

Penyelesaian Lengkap

Praktis 10

Praktis Formatif

$$1 \quad I_{15,20} = \frac{\text{RM}12.40}{\text{RM}8.00} \times 100 \\ = 155$$

$$2 \quad (a) \quad I_{13,17} = \frac{\text{RM}5.40}{\text{RM}4.80} \times 100 \\ = 112.5$$

$$(b) \quad I_{17,21} = \frac{\text{RM}6.50}{\text{RM}5.40} \times 100 \\ = 120.37$$

$$3 \quad 127 = \frac{P_{18}}{\text{RM}56\,000} \times 100 \\ P_{18} = \text{RM}71\,120$$

$$4 \quad 118 = \frac{\text{RM}1\,475}{P_{13}} \times 100 \\ P_{13} = \text{RM}1\,250$$

$$5 \quad (a) \quad 116 = \frac{\text{RM}203}{P_{16}} \times 100 \\ P_{16} = \text{RM}175$$

$$(b) \quad I_{13,16} = \frac{\text{RM}175}{\text{RM}155} \times 100 \\ = 112.90$$

$$6 \quad x = \frac{\text{RM}26}{\text{RM}20} \times 100 \\ = 130$$

$$145 = \frac{y}{\text{RM}15} \times 100$$

$$y = 21.75$$

$$120 = \frac{\text{RM}9}{z} \times 100$$

$$z = 7.50$$

$$7 \quad I_{11,19} = \frac{115 \times 148}{100} \\ = 170.2$$

$$8 \quad I_{10,15} = 125$$

$$\frac{125 \times I_{15,20}}{100} = 182$$

$$I_{15,20} = 145.6$$

$$9 \quad (a) \quad \frac{I_{14,18} \times 112}{100} = 140$$

$$I_{14,18} = 125$$

$$(b) \quad 125 = \frac{\text{RM}5.25}{P_{14}} \times 100$$

$$P_{14} = \text{RM}4.20$$

$$10 \quad I_{15,19} = 120$$

$$I_{12,19} = \frac{135 \times 120}{100}$$

$$= 162$$

$$\frac{P_{19}}{\text{RM}45} \times 100 = 162$$

$$P_{19} = \text{RM}72.90$$

$$11 \quad \bar{I}_{16,20} = \frac{(142)(5) + (115)(4) + (105)(2) + (120)(1)}{5 + 4 + 2 + 1} \\ = 125$$

$$12 \quad \text{Sudut/Angles: } 120^\circ, 90^\circ, 60^\circ, 75^\circ, 15^\circ$$

$$\text{Pemberat/Weightages: } 8, 6, 4, 5, 1$$

$$\bar{I}_{18,21} = \frac{(122)(8) + (105)(6) + (130)(4) + (98)(5) + (114)(1)}{8 + 6 + 4 + 5 + 1} \\ = 113.75$$

$$13 \quad A: I_{15,21} = \frac{\text{RM}4.20}{\text{RM}3.50} \times 100 \\ = 120$$

$$B: I_{15,21} = \frac{\text{RM}8.10}{\text{RM}6.00} \times 100 \\ = 135$$

$$C: I_{15,21} = \frac{\text{RM}15.75}{\text{RM}17.50} \times 100 \\ = 90$$

$$\bar{I}_{15,21} = \frac{(120)(3) + (135)(6) + (90)(1)}{3 + 6 + 1} \\ = 126$$

$$14 \quad \begin{array}{r} \text{Indek/Index} \\ \text{Berat/Weightage} \end{array}$$

Nasi/Rice:	140	2
Ayam/Chicken:	125	4
Ikan/Fish:	95	6
Sayur/Vegetables:	100	3

$$\bar{I}_{13,17} = \frac{(140)(2) + (125)(4) + (95)(6) + (100)(3)}{2 + 4 + 6 + 3} \\ = 110$$

$$15 \quad \text{Pemberat/Weightages: } 6, 3, 2, 1$$

$$\frac{(105)(6) + (140)(3) + (p)(2) + (120)(1)}{6 + 3 + 2 + 1} = 125$$

$$\frac{2p + 1\,170}{12} = 125$$

$$1\,170 + 2p = 1\,500$$

$$2p = 330$$

$$p = 165$$

$$16 \quad \frac{(150)(4) + (144)(5) + (110)(k) + (125)(2)}{4 + 5 + k + 2} = 128$$

