

# OPERASI SET

## JOHOR

- 13 Fiza dikehendaki memilih satu daripada tiga sampul soalan. Dia perlu menjawab soalan dengan betul untuk memenangi satu pertandingan. Jadual 3 menunjukkan soalan-soalan yang terdapat dalam setiap sampul.

*Fiza is required to choose an envelope from the three question envelopes. She needs to answer the questions correctly in order to win a competition. Table 3 shows the questions in each of the envelopes.*

Sampul / envelope	Soalan / questions
A	Nombor perdana kurang dari 15 <i>Prime number less than 15</i>
B	Faktor bagi 8 <i>Factor of 18</i>
C	Gandaan 4 kurang dari 15 <i>Multiple of 4 less than 15</i>

Jadual 3  
Table 3

- (a) (i) Senaraikan semua jawapan bagi soalan dalam setiap sampul A,B dan C.  
*List all the answers for the questions in each envelopes A,B and C.*
- (ii) Lukis satu gambar rajah Venn untuk menunjukkan hubungan antara ketiga-tiga set tersebut.  
*Draw a Venn Diagram to show the relationship among the three sets.*

[5 Markah / Marks]

- (b) Gambarajah Venn di ruang jawapan menunjukkan set  $P$ ,  $Q$  dan  $R$  di mana set semesta,  $\xi = P \cup Q \cup R$ . Lorek di ruang jawapan :

*The Venn diagrams in the answer space shows sets  $P$ ,  $Q$  and  $R$  such that the universal set,  $\xi = P \cup Q \cup R$ . Shade in the answer space :*

- (i)  $P \cap R'$
- (ii)  $(P \cap R) \cup Q$

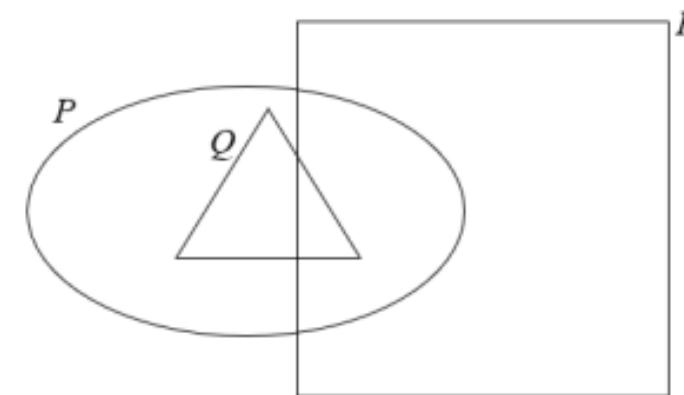
[3 Markah / Marks]

Jawapan/ Answer :

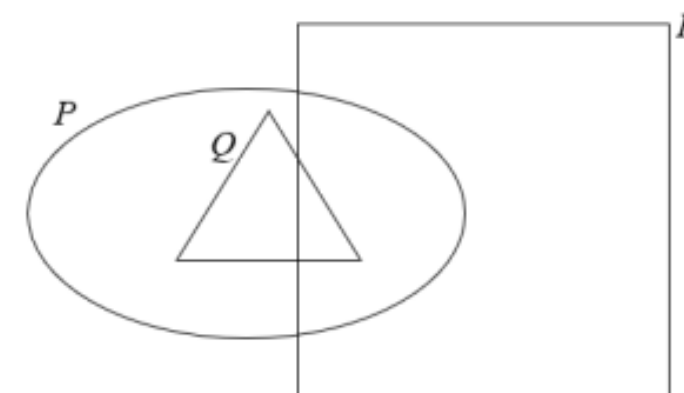
(a) (i)

(ii)

(b) (i)



(ii)



# OPERASI SET

**MELAKA**

**PERAK**

13 (a) Diberi set semesta,  $\xi = \{x : 4 \leq x \leq 12, x \text{ ialah integer}\}$ , set  $K = \{x : x \text{ ialah nombor ganjil}\}$  dan set  $L = \{x : x \text{ ialah faktor bagi } 40\}$ .  
 Given the universal set,  $\xi = \{x : 4 \leq x \leq 12, x \text{ is an integer}\}$ , set  $K = \{x : x \text{ is an odd number}\}$  and set  $L = \{x : x \text{ is a factor of } 40\}$ .

- (i) Senaraikan semua unsur bagi set  $K$  dan set  $L$ ,  
 List all the elements of set  $K$  and set  $L$ . [2 markah/marks]
- (ii) Seterusnya, lukis gambar rajah Venn bagi menunjukkan hubungan antara set  $\xi$ , set  $K$  dan set  $L$ .  
 Hence, draw a Venn diagram to represent the relationship between set  $\xi$ , set  $K$  and set  $L$ . [3 markah/marks]

Jawapan / Answer :

(a) (i) Set  $K$  : .....  
 Set  $L$  : .....

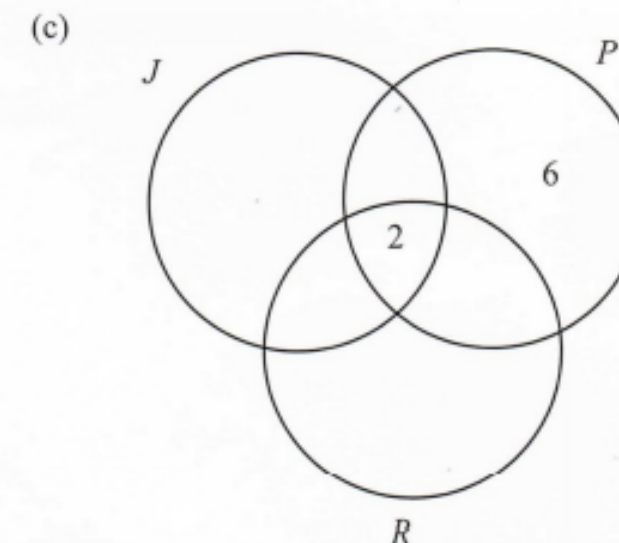
(c) Jadual 2.1 adalah maklumat peserta sebahagian acara yang dipertandingkan dalam kejohanan tersebut.  
 Table 2.1 is an information on the participants of some of the events contested in the tournament.

