Sets & Venn Diagrams
Difficulty: Easy
Question Paper 1

Level	IGCSE
Subject	Maths (0580/0980)
Exam Board	CIE
Topic	Number
Sub-Topic	Sets & Venn Diagrams
Paper	Paper 2
Difficulty	Easy
Booklet	Question Paper 1

Time allowed: **34 minutes**

Score: **/26**

Percentage: **/100**

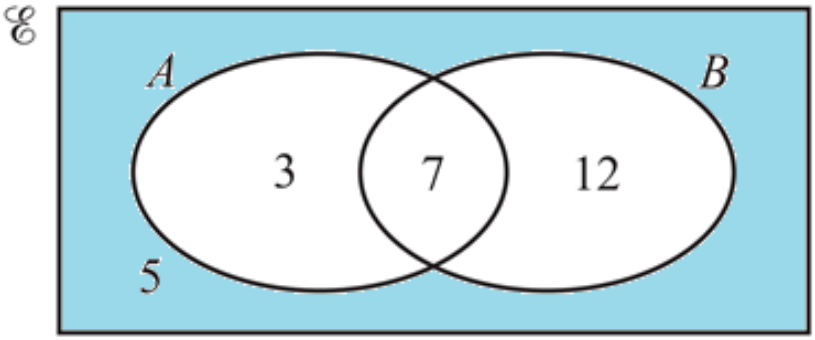
Grade Boundaries:

CIE IGCSE Maths (0580)

A*	A	B	C	D	E
>88%	76%	63%	51%	40%	30%

CIE IGCSE Maths (0980)

9	8	7	6	5	4	3
>94%	85%	77%	67%	57%	47%	35%



The Venn diagram shows the numbers of elements in each region.

(a) Find $n(A \cap B')$. [1]

(b) An element is chosen at random.

Find the probability that this element is in set B.

[1]

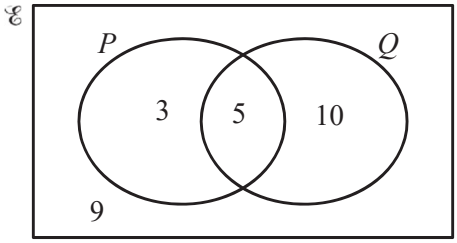
(c) An element is chosen at random from set A.

Find the probability that this element is also a member of set B.

[1]

(d) On the Venn diagram, shade the region $(A \cup B)'$. [1]

Question 2



The Venn diagram shows the number of elements in each set.

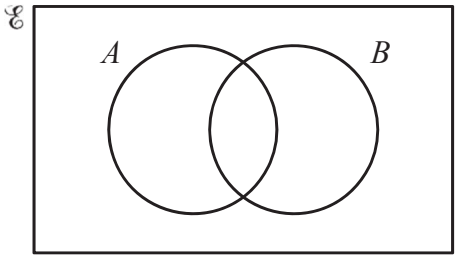
(a) Find $n(P' \cap Q)$. [1]

(b) Complete the statement $n(.....) = 17$. [1]

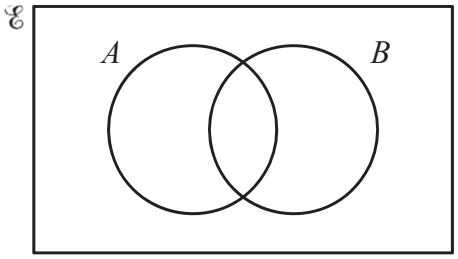
Question 3

[2]

Shade the region required in each Venn diagram.



$(A \cup B)'$



$A' \cap B$

Question 4

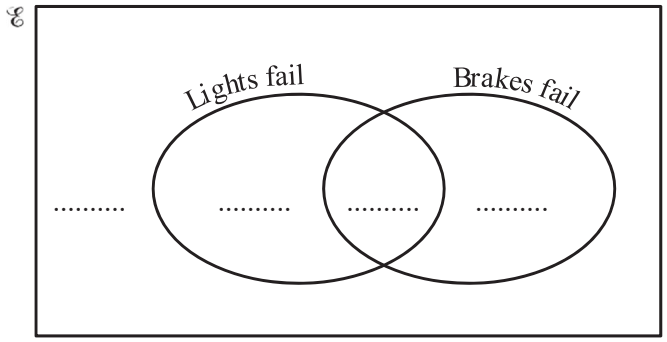
The lights and brakes of 30 bicycles are tested.
The table shows the results.

	Lights	Brakes
Fail test	3	9
Pass test	27	21

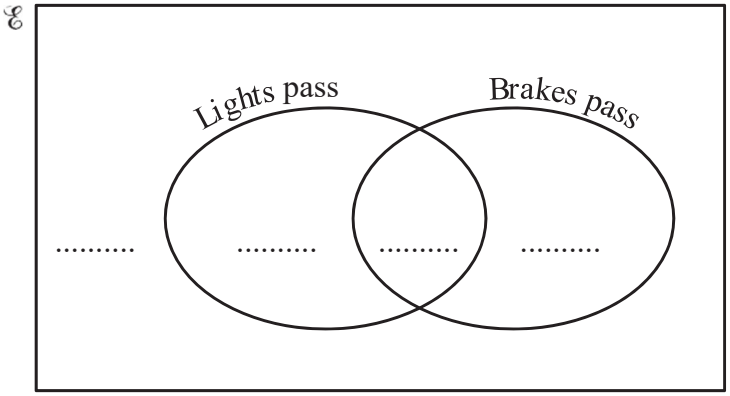
The lights and brakes both failed on one bicycle only.

