

MAJLIS PENGETUA SEKOLAH MALAYSIA
NEGERI SEMBILAN

PROGRAM PENINGKATAN AKADEMIK TINGKATAN 5
SEKOLAH-SEKOLAH MENENGAH NEGERI SEMBILAN 2017

PERATURAN PERMARKAHAN ADDITIONAL MATHEMATICS PAPER 1

NO	MARKING SCHEME	MARKS	FULL MARKS
1(a)	840	2	3
	$\sqrt{56} = \sqrt{\frac{\sum(x-\bar{x})^2}{15}}$ atau $56 = \frac{\sum(x-\bar{x})^2}{15}$	B1	
(b)	6.222	1	
2(a)	n	1	4
(b)	96	3	
	$1 \times {}^4P_2 \times 2 + 2 \times {}^4P_2 \times 3$ atau	B2	
	$2 \times 4 \times 3 \times 3 + 1 \times 4 \times 3 \times 2$		
	$1 \times {}^4P_2 \times 2$ or $2 \times {}^4P_2 \times 3$	B1	
	$2 \times 4 \times 3 \times 3$ atau $1 \times 4 \times 3 \times 2$		
3(a)	$\frac{2}{15}$	2	4
	$\frac{2}{5} \times \frac{1}{3}$	B1	
(b)	$\frac{7}{15}$	2	
	$\frac{2}{5} \times \frac{2}{3} + \frac{3}{5} \times \frac{1}{3}$	B1	
4(a)	$-\frac{k}{5}$	1	3
(b)	-1	2	
	$k - \left[\frac{kx^2}{2} \right]_1^3 = 3$	B1	
5(a)	$\frac{3x+2}{4x-1}$	1	3
(b)	-11	2	
	$\frac{dy}{dx} = \frac{3(4x-1) - 4(3x+2)}{(4x-1)^2}$ atau $p = 3(4x-1) - 4(3x+2)$	B1	
6	-13.44π atau -42.23	3	3
	$\frac{dA}{dy} = 8\pi(14)x - 0.12$	B2	
	$\delta y = -0.12$ or $\frac{dA}{dy} = 8\pi y$	B1	

NO	MARKING SCHEME	MARKS	FULL MARKS
7	43.81 cm^2 $\frac{1}{2}(10)^2 (0.8761) \text{ atau } \frac{1}{2}(10)^2 \left(50.19 \times \frac{\pi}{180}\right)$ $\tan \angle AOT = \frac{12}{10} \text{ atau } 50.19^\circ$ $AT = 12 \text{ atau } \frac{1}{2} \times 10 \times AT = 60$	4 B3 B2 B1	4
8	$h = 5 \text{ and } m = 3$ $h = 5 \text{ or } m = 3$ $\frac{hm - 3}{m + 1} = 3 \text{ or } \frac{-m + 11}{m + 1} = 2$	3 B2 B1	3
9	$D(-3, 9)$ $x = -3 \text{ or } x = \frac{317}{11}$ $11x - 142 = 175 \text{ or } 11x - 142 = -175$ $\frac{1}{2} 1 + 90 + 45 - 2x - (-20) - 5 - 9x - 9 = 87.5$	4 B3 B2 B1	4
10(a) (b)	240° $\frac{p}{q}$ $\frac{\sin x}{\cos x} \div \frac{\sin y}{\cos y} \text{ or } \frac{\sin x \cos y}{\cos x \sin y}$	1 2 B1	3
11(a) (b)	z Tidak wujud Hubungan adalah banyak kepada satu.	1 1 1	3
12(a) (b)	$2x - 3$ $g^2 - 4 = 4x^2 - 12x + 5$ 21 $g(12)$	2 B1 2 B1	4
13	$n = 2$ $y = 4$ $y^2 - 1 = \frac{15}{4}y \text{ atau setara}$ $(2^n)^2 \text{ or } 2^n (2^{-2})$	4 B3 B2 B1	4

NO	MARKING SCHEME	MARKS	FULL MARKS
21	$k = 6$ $\begin{pmatrix} 4 + 2k \\ -9 + k + 3 \end{pmatrix}$ atau $-9 + k + 3 = 0$	2 B1	2
22	$\frac{3}{5}$ $\frac{10}{1-r} = 25$	2 B1	2
23	-2 $T_2 = 3$ atau $d = 3 - 5$ atau $5 + d = 3$ $T_1 = 5$ atau $S_2 = 8$	3 B2 B1	3
24	Taman Kemboja dan RM 561, 394 $420\,000 (1.015)^{19}$ atau $400\,000 (1.018)^{19}$ $r = 1.015$ atau $r = 1.018$ (Hanya Taman Kemboja tanpa sebarang pengiraan)	3 B2 B1 0	3
25	54.348 $\frac{k-58}{2.2} = -1.66$ $P\left(Z < \frac{k-58}{2.2}\right) = 0.0485$ $\mu = 58$	4 B3 B2 B1	4