Acara Event	Bilangan peserta Number of participant
Lompat jauh ( $J$ ) Long jump ( $J$ )	10
Lontar peluru ( $P$ ) Shot put ( $P$ )	14
Rejam lembing ( $R$ ) Javelin throw ( $R$ )	10
Lompat jauh dan rejam lembing Long jump and javelin throw	5
Lompat jauh dan lontar peluru Long jump and shot put	4
Lontar peluru dan rejam lembing Shot jump and shot put	6
Ketiga-tiga acara All three events	2

Jadual 2.1 / Table 2.1

Lengkapkan gambar rajah Venn di ruang jawapan bagi menunjukkan bilangan peserta yang menyertai acara-acara itu.  
 Complete the Venn diagram in the answer space to show the number of participant in the events.  
 [3 markah / marks]

Jawapan / Answer:



**MELAKA**

- (b) Suatu soal selidik tentang permainan yang disukai oleh sekumpulan murid lelaki telah dilakukan oleh Cikgu Yeoh. Jadual 3 menunjukkan hasil soal selidikanya.

*A questionnaire about the games that a group of male students liked was conducted by Cikgu Yeoh. Table 3 shows the results of the questionnaire.*

Jenis permainan <i>Types of games</i>	Bilangan murid <i>Number of students</i>
Bola sepak <i>Football</i>	60
Sepak takraw <i>Sepak takraw</i>	40
Badminton <i>Badminton</i>	30
Bola sepak dan sepak takraw <i>Football and sepak takraw</i>	15
Sepak takraw dan badminton <i>Sepak takraw and badminton</i>	10
Bola sepak dan badminton <i>Football and badminton</i>	5
Bola sepak, sepak takraw dan badminton <i>Football, sepak takraw and badminton</i>	1

Jadual 3 / *Table 3*

- (i) Rajah 4 pada ruang jawapan menunjukkan gambar rajah Venn yang tidak lengkap. Diberi bahawa set  $F = \{\text{murid yang menyukai permainan bola sepak}\}$ , set  $T = \{\text{murid yang menyukai permainan sepak takraw}\}$  dan set  $B = \{\text{murid yang menyukai permainan badminton}\}$ . Menggunakan maklumat dalam Jadual 3, lengkapkan gambar rajah Venn di ruang jawapan.

*Diagram 4 in the answer space shows an incomplete Venn diagram. It is given that set  $F = \{\text{students who like football games}\}$ , set  $T = \{\text{students who like sepak takraw games}\}$  and set  $B = \{\text{students who like badminton games}\}$ . Using the information in Table 3, complete the Venn diagram in the answer space.*

[2 markah/marks]

- (ii) Hitung jumlah murid yang menyukai sekurang-kurangnya dua jenis permainan.  
*Calculate the number of students who like at least two types of games.*

[1 markah/marks]

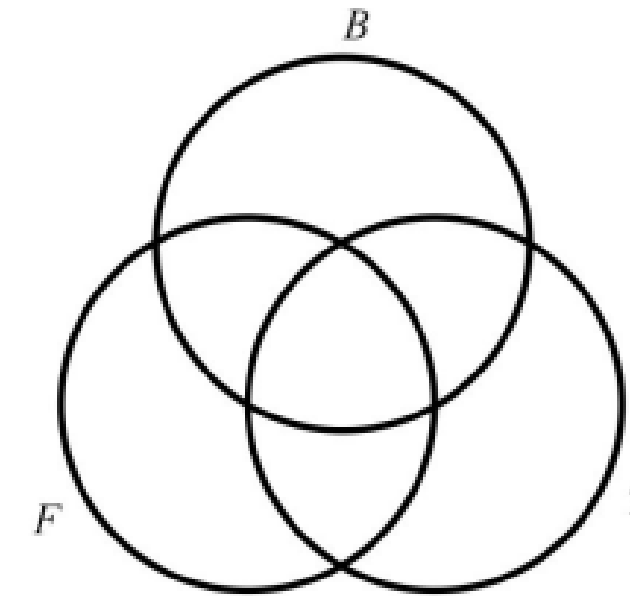
- (iii) Seterusnya, hitung bilangan murid yang tidak menyukai permainan bola sepak.  
*Hence, calculate the number of students who do not like the game of football.*

[1 markah/marks]

**OPERASI SET**

Jawapan / *Answer* :

- (b) (i)



Rajah 4 / *Diagram 4*

# OPERASI SET

**N9**

13 Diberi bahawa set semesta,  $\xi = \{x : x \text{ ialah integer, } 1 \leq x \leq 20\}$ .

Set  $P = \{x : x \text{ ialah nombor kuasa dua sempurna}\}$

Set  $Q = \{x : x \text{ ialah nombor yang boleh dibahagi tepat dengan } 5\}$

Set  $R = \{x : x \text{ ialah faktor bagi } 15\}$

Given that the universal set,  $\xi = \{x : x \text{ is an integer, } 1 \leq x \leq 20\}$ .

Set  $P = \{x : x \text{ is a perfect square}\}$

Set  $Q = \{x : x \text{ is a number that is exactly divisible by } 5\}$

Set  $R : \{x : x \text{ is a factor of } 15\}$

(a) Senaraikan unsur bagi  $P$ ,  $Q$  dan  $R$  dengan menggunakan tatatanda set.

List the elements of  $P$ ,  $Q$  and  $R$  by using the set notation.

[3 markah]  
[3 marks]

(b) (i) Lengkapkan gambar rajah Venn pada ruang jawapan untuk menunjukkan hubungan antara ketiga-tiga set  $P$ , set  $Q$  dan set  $R$ .

Complete the Venn diagram in the answer space to show the relationship between the three set  $P$ , set  $Q$  and set  $R$ .

(ii) Seterusnya, cari set  $(P \cup Q) \cap R'$  dan  $n(P \cup Q) \cap R'$ .

Next, find set  $(P \cup Q) \cap R'$  and  $n(P \cup Q) \cap R'$ .

