{98}{100}$ $9\,800$	M1 M1 A1	
		3	
12.	$\frac{22}{7} \times 141 \times 4 \times 10 = 6\,160$ $d = \frac{18\,480}{6\,160} = 3g/cm^3$ $3000kg/m^3$	M1 M1A1 A1	
		4	

13	$2\frac{1}{4}+\frac{3}{5}\div 2$ $\frac{9}{4}+\frac{3}{10}=\frac{51}{20}$ $\frac{51}{20}\times\frac{10}{17}=\frac{3}{2}$ *or* $1\frac{1}{2}$	M1 M1 A1	
14	a. $\frac{40000}{1600000}\times 100\%=2.5\%$ b. $3\,600\,000=100\%$ $?=98\%$ $\frac{98}{100}\times 3\,600\,000$ $3\,528\,000\times\frac{2.5}{100}=88\,200$	B2 M1 A2	
15.	$\frac{22}{7}\times\frac{a}{360}\times 63\times 63=4158$ $a=(4158\times 7\times 360)\div 22$ $a=120^0$	M1 M1 A2	