$$\frac{1\,570 + 110k}{11 + k} = 128$$

$$1\,570 + 110k = 1\,408 + 128k$$

$$18k = 162$$

$$k = 9$$

$$17 \quad \frac{136m + 124n}{m + n} = 131.5$$

$$136m + 124n = 131.5m + 131.5n$$

$$4.5m = 7.5n$$

$$\frac{m}{n} = \frac{5}{3}$$

$$m : n = 5 : 3$$

18 $20 + 40 + 15 + n = 100$
 $n = 25$

Pemberat/Weightages: 4, 8, 3, 5

$$\frac{(115)(4) + (m)(8) + (90)(3) + (170)(5)}{4 + 8 + 3 + 5} = 137$$

$$\frac{1\ 580 + 8m}{20} = 137$$

$$1\ 580 + 8m = 2\ 740$$

$$8m = 1\ 160$$

$$m = 145$$

19 P: $I_{15,21} = \frac{135 \times 120}{100} = 162$

Q: $I_{15,21} = \frac{140 \times 105}{100} = 147$

R: $I_{15,21} = \frac{110 \times 95}{100} = 104.5$

$$\bar{I}_{15,21} = \frac{(162)(5) + (147)(2) + (104.5)(3)}{5 + 2 + 3}$$

$$= 141.75$$

20 (a) $\bar{I}_{16,19} = \frac{(108)(2) + (124)(5) + (115)(8) + (96)(1)}{2 + 5 + 8 + 1}$
 $= \text{RM}115.75$

(b) $\frac{P_{19}}{\text{RM}180} \times 100 = 115.75$
 $P_{19} = \text{RM}208.35$

Praktis Sumatif

Kertas 2

1 (a) $p = \frac{\text{RM}30}{\text{RM}24} \times 100$
 $= 125$

$$120 = \frac{q}{\text{RM}40} \times 100$$

$$q = 48$$

$$90 = \frac{\text{RM}18}{r} \times 100$$

$$r = 20$$

(b) Pemberat/Weightages: 6 : 7 : 5 : 2

$$\bar{I}_{14,17} = \frac{(125)(6) + (120)(7) + (90)(5) + (115)(2)}{6 + 7 + 5 + 2}$$

$$= 113.5$$

(c) A: 100, B: 130, C: 100, D: 90

$$A: I_{14,21} = \frac{125 \times 100}{100} = 125$$

$$B: I_{14,21} = \frac{120 \times 130}{100} = 156$$

$$C: I_{14,21} = \frac{90 \times 100}{100} = 90$$

$$D: I_{14,21} = \frac{115 \times 90}{100} = 103.5$$

$$\bar{I}_{14,21} = \frac{(125)(6) + (156)(7) + (90)(5) + (103.5)(2)}{6 + 7 + 5 + 2}$$

$$= 124.95$$

2 (a) $95 = \frac{x}{\text{RM}7.60} \times 100$
 $x = 7.22$

$$150 = \frac{\text{RM}2.40}{y} \times 100$$

$$y = 1.60$$

$$z = \frac{\text{RM}0.60}{\text{RM}0.50} \times 100$$

$$= 120$$

(b) Pemberat/Weightages: 10 : 6 : 3 : 5

$$\bar{I}_{16,18} = \frac{(135)(10) + (95)(6) + (150)(3) + (120)(5)}{10 + 6 + 3 + 5}$$

$$= 123.75$$

(c) $\frac{\text{RM}792 \text{ million}}{P_{16}} \times 100 = 123.75$

$$P_{16} = \text{RM}640 \text{ juta/million}$$

(d) $\frac{108 \times I_{17,18}}{100} = 135$

$$I_{17,18} = 125$$

3 (a) (i) $135 = \frac{\text{RM}108}{P_{14}} \times 100$

$$P_{14} = \text{RM}80$$

(ii) $115 = \frac{P_{16}}{\text{RM}54} \times 100$

$$P_{16} = \text{RM}62.10$$

(b) $I_{16,18}$: A: 130, B: 95, C: 100, D: 110

$$A: I_{14,18} = \frac{135 \times 130}{100} = 175.5$$

$$B: I_{14,18} = \frac{120 \times 95}{100} = 114$$

$$C: I_{14,18} = \frac{115 \times 100}{100} = 115$$

$$D: I_{14,18} = \frac{140 \times 110}{100} = 154$$

$$\bar{I}_{14,18} = \frac{(175.5)(3) + (114)(2) + (115)(9) + (154)(6)}{3 + 2 + 9 + 6}$$

$$= 135.68$$

(c) $135.68 = \frac{P_{18}}{\text{RM}15\ 000} \times 100$

$$P_{18} = \text{RM}20\ 352$$

4 (a) (i) $I = \frac{784}{670} \times 100$

$$= 117$$

(ii) $106 = \frac{\text{RM}230}{P_{16}} \times 100$

$$P_{16} = \text{RM}217$$

$$124(5) + 117(4) + 114(3) + 115(3)$$

(b) $\frac{+ 105(1) + 106(1) + 104(1) + 108w}{5 + 4 + 3 + 3 + 1 + 1 + 1 + w} = 115.3$

$$\frac{2\ 090 + 108w}{18 + w} = 115.3$$

$$2\ 090 + 108w = 2\ 075.4 + 115.3w$$

$$7.3w = 14.6$$

$$w = 2$$

(c) (i) $I_{19,22} = \frac{115.3 \times 118}{100} \times 100$

$$= 136.05$$

(ii) Jumlah perbelanjaan bagi tahun 2016

Total expenses for 2016

$$= 850 + 670 + 536 + 525 + 218 + 217 + 192 + 309$$

$$= \text{RM} 3\ 517$$

$$\frac{P_{22}}{3\,517} \times 100 = 136.05$$

$$P_{22} = \text{RM}4\,784.88 (< \text{RM}4\,800)$$

Amaun ini mencukupi.