[5 markah]

Jawapan / Answer:

(a) Set  $P$  :

Set  $Q$  :

Set  $R$  :

(b) (i)  $\xi$

(ii)  $(P \cup Q) \cap R' =$

$n(P \cup Q) \cap R' =$

**PERLIS****OPERASI SET**

13 (a) Diberi set semesta,  $\xi = \{x : 22 < x < 32, x \text{ ialah integer}\}$

Given universal set,  $\xi = \{x : 22 < x < 32, x \text{ is an integer}\}$

Set  $P = \{x : x \text{ ialah gandaan } 6\}$

$\{x : x \text{ is a multiple of } 6\}$

Set  $Q = \{x : x \text{ ialah nombor yang mempunyai dua faktor sahaja}\}$

$\{x : x \text{ is a number that has only two factors}\}$

Set  $R = \{x : x \text{ ialah nombor genap}\}$

$\{x : x \text{ is an even number}\}$

(i) Senaraikan semua unsur bagi set  $P$ ,  $Q$  dan  $R$  dengan menggunakan tatatanda set. [3 markah]

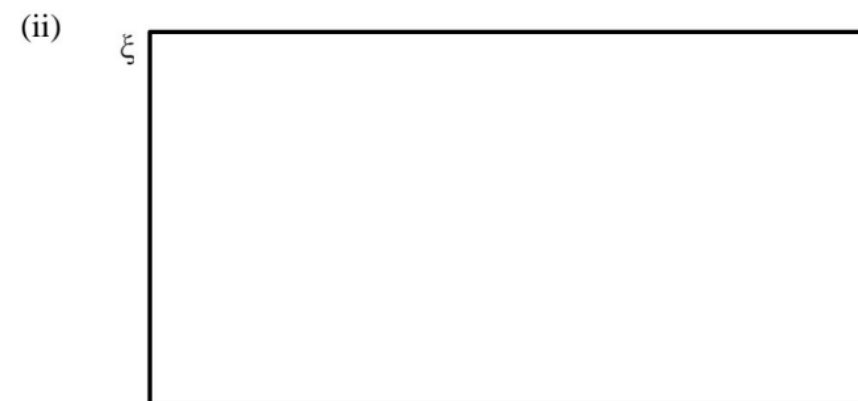
List the element of set  $P$ ,  $Q$  and  $R$  by using the set notation. [3 marks]

(ii) Pada Rajah 8 di ruang jawapan, lukis dan lengkapkan set semesta  $\xi$ , set  $P$ ,

set  $Q$  dan set  $R$ . [3 markah]

On Diagram 8 in the answer space, draw and complete the universal set

$\xi$ , set  $P$ , set  $Q$  and set  $R$ . [3 marks]



Rajah 8  
Diagram 8

(b) SMK Seri Jerneh telah mengadakan bulan STEM. Pelbagai aktiviti telah diadakan seperti aktiviti membina jambatan, pertandingan kapal terbang kertas dan Kuiz STEM. Semua murid Tingkatan 5 terlibat dengan sekurang-kurangnya satu daripada aktiviti tersebut. Jadual 6 menunjukkan bilangan murid yang terlibat.

SMK Seri Jerneh has conducted a STEM month. Various activities such as bridge building, paper airplanes competition and STEM Quiz. All form 5 pupils are involved in at least one of these activities. Table 6 shows the number of pupils involved.

Aktiviti Activities	Bilangan murid Number of pupils
Menyertai ketiga-tiga aktiviti Participate in all three activities	53
Membina jambatan dan pertandingan kapal terbang kertas Bridge building and paper airplane competition	22
Membina jambatan dan Kuiz STEM Bridge building and STEM Quiz	85
Pertandingan kapal terbang kertas dan Kuiz STEM Paper airplane competition and STEM Quiz	94
Pertandingan kapal terbang kertas Paper airplane competition	136
Membina jambatan Bridge building	146
Menyertai Kuiz STEM sahaja Participate STEM Quiz only	7

Jadual 6  
Table 6

## PERLIS

- (b) SMK Seri Jerneh telah mengadakan bulan STEM. Pelbagai aktiviti telah diadakan seperti aktiviti membina jambatan, pertandingan kapal terbang kertas dan Kuiz STEM. Semua murid Tingkatan 5 terlibat dengan sekurang-kurangnya satu daripada aktiviti tersebut. Jadual 6 menunjukkan bilangan murid yang terlibat.

*SMK Seri Jerneh has conducted a STEM month. Various activities such as bridge building, paper airplanes competition and STEM Quiz. All form 5 pupils are involved in at least one of these activities. Table 6 shows the number of pupils involved.*

Aktiviti <i>Activities</i>	Bilangan murid <i>Number of pupils</i>
Menyertai ketiga-tiga aktiviti <i>Participate in all three activities</i>	53
Membina jambatan dan pertandingan kapal terbang kertas <i>Bridge building and paper airplane competition</i>	22
Membina jambatan dan Kuiz STEM <i>Bridge building and STEM Quiz</i>	85
Pertandingan kapal terbang kertas dan Kuiz STEM <i>Paper airplane competition and STEM Quiz</i>	94
Pertandingan kapal terbang kertas <i>Paper airplane competition</i>	136
Membina jambatan <i>Bridge building</i>	146
Menyertai Kuiz STEM sahaja <i>Participate STEM Quiz only</i>	7

Jadual 6  
*Table 6*

## OPERASI SET

- (i) Rajah 9 di ruang jawapan menunjukkan gambarajah Venn yang tidak lengkap.

*Diagram 9 on the answer space shows incomplete Venn Diagram.*

Set  $J = \{\text{murid yang menyertai aktiviti membina jambatan}\}$

*\{pupils who participate in bridge building\}*

Set  $K = \{\text{murid yang menyertai aktiviti menerbangkan kapal terbang kertas}\}$

*\{pupils who participate of paper airplane competition\}*

Set  $S = \{\text{murid yang menyertai Kuiz STEM}\}$

*\{pupils who participate STEM Quiz\}*

Lengkapkan gambarajah Venn berdasarkan maklumat di Jadual 6.

[2 markah]

*Complete the Venn Diagram based on Table 6.*

[2 marks]

- (ii) Hitung jumlah murid Tingkatan 5 di SMK Seri Jerneh.

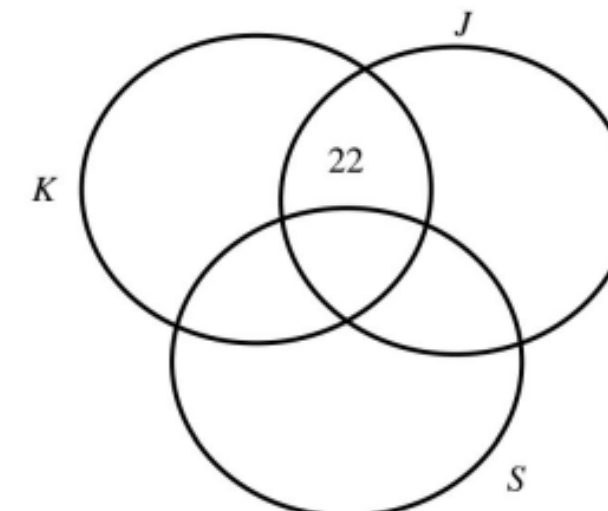
[1 markah]

*Calculate the total of Form 5 pupils in SMK Seri Jerneh.*

[1 mark]