$\mathscr{E}$ = {30 bicycles}
Complete the Venn diagrams.

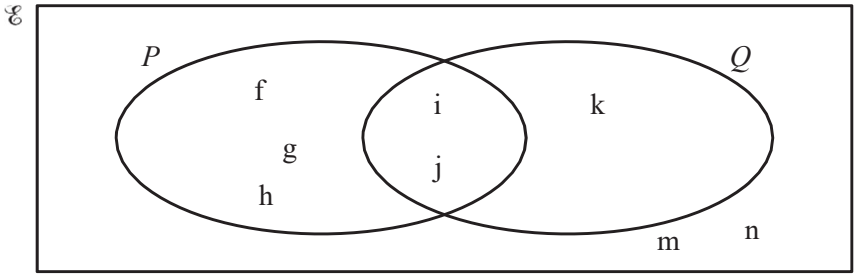
(a) [2]



(b) [2]



Question 5



(a) Use the information in the Venn diagram to complete the following.

(i) $P \cap Q =$ [1]

(ii) $P' \cup Q =$ [1]

(iii) $n(P \cup Q)' =$ [1]

(b) A letter is chosen at random from the set Q.

Find the probability that it is also in the set P.

Find the probability that it is also in the set P. [1]

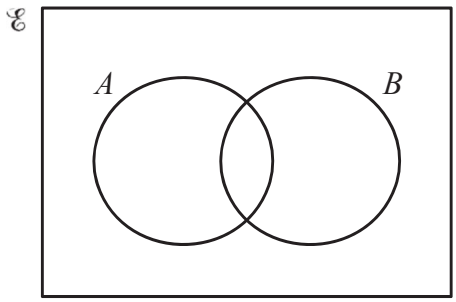
(c) On the Venn diagram shade the region $P' \cap Q$. [1]

(d) Use a set notation symbol to complete the statement.

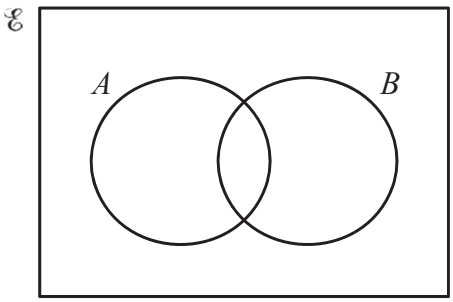
$\{f, g, h\}$ ..... P [1]

Question 6

Shade the required region on each Venn diagram. [2]



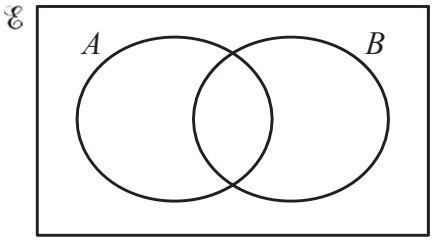
$A' \cup B$



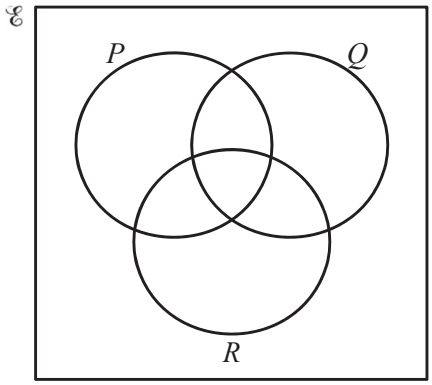
$A' \cap B'$

Question 7

Shade the required region in each of the Venn diagrams.



A'

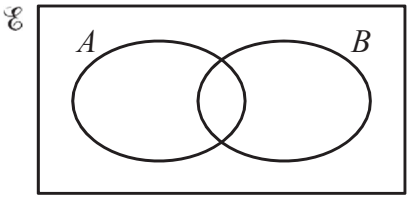


$(P \cap R) \cup Q$

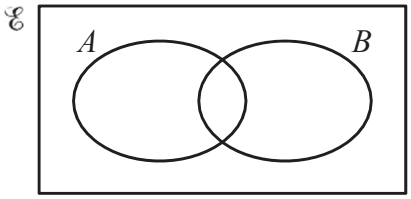
[2]

Question 8

Shade the required region on each Venn diagram. [2]



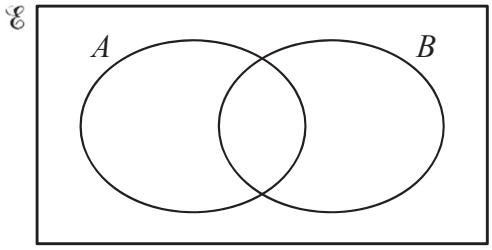
$A \cup B'$



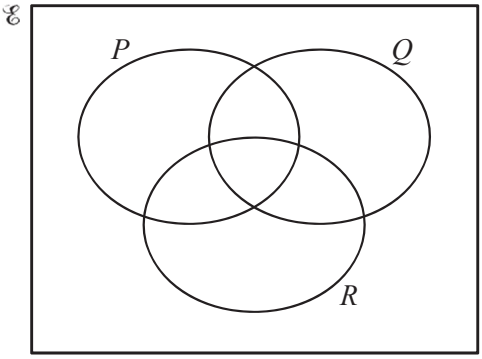
$(A \cap B)'$

Question 9

Shade the required region on each Venn diagram.



$A \cap B'$



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

[2]