

# Penyelesaian Lengkap

## PRAKTIS 12

### Bahagian A

- 1 M mempunyai kekerapan tertinggi.  
M has the highest frequency.  
Jawapan/Answer: B
- 2 23, 29, 31,  $\boxed{37, 39}$ , 42, 51, 60  
Median =  $\frac{37 + 39}{2}$   
=  $\frac{76}{2}$   
= 38  
Jawapan/Answer: C
- 3 Jumlah kekerapan/Total frequency =  $6 + 4 + 5 + 3 + 1$   
= 19  
Median ialah sebutan ke-10.  
Median is the 10<sup>th</sup> term.  
 $T_1, \dots, T_9, \textcircled{T_{10}}, T_{11}, \dots, T_{19}$   
← → ← →  
9 sebutan                      9 sebutan  
9 terms                              9 terms  
 $T_{10} = 20$  kg  
Jawapan/Answer: C
- 4 Jumlah kekerapan/Total frequency  
=  $4 + 3 + 4 + 3 + 2 + 1$   
= 17  
Median =  $T_9$   
 $T_9 = 3$   
Jawapan/Answer: A
- 5 Jumlah kekerapan/Total frequency =  $3 + 5 + 6 + 4 + 3$   
= 21  
Median =  $T_{11}$   
 $T_{11} = 15$   
Jawapan/Answer: B
- 6 Min/Mean =  $\frac{(2 \times 30) + (3 \times 40) + (4 \times 50) + (2 \times 60) + (1 \times 70) + (1 \times 80)}{2 + 3 + 4 + 2 + 1 + 1}$   
=  $\frac{60 + 120 + 200 + 120 + 70 + 80}{13}$   
=  $\frac{650}{13}$   
= 50 minit/minutes  
Jawapan/Answer: D
- 7 Min/Mean =  $\frac{(4 \times 10) + (6 \times 15) + (5 \times 20) + (2 \times 25) + (3 \times 30)}{4 + 6 + 5 + 2 + 3}$   
=  $\frac{40 + 90 + 100 + 50 + 90}{20}$

$$= \frac{370}{20}$$

$$= 18.5$$

Jawapan/Answer: A

- 8 25 ialah suatu nilai ekstrem kerana 25 adalah terlalu kecil.  
25 is an extreme value because 25 is too small.  
Jawapan/Answer: A
- 9 Selang kelas 25 – 29 mempunyai kekerapan tertinggi.  
Class interval 25 – 29 has the highest frequency.  
Jawapan/Answer: C
- 10 Min data asal/Mean of original data = 12  
Min baharu data/New mean of data =  $4 \times 12$   
= 48

Jawapan/Answer: D

11 Median =  $\frac{T_5 + T_6}{2}$   
=  $\frac{74 + 76}{2}$   
=  $\frac{150}{2}$   
= 75

Jawapan/Answer: C

12 Jawapan/Answer: B

13 Min/Mean = 9

$$\frac{5 + 8 + 10 + x + 13 + 7}{6} = 9$$

$$x + 43 = 6 \times 9$$

$$x = 54 - 43$$

$$= 11$$

Jawapan/Answer: D

### Bahagian B

- 1 (a) 115  
(b) 54, 60,  $\boxed{63, 63, 63}$ , 67, 68, 68, 69, 75

$$\text{Mod/Mode} = 63$$

$$\text{Median} = \frac{63 + 67}{2}$$

$$= \frac{130}{2}$$

$$= 65$$

$$54 + 60 + 63 + 63 + 63 + 67 + 68 +$$

$$\text{Min/Mean} = \frac{68 + 69 + 75}{10}$$

$$= \frac{650}{10}$$

$$= 65$$

- 2 (a) (i) ✗                                      (ii) ✓  
(b) Mod/Mode = 70, Median = 60

- 3 (a) (i) 5  
(ii) Matematik/Mathematics  
(b) Median =  $\frac{28 + 28}{2}$   
= 28°C

### Bahagian C

- 1 (a) (i) 4 jam/hours  
(ii) Median =  $\frac{T_{20} + T_{21}}{2}$   
=  $\frac{3 + 3}{2}$   
= 3 jam/hours  
(iii) Min/Mean =  $\frac{(5 \times 1) + (7 \times 2) + (9 \times 3) + (11 \times 4) + (8 \times 5)}{5 + 7 + 9 + 11 + 8}$   
=  $\frac{5 + 14 + 27 + 44 + 40}{40}$   
=  $\frac{130}{40}$   
= 3.25 jam/hours

(b) (i)

Simpanan Savings (RM)	Gundalan Tally	Kekerapan Frequency
21 – 30		3
31 – 40		6
41 – 50		6
51 – 60		7
61 – 70		8

- (ii) Peratus/Percentage =  $\frac{8}{3 + 6 + 6 + 7 + 8} \times 100\%$   
=  $\frac{8}{30} \times 100\%$   
= 26.67%

(iii)

Simpanan Savings (RM)	Kekerapan Frequency (f)	Titik Tengah Midpoint (x)	f × x
21 – 30	3	25.5	76.5
31 – 40	6	35.5	213
41 – 50	6	45.5	273
51 – 60	7	55.5	388.5
61 – 70	8	65.5	524
	<b>30</b>		<b>1 475</b>

$$\text{Min/Mean} = \frac{1\,475}{30}$$

$$= \text{RM}49.17$$

- 2 (a) Min/Mean = 12

$$\frac{6 + 10 + 7 + 15 + x + 13 + 12 + 8}{8} = 12$$

$$x + 71 = 12 \times 8$$

$$x = 96 - 71$$

$$= 25$$

6, 7, 8, 10, 12, 13, 15, 25

$$\text{Median} = \frac{10 + 12}{2}$$

$$= \frac{22}{2}$$

$$= 11$$

- (b) (i) 30 – 39

(ii)

Bil air Water bill (RM)	Kekerapan Frequency (f)	Titik Tengah Midpoint (x)	f × x
10 – 19	5	14.5	72.5
20 – 29	9	24.5	220.5
30 – 39	14	34.5	483
40 – 49	10	44.5	445
50 – 59	2	54.5	109
	<b>40</b>		<b>1 330</b>

$$\text{Min/Mean} = \frac{\text{RM}1\,330}{40}$$

$$= \text{RM}33.25$$

- (c)  $\frac{x_1 + x_2 + x_3 + \dots + x_8}{8} = 12$

$$x_1 + x_2 + x_3 + \dots + x_8 = 12 \times 8$$

$$= 96$$

$$\text{Jumlah baharu/New total} = 96 - (14 + x)$$

$$= 96 - 14 - x$$

$$= 82 - x$$

$$\text{Min baharu/New Mean} = 10$$

$$\frac{82 - x}{6} = 10$$

$$82 - x = 60$$

$$x = 82 - 60$$

$$= 22$$