Jawapan/Answer:

- (b) (i)



Rajah 9  
*Diagram 9*

**SMKA/ SABK SET 1****OPERASI SET****SMKA/ SABK SET 2**

- 13 Diberi set semesta  $\xi = \{x: 1 \leq x < 10, x \text{ ialah integer positif}\}$ , set  $P = \{x: x \text{ ialah gandaan } 2\}$ , set  $Q = \{x: x \text{ ialah gandaan } 3\}$  dan set  $R = \{x: x \text{ ialah nombor kuasa dua sempurna}\}$   
 Given that universal set  $\xi = \{x: 1 \leq x < 10, x \text{ is a positive integer}\}$ , set  $P = \{x: x \text{ is a multiple of } 2\}$ , set  $Q = \{x: x \text{ is a multiple of } 3\}$  and set  $R = \{x: x \text{ is a perfect square number}\}$

- (a) Senaraikan semua set  $P$ ,  $Q$  dan  $R$  dengan menggunakan tatatanda set.

List all the set  $P$ ,  $Q$  and  $R$  by using set notation.

[ 3 markah]

[3 marks]

- (b) Lukis satu gambar rajah Venn untuk menunjukkan hubungan antara kesemua set yang anda nyatakan di 13(a).

Draw a Venn diagram to show the relation between all the sets that you mentioned in 13(a).

[3 markah]

[3 marks]

- (c) Cari  $(P \cap Q) \cup R'$  dan  $n(P \cap Q) \cup R'$ .

Find  $(P \cap Q) \cup R'$  and  $n(P \cap Q) \cup R'$ .

[ 2 markah]

[2 mark]

- 2 Gambar rajah Venn di ruang jawapan menunjukkan set  $P$ , set  $Q$  dan set  $R$  dengan keadaan set semesta,  $\xi = P \cup Q \cup R$ . Pada rajah di ruang jawapan, lorek set  
 The Venn diagram in the answer space shows set  $P$ , set  $Q$  and set  $R$  such that the universal set,  $\xi = P \cup Q \cup R$ . On the diagram in the answer space, shade the set

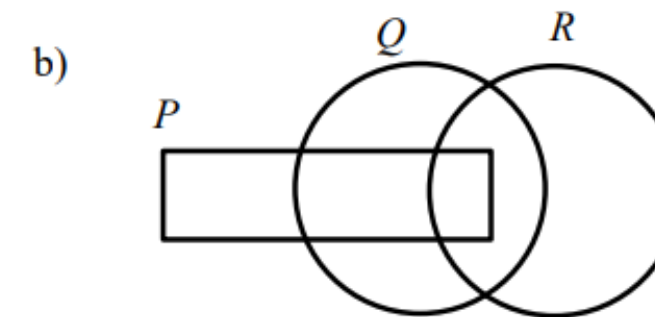
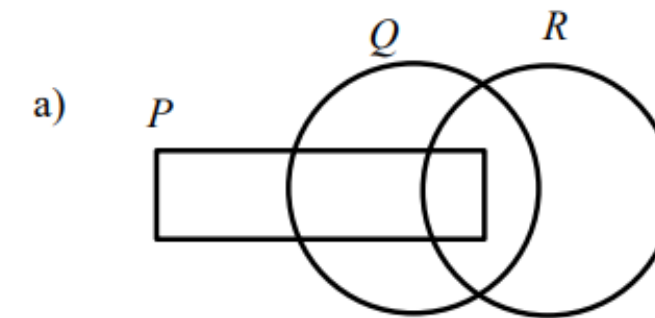
a)  $P \cap Q$

b)  $(Q' \cup R) \cap P$

[3 markah]

[3 marks]

Jawapan / Answer :



## TERENGGANU MPP3

## OPERASI SET

## KEDAH

- 10 Diberi set semesta,  $\xi = \{x : x \text{ ialah integer}, 3 \leq x \leq 15, \}$ ,  $F = \{4, 7, 8, 11, 12\}$ ,  $G = \{x : x \text{ ialah faktor bagi } 36\}$  dan  $H = \{x : x \text{ ialah nombor gandaan } 5\}$ .

Given that the universal set,  $\xi = \{x : x \text{ is an integer}, x : 3 \leq x \leq 15\}$ ,  $F = \{4, 7, 8, 11, 12\}$ ,  $G = \{x : x \text{ is a factor of } 36\}$  and  $H = \{x : x \text{ is a multiples of } 5\}$ .

- (a) Berdasarkan maklumat di atas, lengkapkan gambarajah Venn di ruang jawapan.  
Based on the above information, complete the Venn diagram in the answer space.

[3 markah]

[3 marks]

- (b) (i) Senaraikan unsur bagi  $F \cup G'$   
List the elements of  $F \cup G'$

- (ii) Cari  $n(F \cup G')$   
Find  $n(F \cup G')$

[2 markah]

[2 marks]

Jawapan / Answer :



- 8 Rajah 8 di ruang jawapan menunjukkan sebahagian daripada gambar rajah Venn yang tidak lengkap dengan keadaan  $\xi = P \cup Q \cup R$ . Diberi set  $P = \{x : x \text{ ialah nombor perdana}, x \leq 10\}$ , set  $Q = \{x : x \text{ ialah nombor genap}, x \leq 10\}$  dan set  $R = \{\text{huruf vokal}\}$ .

Lengkapkan gambar rajah Venn pada ruang jawapan dengan set  $Q$  dan set  $R$ , seterusnya lorek kawasan bagi  $(P \cap Q') \cup R$ .

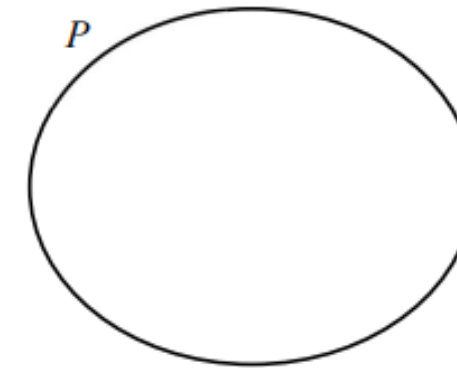
Diagram 8 in the answer space shows part of an incomplete Venn diagram with the condition  $\xi = P \cup Q \cup R$ . Given the set  $P = \{x : x \text{ is a prime number}, x \leq 10\}$ ,

set  $Q = \{x : x \text{ is an even number}, x \leq 10\}$  and set  $R = \{\text{vowel letters}\}$ .

Complete the Venn diagram on the answer space with sets  $Q$  and  $R$ , then shade the area of  $(P \cap Q') \cup R$ .

