

SKEMA JAWAPAN PPC TINGKATAN 5 TAHUN 2022

KERTAS 1

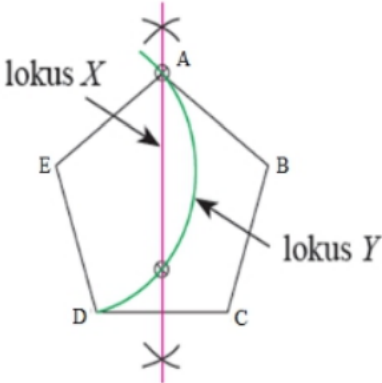
1	D	11	A	21	A	31	A
2	B	12	B	22	A	32	C
3	D	13	B	23	B	33	D
4	D	14	B	24	A	34	C
5	A	15	B	25	C	35	D
6	C	16	A	26	B	36	C
7	A	17	C	27	D	37	C
8	D	18	D	28	A	38	D
9	A	19	A	29	C	39	C
10	B	20	C	30	C	40	B

Analisis Jawaban :

Qs	1 – 10		11 – 20		21 – 30		31 – 40		JUMLAH
A	3	+	3	+	4	+	1	=	11
B	2	+	4	+	2	+	1	=	9
C	1	+	2	+	3	+	5	=	11
D	4	+	1	+	1	+	3	=	9
JUMLAH KESELURUHAN :									40

KERTAS 2

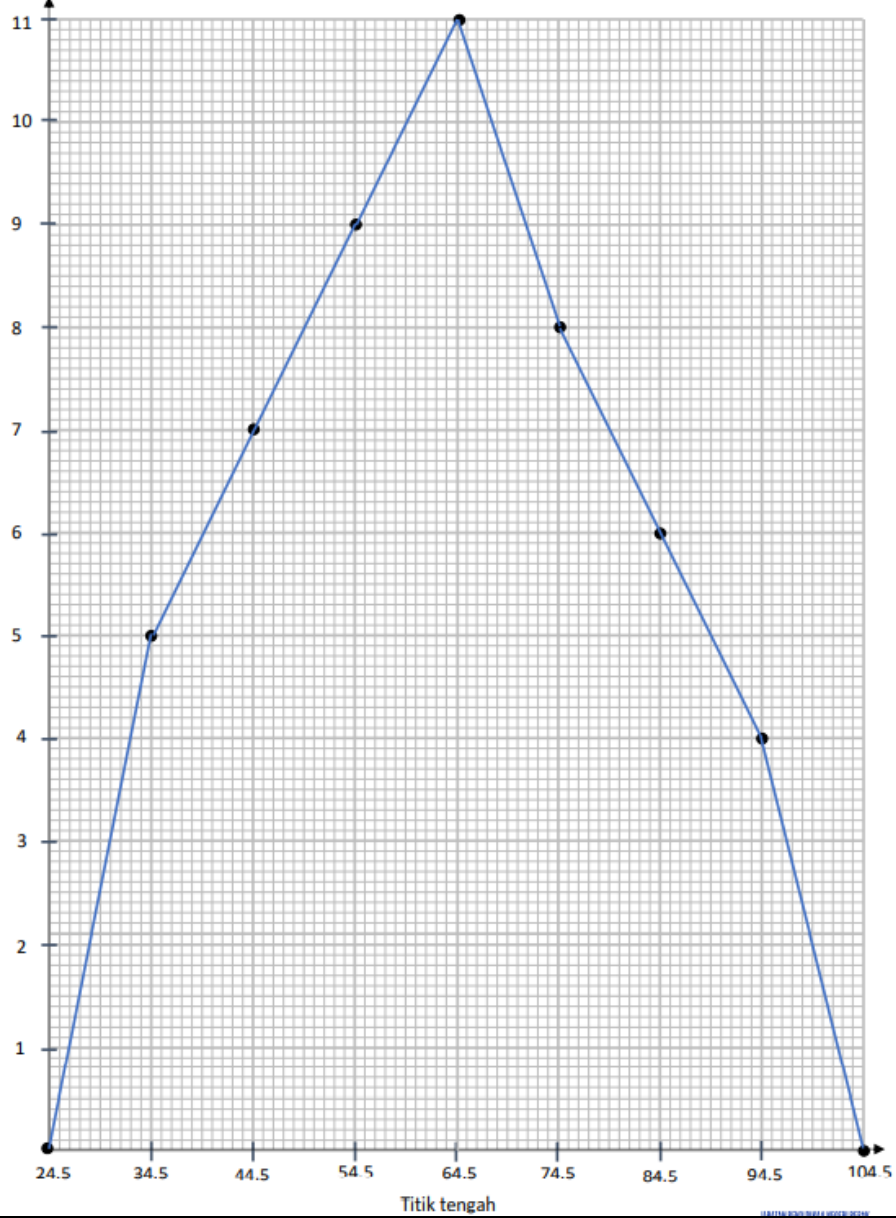
1.	$\begin{aligned} 2y + 3y &= 27 \\ 3x + 4y &= 38 \end{aligned}$ $\begin{pmatrix} 2 & 3 \\ 3 & 4 \end{pmatrix} \begin{pmatrix} x \\ y \end{pmatrix} = \begin{pmatrix} 27 \\ 38 \end{pmatrix}$ $\begin{pmatrix} x \\ y \end{pmatrix} = \frac{1}{2(4) - 3(3)} \begin{pmatrix} 4 & -3 \\ -3 & 2 \end{pmatrix} \begin{pmatrix} 27 \\ 28 \end{pmatrix}$ Harga 1kg rambutan = RM6 Harga 1kg manggis = RM5	1m 1m 1m 1m
2.	Kolej Teratai → kantin → kolej mawar → dewan kuliah $100\text{m} + 250\text{m} + 280\text{m} = 630\text{m}$ Jarak terjauh = $370\text{m} + 250\text{m} + 150\text{m} + 430\text{m} = 1200\text{ m}$ Jarak terdekat = $100 + 250 + 280 = 630\text{m}$ Beza jarak = $1200 - 630$ $= 570\text{ m}$	1m 1m 1m 1m
3.	Kos perubatan selepas deduktibel: $= \text{RM}35\,000 - \text{RM}1\,000 = \text{RM}34\,000.$ Kos ditanggung oleh syarikat insurans: $= \frac{80}{100} \times \text{RM}34\,000$ $= \text{RM}27\,200$ Kos ditanggung oleh Sofea sendiri: $= \frac{20}{100} \times \text{RM}34\,000 + \text{RM}1\,000$ $= \text{RM}7\,800$	1m 1m 1m 1m