This amount is sufficient.

$$5 \text{ (a) } x = \frac{\text{RM}10.85}{\text{RM}8.75} \times 100$$

$$= 124$$

(b) Pemberat/Weightages: 7 : 5 : 1 : 2

$$\frac{(140)(7) + (124)(5) + (119)(1) + (2)(y)}{7 + 5 + 1 + 2} = 132.6$$

$$\frac{1\,719 + 2y}{15} = 132.6$$

$$1\,719 + 2y = 1\,989$$

$$2y = 270$$

$$y = 135$$

$$(c) \frac{112 \times I_{18,22}}{100} = 132.6$$

$$I_{18,22} = 118.39$$

$$(d) \frac{P_{18,22}}{\text{RM}3.80} \times 100 = 118.39$$

$$I_{18,22} = \text{RM}4.50$$

Harga jualan/Selling price

$$= \frac{160}{100} \times \text{RM}4.50$$

$$= \text{RM}7.20$$

$$6 \text{ (a) } a = \frac{\text{RM}6.20}{\text{RM}5.00} \times 100$$

$$= 124$$

$$\frac{\text{RM}3.90}{\text{RM}b} \times 100 = 130$$

$$b = 3.00$$

$$\frac{\text{RM}c}{\text{RM}2.80} \times 100 = 110$$

$$c = 3.08$$

$$(b) \frac{(124)(n) + (130)(1) + (110)(3) + (115)(n+1)}{n+1+3+n+1} = 118$$

$$\frac{239n + 575}{2n + 5} = 118$$

$$239n + 575 = 236n + 590$$

$$3n = 15$$

$$n = 5$$

$$(c) 118 = \frac{P_{18}}{\text{RM}15} \times 100$$

$$P_{18} = \text{RM}17.70$$

$$(d) I_{14,21} = \frac{118 \times 136}{100}$$

$$= 160.48$$

$$7 \text{ (a) } 130 = \frac{P_{17}}{\text{RM}6.50} \times 100$$

$$P_{17} = \text{RM}8.45$$

$$(b) m = 2n \dots \textcircled{1}$$

$$\frac{(130)(n) + (120)(9) + (105)(2n) + (140)(5)}{n + 9 + 2n + 5} = 123$$

$$\frac{340n + 1\,780}{3n + 14} = 123$$

$$340n + 1\,780 = 369n + 1\,722$$

$$29n = 58$$

$$n = 2$$

Gantikan ke dalam $\textcircled{1}$ /Substitute into $\textcircled{1}$,

$$m = 2n$$

$$= 4$$

$$(c) I_{15,19} = \frac{123 \times 110}{100}$$

$$= 135.3$$

$$(d) \frac{P_{19}}{\text{RM}45} \times 100 = 135.3$$

$$P_{19} = \text{RM}60.89$$

$$\text{Harga jualan/Selling price} = \frac{140}{100} \times \text{RM}60.89$$

$$= \text{RM}85.25$$

$$8 \text{ (a) } \frac{\text{RM}85\,800}{P_{12}} \times 100 = 132$$

$$P_{12} = \text{RM}65\,000$$

$$(b) 15 + x + 25 + y + 5 = 100$$

$$x + y = 55$$

$$x = 55 - y \dots \textcircled{1}$$

$$\frac{(130)(15) + (95)(x) + (132)(25) + (120)(y) + (110)(5)}{100} = 119$$

$$\frac{5\,800 + 95x + 120y}{100} = 119$$

$$5\,800 + 95x + 120y = 11\,900$$

$$95x + 120y = 6\,100 \dots \textcircled{2}$$

Gantikan $\textcircled{1}$ ke dalam $\textcircled{2}$ /Substitute $\textcircled{1}$ into $\textcircled{2}$,

$$95(55 - y) + 120y = 6\,100$$

$$5\,225 - 95y + 120y = 6\,100$$

$$25y = 875$$

$$y = 35$$

$$x = 55 - 35$$

$$= 20$$

$$(c) I_{12,20} = \frac{120 \times 115}{100}$$

$$= 138$$

$$\frac{P_{20}}{\text{RM}45\,000} \times 100 = 138$$

$$P_{20} = \text{RM}62\,100$$