[4 markah / marks]

Jawapan / Answer :



Rajah / Diagram 8



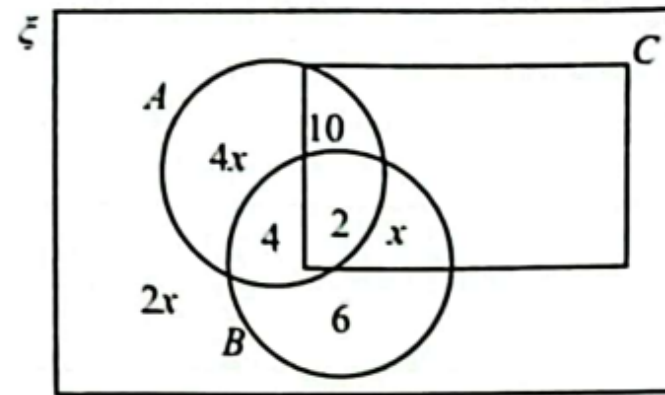
**SELANGOR**

**OPERASI SET**

**KEDAH**

4 Rajah 2 ialah gambar rajah Venn yang menunjukkan bilangan unsur dalam set semesta,  $\xi$ , set  $A$ , set  $B$  dan set  $C$ .

Diagram 2 is a Venn diagram showing the number of elements in the universal set,  $\xi$ , set  $A$ , set  $B$  and set  $C$ .



Rajah 2  
Diagram 2

(a) Diberi  $n(A) = n(B \cup C)'$ , cari nilai  $x$ . [2 markah]  
Given  $n(A) = n(B \cup C)'$ , find the value of  $x$ . [2 marks]

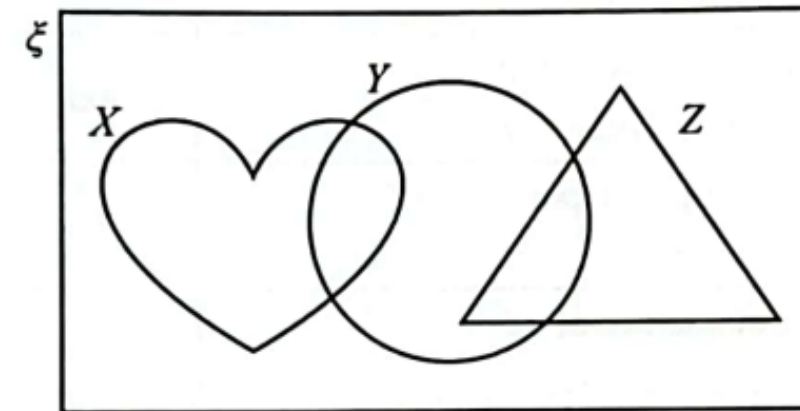
(b) Gambar rajah Venn di ruang jawapan menunjukkan set  $X$ , set  $Y$  dan set  $Z$  dengan keadaan set semesta,  $\xi = X \cup Y \cup Z$ .  
Pada rajah di ruang jawapan, lorekkan set [3 markah]

The Venn diagram in the answer space shows set  $X$ , set  $Y$  and set  $Z$  such that the universal set,  $\xi = X \cup Y \cup Z$ .

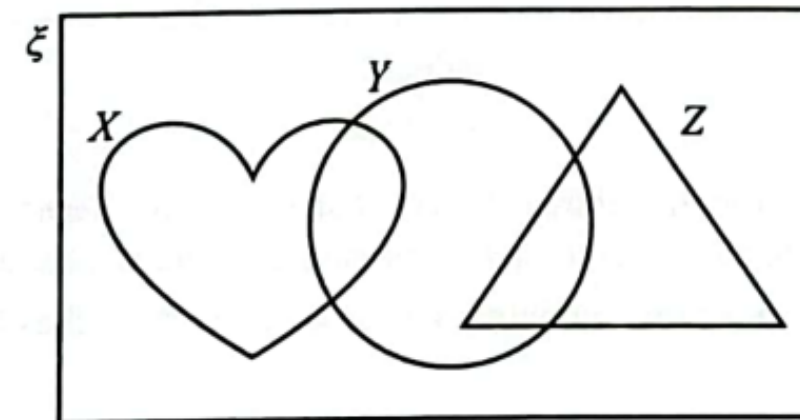
On the diagram in the answer space, shade the set [3 marks]

- (i)  $X \cup Z$ ,
- (ii)  $X \cup (Y \cap Z)'$ .

(b) (i)  $X \cup Z$



(ii)  $X \cup (Y \cap Z)'$



**SBP****OPERASI SET****KEDAH**

- 14 Satu tinjauan telah dilakukan terhadap 40 orang murid tentang alat peranti yang dimiliki oleh murid Tingkatan 5 Bestari di sebuah sekolah. Terdapat tiga alat peranti yang disenaraikan iaitu tablet ( $P$ ), telefon pintar ( $Q$ ) dan laptop ( $R$ ). Maklumat berikut menunjukkan keputusan tinjauan tersebut.

*A survey was conducted on 40 pupils about the gadgets owned by Form 5 Bestari pupils in a school. There are three gadgets listed which are tablets ( $P$ ), smartphones ( $Q$ ) and laptops ( $R$ ). The following information shows the results of the survey.*

- 16 orang murid memiliki tablet  
*16 pupils have tablets*
- 17 orang murid memiliki telefon pintar  
*17 pupils have smartphones*
- 18 orang murid memiliki laptop  
*18 pupils have laptops*
- 6 orang murid memiliki tablet dan telefon pintar  
*6 pupils have both tablets and smartphones*
- 7 orang murid memiliki telefon pintar dan laptop  
*7 pupils have smartphones and laptops*
- 2 orang murid memiliki tablet, telefon pintar dan laptop  
*2 pupils have tablets, smartphones and laptops*
- Bilangan murid yang memiliki telefon pintar sahaja ialah dua kali bilangan murid yang memiliki laptop sahaja.  
*The number of pupils who has smartphones only is two times the number of pupils who has laptops only.*

- (a) Lengkapkan gambar rajah Venn pada ruang jawapan berdasarkan maklumat yang diberikan.  
*Complete the Venn diagram in the answer space based on the given information.*
- [3 markah]  
[3 marks]
- (b) Nyatakan  
*State*
- (i) bilangan murid yang memiliki telefon pintar sahaja.  
*the number of pupils who have smartphones only.*
  - (ii) bilangan murid yang memiliki tablet dan laptop.  
*the number of pupils who have tablets and laptops.*
  - (iii) bilangan murid yang memiliki tablet sahaja.  
*the number of pupils who have tablets only.*
  - (iv) bilangan murid yang tidak memiliki tablet, telefon pintar atau laptop.  
*the number of pupils who do not have tablet, smartphone or laptop.*

