

SKEMA PEMARKAHAN MATEMATIK TAMBAHAN KERTAS 1
PEPERIKSAAN PERCUBAAN TAHUN 2015

1.	Solution and Mark Scheme	Sub Marks	Total Marks
1(a)	$f(x) = x - 1$	1	2
(b)	$m = 4$	1	
2(a)	$h^{-1}(x) = \frac{3 - 2x}{x}$ $y = \frac{3}{2+x}$ $2y + xy = 3$	2	3
(b)	$h^{-1}(2) = -\frac{1}{2}$	1	
3(a)	33	1	3
(b)	$x = 0, x = -2$ B1 : $2x^2 + 5x = x$	2	
4	$4 < x < 5$ B1 : $(x - 4)(x - 5) = 0$	2	2
5	Dimensi = 200 B3: $-2[x^2 - 20x + (-10)^2 - (-10)^2]$ B2 : $L = x(40 - 2x)$ B1 : $y = 40 - 2x$	4	4
6	$n = 1$ B2 : $5^{n-2} = 5^{-3}$ B1 : $5^{3n} \div 5^{2(n+1)} = 5^{-3}$	3	3
7	$P = \frac{64}{\sqrt{Q}}$ B2 : $\log_2 P^2 Q = \log_2 4096$ B1 : $\log_2 P + \frac{\log_2 Q}{\log_2 2^2} = \log_2 2^6$	3	3

SKEMA PEMARKAHAN MATEMATIK TAMBAHAN KERTAS 1
PEPERIKSAAN PERCUBAAN TAHUN 2015

8 (a)	$a = 5$ $B1 : a + ar^3 = 150$	2 2	4
(b)	865 $B1 : \frac{45(3^3 - 1)}{3 - 1}$		
9	10 orang B3 $n = 11$ B2 $\log_{10} 38906.14 = \log_{10} 15000 + (n - 1)\log_{10} 1.1$ B1 $a = 15\,000$ atau $r = 1.1$ atau $T_n = 38906.14$	4	4
10	$m = 15, m = -15$ (both) B2 : -15 atau 15 B1 : $\frac{1}{2} m - 4 - 15 - 12 + 5m + 1 = 60$	3	3
11	$P = 2$ dan $q = -1$ (both) B2 : $p = 2$ atau $q = -1$ B1 : $y - 2x = px^2 + 5q$	3	3
12	$\theta = \frac{\pi}{2} - 1$ B2 : $\frac{\pi r}{2r} = 1 + Q$ B1 : $\pi r - r\theta = 2r + r\theta$	3	3
13	94.562 B2 : $189 - 94.438$ B1 : 189 atau 94.438	3	3
14	$x = 63.43^\circ, 123.69^\circ, 243.43^\circ, 303.69^\circ$ B2 : $63.43^\circ, 243.43^\circ$ atau $123.69^\circ, 303.69^\circ$ B1 : $(2 \tan x - 3)(\tan x - 2) = 0$	3	3

SKEMA PEMARKAHAN MATEMATIK TAMBAHAN KERTAS 1
PEPERIKSAAN PERCUBAAN TAHUN 2015

15	$\frac{t^2}{1-t^2}$ <p>B2 : $\tan^2\theta = \left(\frac{t}{\sqrt{1-t^2}}\right)^2$</p> <p>B1 : $\tan\theta = \frac{t}{\sqrt{1-t^2}}$</p>	3	3
16 (a)	$5i + 2j + kj$	1	3
(b)	$k = -14, k = 10$ (both) B1 : $\sqrt{5^2 + (2+k)^2} = 13$	2	
17(a)	$i + 2j$ B1 : $\overrightarrow{PO} = \overrightarrow{PO} + \overrightarrow{OQ}$	2	4
(b)	$\frac{i + 2j}{\sqrt{5}}$ B1 : $\sqrt{5}$	2	
18	Dimensi kotak untuk isipadu maksimum 68cm x 68cm x 68cm B3 $408p - 6p^2 = 0$ B2 <i>Isipadu, $I = p^2 \times l$</i> B1 $2p + t = 204$	4	4
19	$k = -\frac{1}{21}, n = -7$ (both) B2 : $k = -\frac{1}{21}$ atau $n = -7$ B1 : $\frac{(3x+4)^{-7}}{-21} + c$	3	3
20	$\frac{2}{5}$ B2 : <i>luas A = -4 dan luas B = -10</i> B1 : $\int_1^2 y dx = \frac{-4}{x}$ atau $\int_2^3 y dx = \frac{-4}{x}$	3	3

SKEMA PEMARKAHAN MATEMATIK TAMBAHAN KERTAS 1
PEPERIKSAAN PERCUBAAN TAHUN 2015

21(a)	$m = 5$ $B1 : \bar{x} = \frac{2m - 3 + 8 + m + 1}{3} = 7$	2	3
(b)	15	1	
22(a)	$m = 44$ $B1 : \frac{\sum x}{15} = 9$	2	4
(b)	1529 $B1 : \text{apabila } n = 14, \sum x^2 = 3465 - 44^2$	2	
23	$\frac{9}{25}$ $B2 : \frac{36\pi}{100\pi} = \frac{36}{100}$ $B1 : \text{luas berlorek kecil} = 36\pi \text{ atau luas bulatan} = 100\pi$	3	3
24(a)	$\frac{1}{8}$ $B1 : \frac{3}{8} = \frac{1}{4} + P(M)$	2	4
(b)	$\frac{5}{8}$ $B1 : 1 - \frac{3}{8}$	2	
25(a)	0.1816	1	3
(b)	$X = 40.45$ $B1 : \frac{X - 36}{5} = 0.909$	2	

-----KERTAS JAWAPAN TAMAT -----