4.	a) Jarak = laju x masa $= 0.6 \times 30$ $= 18 \text{ km}$ b) Masa = $\frac{22}{0.55} \div 60$ $= 0.67 \text{ jam}$	1m 1m 1m 1m
5.	 Lukis Lokus X dengan betul <i>Draw Locus X correctly</i> Lukis Lokus Y dengan betul <i>Draw Locus Y correctly</i> Tanda semua persilangan dengan betul <i>Mark intersection points correctly</i> Catatan : garisan putus-putus adalah tidak diterima.	1m 1m 1m
6.	a) $25000(1 + \frac{0.05}{3})^{3(7)}$ RM35374.50 b) RM35374.50 – RM25000 RM10374.50	1m 1m 1m 1m
7.	Azim : 20 Ben : 40 atau Chong : 38 20+40+38 98	1m 1m 1m 1m
8.	a) (i) <i>sebilangan</i> (ii) Semua b) (i) benar (ii) benar	1m 1m 1m 1m
9.	a) 3 s b) $\frac{35-15}{(5-0)}$ 4ms^{-1} c) $2.5 = \frac{35}{t}$ 14 s	1m 1m 1m 1m 1m

10.	a)	Dengan menggunakan Teorem Pythagoras, <i>With use of Pythagoras Theorem,</i>	
		$PS = \sqrt{5^2 + 12^2}$ $= 13$	1m
		$\cos x / \cos x = \frac{5}{13}$	1m
	b)	$\tan y = -\tan \text{ TRS}$ $= -\frac{3}{4}$	1m 1m
11.	a)	$\text{Area} = \frac{1}{2} \times 2h \times (2h + 3)$	1m
		$\text{Area} = 2h^2 + 3h$	1m
	b)		
		$2h^2 + 3h = 152$	1m
		$2h^2 + 3h - 152 = 0$	1m
		$(h - 8)(2h + 19) = 0$	1m
		$h = 8$	1m
	c)	$0.5 \times 0.5 = 0.25$	1m
		$152 \div (0.5 \times 0.5)$	1m
		608	1m

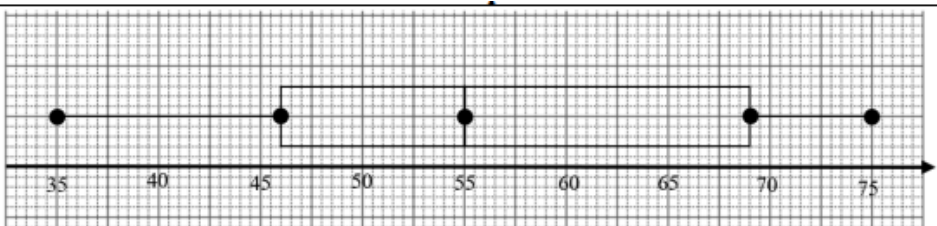
12.	a)	<table><tr><th>Derma (RM) <i>Donations (RM)</i></th><th>Kekerapan <i>Frequency</i></th><th>Titik tengah <i>Midpoint</i></th></tr><tr><td>30 – 39</td><td>5</td><td>34.5</td></tr><tr><td>40 – 49</td><td>7</td><td>44.5</td></tr><tr><td>50 – 59</td><td>9</td><td>54.5</td></tr><tr><td>60 – 69</td><td>11</td><td>64.5</td></tr><tr><td>70 – 79</td><td>8</td><td>74.5</td></tr><tr><td>80 – 89</td><td>6</td><td>84.5</td></tr><tr><td>90 – 99</td><td>4</td><td>94.5</td></tr></table>	Derma (RM) <i>Donations (RM)</i>	Kekerapan <i>Frequency</i>	Titik tengah <i>Midpoint</i>	30 – 39	5	34.5	40 – 49	7	44.5	50 – 59	9	54.5	60 – 69	11	64.5	70 – 79	8	74.5	80 – 89	6	84.5	90 – 99	4	94.5	3m
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b)	$\frac{(34.5 \times 5) + (44.5 \times 7) + (54.5 \times 9) + (64.5 \times 11) + (74.5 \times 8) + (84.5 \times 6) + (94.5 \times 4)}{5 + 7 + 9 + 11 + 8 + 6 + 4}$ $\frac{3165}{50}$ 63.3	1m 1m 1m																									
c)	Rujuk graf 3 Skala seragam dengan paksi mengufuk, $(21.5 \leq x \leq 51.5)$ dan paksi mencancang, $(0 \leq y \leq 80)$ Semua 7 titik diplot dengan skala yang seragam. Graf polygon kekerapan dilukis dengan licin.	1 2 1																									