[4 markah]  
[4 marks]

- 14 (c) Hitung  $n((P \cap Q)' \cap R)$ .  
*Calculate  $n((P \cap Q)' \cap R)$ .*

[2 markah]  
[2 marks]

Jawapan / *Answer:*

(a)

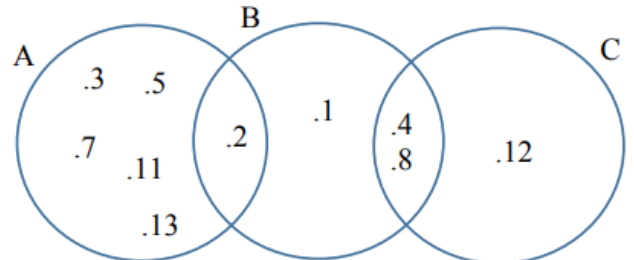
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**SKEMA JAWAPAN :**

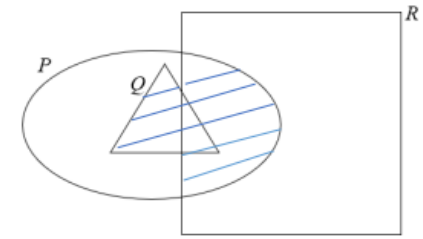
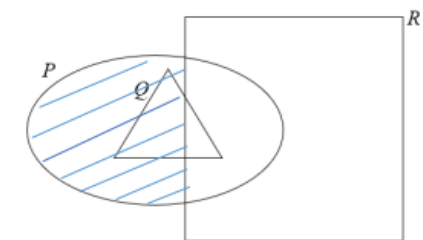
**OPERASI SET**

**JOHOR**

13	(a) (i) $A = \{2,3,5,7,11,13\}$ $B = \{1,2,4,8\}$ $C = \{4,8,12\}$	1 1 1
	(a) (ii)	1 1
	(b)(i)	1
	(b) (ii)	2

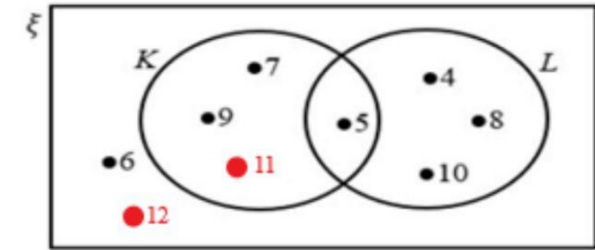


Nota :  
i) beri 1 markah jika bentuk dilukis dengan betul dengan Kawasan persilangan yang betul dengan 2 unsur yang salah

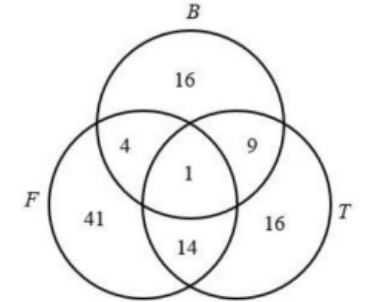


**MELAKA**

13	(a)(i) Set $K = \{5, 7, 9, 11\}$ Set $L = \{4, 5, 8, 10\}$	1 1	
	(a)(ii)	3	5
	(b)(i)	2	
	(b)(ii)	1	
	(b)(iii)	1	4



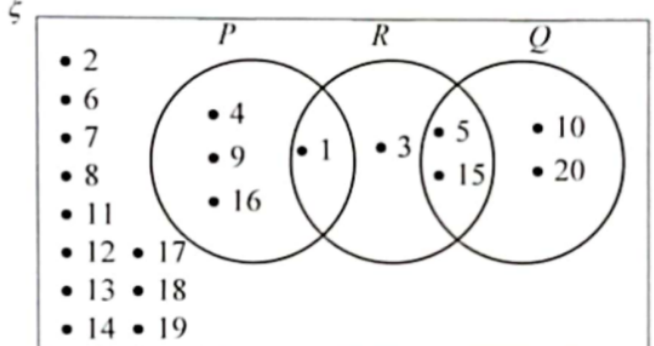
Nota :  
1. 3 set dilukis dan dilabel dengan betul, dengan unsur yang salah atau tanpa unsur, beri 2m  
2. Set K dan L dilukis dan dilabel, dengan unsur yang betul, beri 2m  
3.  $K \cap L$  dilihat, beri 1m



Nota :  
1. Jika  $n(F \cap B \cap T) = 4$  dan  $n(F \cap T \cap B) = 14$  dan  $n(T \cap B \cap F) = 9$ , beri 1m  
2. Jika  $n(B \cup T) = 41$  dan  $n(F \cup T) = 16$  dan  $n(F \cup B) = 16$ , beri 1m

**N9**

13	(a) Set $P = \{1, 4, 9, 16\}$ Set $Q = \{5, 10, 15, 20\}$ Set $R = \{1, 3, 5, 15\}$	P1 P1 P1
	(b) (i)	P3
	(ii) $(P \cup Q) \cap R' = \{4, 9, 10, 16, 20\}$	P1 P1



Nota :  
1. Tiga set dilukis dan dilabel dengan betul, dengan unsur salah atau tanpa unsur, beri P2  
2.  $P \cap R \neq \phi$  atau  $R \cap Q \neq \phi$  atau  $P \cap Q = \phi$  dilihat, beri P1  
3. Terima apa-apa bentuk bagi ketiga-tiga set.