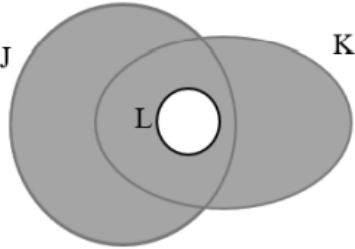
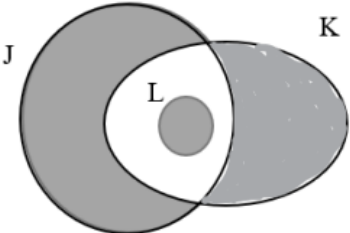
Kekerapan



Titik tengah

13.	(a)	$\frac{5}{7}$	1m
		$\frac{3}{4}$	1m
		$\frac{3}{5}$	1m
	(b)	(i)	1m
		$\frac{5}{7} \times \frac{3}{4} \times \frac{3}{5}$	
		$\frac{9}{28}$	1m
		(ii)	1m
		$\left(\frac{2}{7} \times \frac{1}{4} \times \frac{3}{5}\right) + \left(\frac{2}{7} \times \frac{3}{4} \times \frac{2}{5}\right) + \left(\frac{5}{7} \times \frac{1}{4} \times \frac{2}{5}\right)$	
		$\left(\frac{2}{7} \times \frac{1}{4} \times \frac{3}{5}\right) + \left(\frac{2}{7} \times \frac{3}{4} \times \frac{2}{5}\right) + \left(\frac{5}{7} \times \frac{1}{4} \times \frac{2}{5}\right)$	1m
		$\frac{1}{5}$	1m
14.	a)	a = 10050 b = 1005 c = 8795 d = 3300 e = 3000 f = 2495	1m 1m 1m 1m 1m 1m
	b)	Tidak boleh.	1m
		$(2495 + 1005) \times 15 \times 12$ <u>atau</u> setara	1m
		630000	1m
		Husna perlu mengurangkan perbelanjaan tidak tetapnya sekurang-kurangnya RM390 sebulan untuk mencapai matlamat kewangannya sebanyak RM700000 dalam tempoh 15 tahun.	1m

15.	(a) I. M: Rotation, 90^0 clockwise, centre at E @ (- 2, 1) II. N: Enlargement, scale factor 2, Centre at E @ (- 2, 1) b) $14 \times (2)^2$ 56	3m 3m 1m 1m
16.	(a) $\frac{8 \times 3}{9m \times 3} - \frac{5 - 4n}{27m}$ $\frac{24 - 5 + 4n}{27m}$ $\frac{19 + 4n}{27m}$	1m 2m 1m
(b)	 Nilai minimum, nilai maksimum, median, kuartil pertama dan kuartil ketiga diplot dengan betul Plot kotak dilukis dengan betul	3m 2m
(c)	a) $82\,790 - 9000 - 6860 - 2500$ RM 64 430 b) Cukai bagi 50 000 pertama : RM 1800 Cukai bagi baki berikutnya : $(64\,430 - 50\,000) \times 14\%$ RM2 020.20 Cukai pendapatan = $1\,800 + 2\,020.20 - 800$ = RM 3 020.20	1m 1m 1m 1m 1m 1m

(b)	(a) (i)  (ii)  (b) (i) $35-24$ 11 (ii) ξ <table border="1"> <thead> <tr> <th>Limau <i>Lemons</i></th> <th></th> <th>Strawberi <i>P Strawberries</i></th> </tr> </thead> <tbody> <tr> <td>11</td> <td>24</td> <td>26</td> </tr> <tr> <td></td> <td></td> <td>39</td> </tr> </tbody> </table>	Limau <i>Lemons</i>		Strawberi <i>P Strawberries</i>	11	24	26			39	1m 2m 2m 2m
Limau <i>Lemons</i>		Strawberi <i>P Strawberries</i>									
11	24	26									
		39									
(c)	A = pembesaran pada pusat (5,4) dengan faktor skala = 2 B = translasi $\begin{pmatrix} 2 \\ -3 \end{pmatrix}$	3m 2m									