**PERLIS**

13	(a) (i) $\{24,30\}$ $\{23, 29, 31\}$ $\{24, 26, 28, 30\}$	1 1 1
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**PERAK**

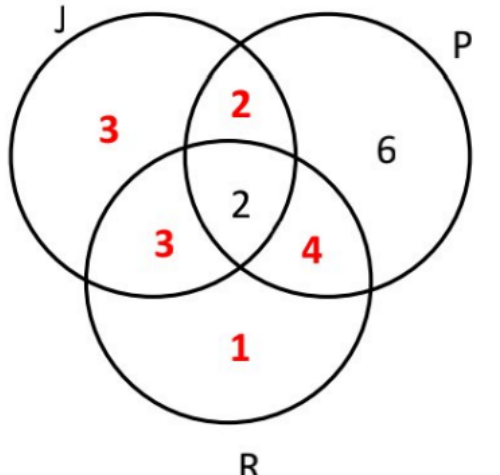
(c)	<p>Kelima -lima jawapan betul bagi bilangan unsur. <i>All five answers are correct for the number of elements.</i></p> <p>Nota: 3@4 jawapan betul bilangan unsur ( 2m ) 2 jawapan sahaja betul ( 1m )</p>	3
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**SKEMA JAWAPAN :**

**OPERASI SET**

**PERAK**

(c)



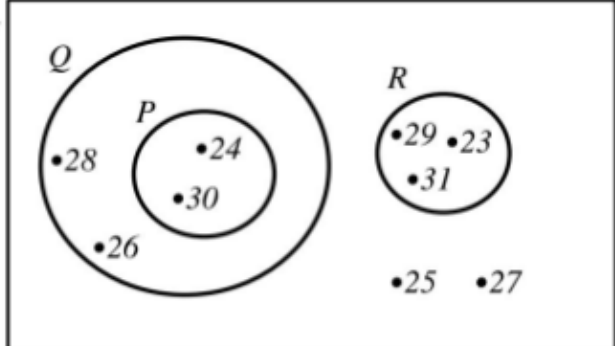
Kelima -lima jawapan betul bagi bilangan unsur.  
*All five answers are correct for the number of elements.*

Nota: 3@4 jawapan betul bilangan unsur ( 2m )  
 2 jawapan sahaja betul ( 1m )

		3
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**PERLIS**

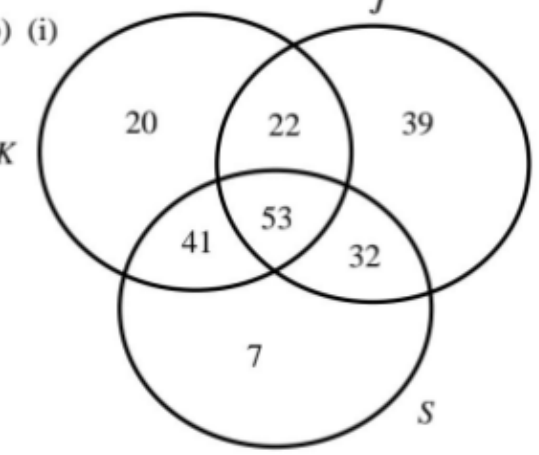
(ii)



Nota

- Lukis 3 set dengan betul tanpa label atau label salah – beri 2m
- Lukis 2 set betul tanpa label atau label salah – beri 1 m
- Lukis set R tidak bersilang dengan set P atau Q – beri 1 m
- Terima apa-apa bentuk set

(b) (i)



Nota  
 Mana-mana 3 bilangan diletakkan di tempat yang betul-beri 1 m  
 Tidak terima sekiranya ada "dot"

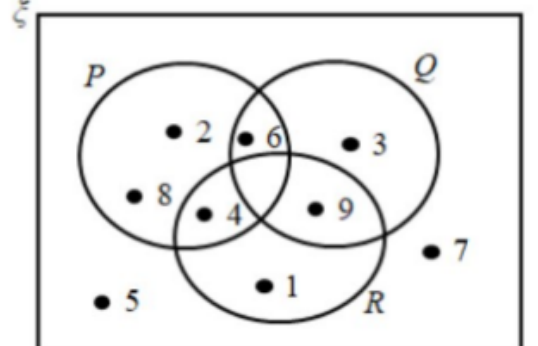
(ii) 214

		3
		2
		1

**SMKA/SABK SET 1**

13 (a)  $P = \{ 2, 4, 6, 8 \}$   
 $Q = \{ 3, 6, 9 \}$   
 $R = \{ 1, 4, 9 \}$

(b)



(c)  $\{2, 3, 5, 6, 7, 8\}$

		1
		1
		1
		3
		1
		1

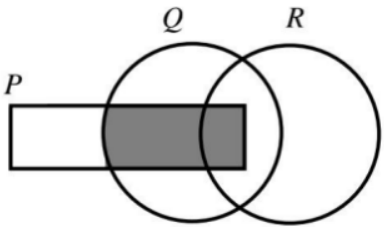
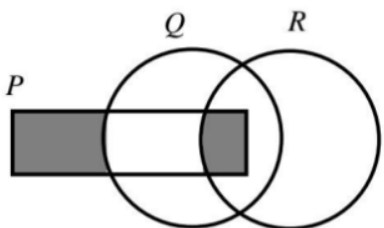
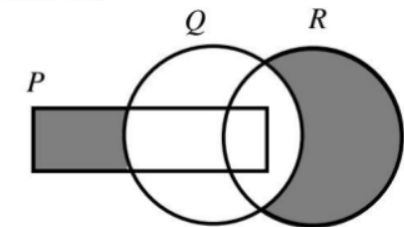
**TERENGGANU MPP3**

	(b) $\{4, 5, 7, 8, 10, 11, 12, 13, 14, 15\}$	1M
	(c) 10	1M

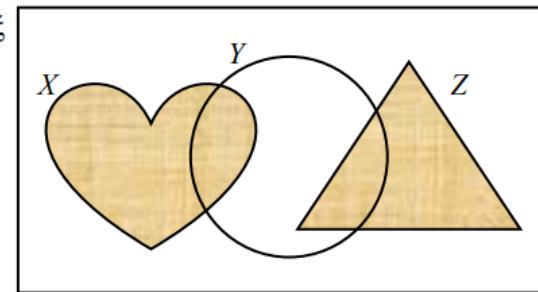
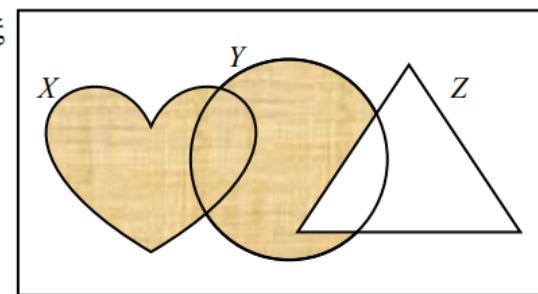
**SKEMA JAWAPAN :**

**OPERASI SET**

**SMKA/SABK SET 2**

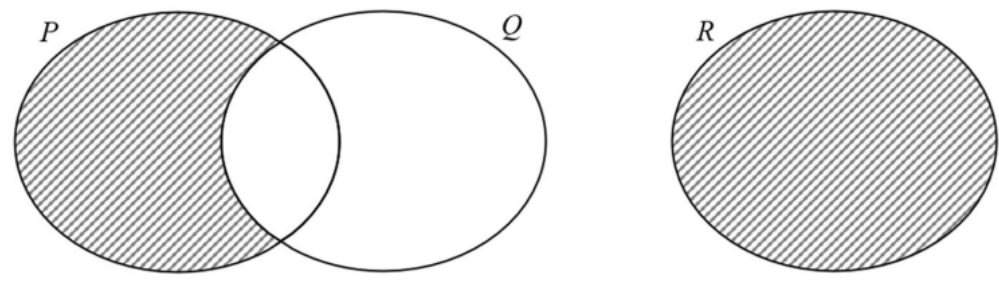
2	(a)		1
	(b)		2
		Nota: Beri 1m	
			
		[ 3 m ]	

**SELANGOR SET 2**

4	(a)	$4x + 4 + 2 + 10 = 4x + 2x$ atau setara / or equivalent $x = 8$	1 1
	(b)(i)	$X \cup Z$	
			1
	(ii)	$X \cup (Y \cap Z)$	
			2
		Nota: $(Y \cap Z)$ dilihat beri 1 markah. Note: $(Y \cap Z)$ seen award 1 mark.	

**KEDAH**

8.



Set Q dan set R dilukis dan dilabel dengan betul

Nota:

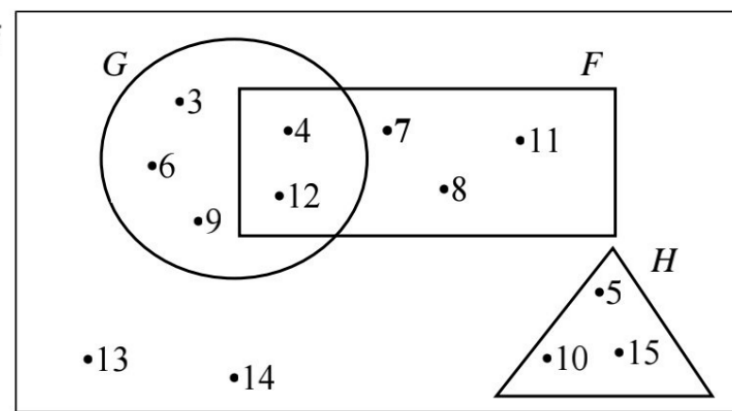
- Set Q atau set R di lukis dan dilabel dengan betul, terima 1m.
- Lukisan tanpa label, terima 0m

Lorek dengan tepat bagi  $(P \cap Q') \cup R$

Nota:  
Lorek  $P \cap Q'$  terima 1m

**TERENGGANU MPP3**

10 (a)



Nota:

- Tanpa ●, beri 2M (syarat semua unsur betul)
- $F \cap G$  atau  $G \cap H = \emptyset$  atau  $F \cap H = \emptyset$ , beri 1M
- Set F, G dan H betul (tanpa unsur@unsur salah), beri 1M

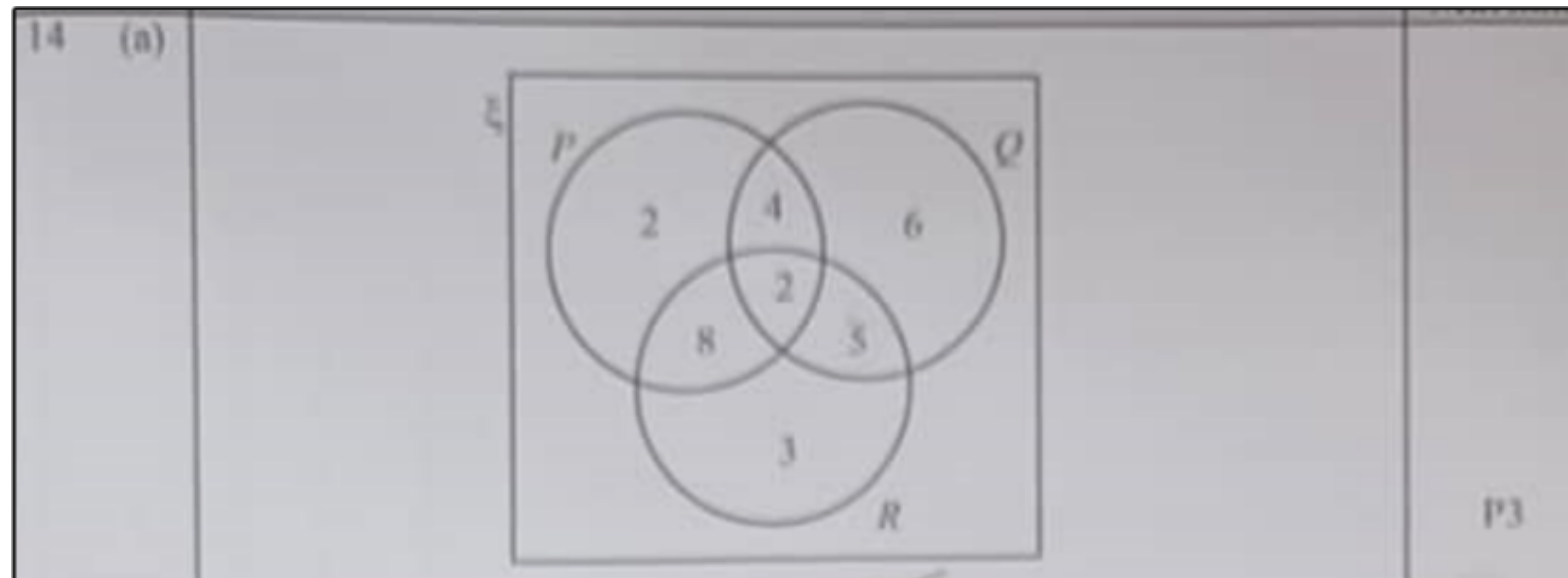
**TERENGGANU MPP3**

	1M	1M
(b)	{4, 5, 7, 8, 10, 11, 12, 13, 14, 15}	
(c)	10	

SBP

SKEMA JAWAPAN :

OPERASI SET



(b)(i)	6	P1
(ii)	10	P1
(iii)	2	P1
(iv)	10	P1
(c)	8+3+5 ← ni kena ada utk dpt	K1
	16	N1

Nota

- Tiga set ditulis dan dilabel dgn betul dgn menggunakan 2, 4, 5, 6 dlm set Q y betul beri (P2)
- Tiga set ditulis dan dilabel dgn betul, tanpa bt- unstr, beri (P1)
- Tentukan apa² btk log ketiga² set.